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Building ECONOMY HOUSES for the mass market....

1948.

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On house after house... make these advantages of Celotex Sheathing work for you... before, during, and after your sale:

GREATER INSULATION—Three times the insulation value of wood sheathing.

STRONGER CONSTRUCTION—Greater bracing strength than horizontally applied wood sheathing.

EASY APPLICATION—Big boards...square edges... 4-feet wide, in lengths up to 12 feet...or 2-foot x 8-foot lengths, tongue-and-groove long edges, for horizontal application. Goes up fast.

MOISTURE PROTECTION—Factory pre-coating of asphalt on both surfaces and all edges. Patented Ferox* treatment resists termite and dry-rot attack.

WIND-TIGHT WALLS-No open joints.

Ask your local lumber dealer for complete information on Celotex *Insulating* Sheathing ...or write direct to

THE CELOTEX CORPORATION, CHICAGO 3, ILLINOIS

* REG. U. S. PAT. DFF.

CELOTEX The Greatest Name in Insulation

BUILDING BOARD . . . INSULATING SHEATHING AND LATH . . . CELO-ROK ANCHOR LATH AND PLASTER . . . CEMESTO CELO-ROK WALLBOARD . . . INTERIOR FINISH PRODUCTS . . . FLEXCELL . . . ASPHALT ROOFING . . . CELO-SIDING

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Ideal windows for the INDUSTRY-ENGINEERED HOUSE

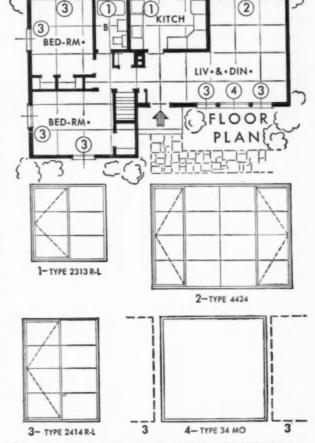
Fenestra Residence Steel Casements are designed for beauty plus utility . . . at low cost made possible by standardization. Thus, they fit the purpose of the Industry-Engineered Houses . . . a lot of value for the money.

Fenestra Casements enable you to provide extra beauty, easy opening, better ventilation and many other benefits with standard windows. Fenestra Casement dimensions are co-ordinated with other materials used in Industry-Engineered Houses. You benefit in several important ways:

- 1. Lower first cost resulting from mass production economies.
- 2. Better, more prompt service . . . standardization enables your dealer to fill your needs from stock.
- 3. Savings in installation . . . frame and sash are factoryassembled, prime-painted and prepared for attachment of hardware, screens and storm sash.

IN ANY TYPE OF HOUSE you can provide a right window for each need with standard Fenestra Casements. This complete line even includes windows for special uses, such as over the sink or buffet ... all standardized to keep costs down and speed construction . . . all including the many benefits listed below.

For full information on types and sizes, write to Detroit Steel Products Co., Dept. AB-6, 2260 E. Grand Blvd., Detroit 11, Mich.





Distinctive Appearance . . . trim lines

Low Cost . . . standardized

More Daylight . . . less frame

Easy Opening . . . no sticking

Better Ventilation . . . vents swing out

More Weather-Tight . . . no warping

Better Storm Sash . . . fitted inside

Convenient Screens . . . interchangeable, inside

Safer Cleaning . . . from inside the room

Lower Upkeep . . . durability of steel

MADE RIGHT BY AMERICA'S OLDEST AND LARGEST STEEL WINDOW MANUFACTURER



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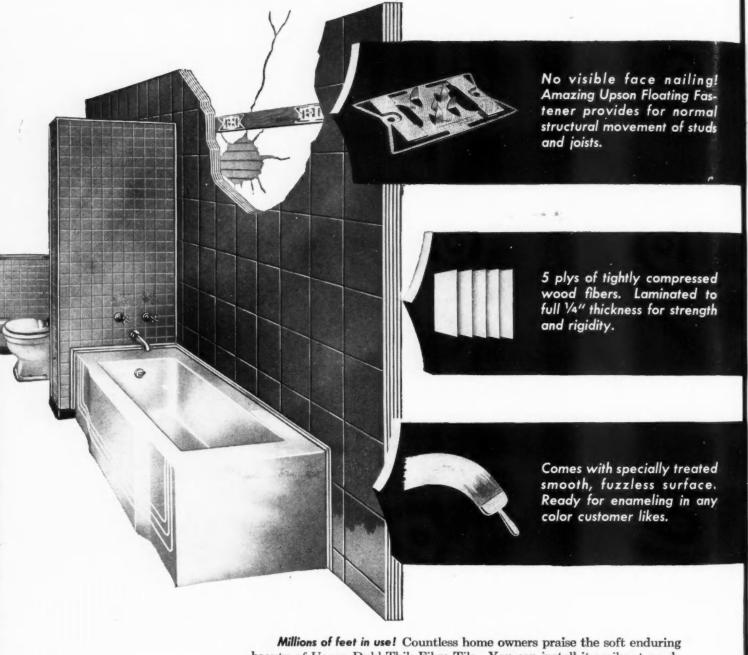
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Millions of feet in use! Countless home owners praise the soft enduring beauty of Upson Dubl-Thik Fibre Tile. You can install it easily at good profit, yet finished cost to customer will be lower than tile or tile-like materials.

Not thin, brittle, rough or spongy. Won't crack or loosen. Apply on furring right over old plaster or direct to studs in new construction. Ask your lumber dealer for new detailed Direction Sheets, or send the coupon below—now!



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AMERICAN BUILDER

Founded-1879

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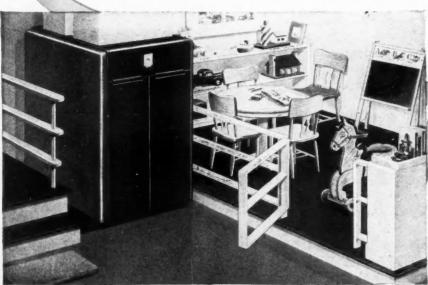
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FIRST in heating and plumbing

because they're the best for both important jobs!



The attractive little playroom is a good example of the practical use you can make of a small basement when your heating unit is both good looking and compact. The MOHAWK Winter Air Conditioner shown here lends a distinctive, pleasing decorative note to this basement setting, while providing clean, dependable heat to the entire house. Famous for its beauty, sound engineering features and sturdy construction, the Mohawk burns natural, manufactured, mixed or liquefied petroleum gas with maximum efficiency and economy.



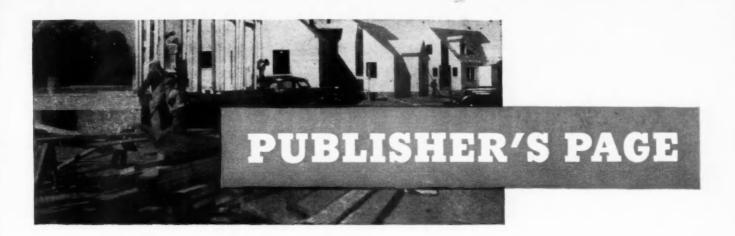
You achieve the ultimate in bathroom luxury when you choose the NEO-ANGLE bath and harmonizing fixtures from the American-Standard line. The bath, occupying space only about four feet square, is the recessed model of the Neo-Angle with its two integral seats and wider, flatter bottom; the lavatory is the graceful ROXBURY with large square bowl, tapered legs, and convenient towel bars. Fittings and other exposed metal finished in gleaming, non-tarnishing Chromard. The water closet is the MASTER ONE-PIECE, with quiet, thorough syphon vortex water action.

As the world's largest manufacturer of heating equipment and plumbing fixtures, American-Standard is your most dependable source for both. Not only does American-Standard give you the widest choice of styles, types, models and sizes, but it also is your assurance of the finest quality in both heating equipment and plumbing fixtures. That's why more American homes have heating and plumbing by American-Standard than by any other single company. Yes, you'll find that it pays to "make it American-Standard all the way"! For detailed information about the complete range of products, contact your Heating and Plumbing Contractor. American Radiator & Standard Sanitary Corporation, P.O. Box 1226, Pittsburgh 30, Pa.



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First in Heating and Plumbing

LOOK FOR THE 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, for all fuels—Water Heaters—Radiators, Convectors, 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.



T.V.A.—An Example in Socialism

Experience with the Tennessee Valley Authority illustrates, as has been illustrated by so much of the world's experience, that adoption of a little socialism will almost certainly cause a demand for more and more of it and for more and more taxes to finance it. This should be remembered in considering the present socialistic movement for government provision and subsidization of housing for low income groups. If this movement is successful, the same people who are promoting it will soon be advocating subsidized socialized housing for higher income groups-i.e., for every group having enough votes to be an important factor in elections.

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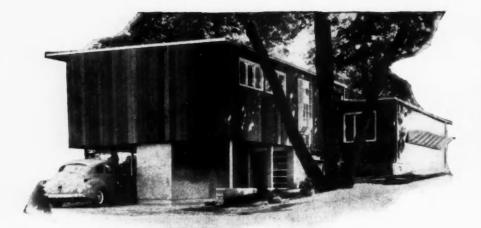
The history of the Tennessee Valley Authority shows how little the assurances of promoters of socialistic policies regarding their real intentions can be trusted. The preamble of the act creating it stated specifically what its purposes purported to be, including improvement of navigation, flood control and reforestation. No mention what-ever was made of production of electric power, because of doubt whether the federal government had constitutional authority to engage in competition with private companies producing power. Yet ever since its establishment T.V.A. has devoted itself principally and increasingly to production of power by bydro-electric plants. And now, after having spent \$915 million, it has asked Congress for an *initial* appropriation of \$4 million to start a total expenditure of \$84 million on steam facilities for generating power.

In 1935 David E. Lillienthal, a director of T.V.A., said, "By selling the power, the federal government will not only receive a cash return, but in the course of years will repay the investment in navigation and flood control works." Instead of the "cash return" and "repayment of investment" promised, T.V.A. is back thirteen years later asking Congress for more big appropriations. Meantime, because of its failure to earn enough to pay interest or taxes, the comparatively small number of people served by it have been subsidized by all the nation's people who

pay federal taxes.

Private power companies, like other business concerns, get the capital they invest in expansion directly and indirectly from the net income they have left after paying interest and large taxes. Why, then, cannot T.V.A., which does not pay comparable interest and taxes, make enough earnings to provide for its expansion without asking more appropriations from Congress? The answer is obvious. T.V.A. is governmentowned and managed; it is the nation's largest completely socialistic enterprise; and all the experience of the world indicates that democracy in government and successful management of socialized enterprises are entirely incompatible. There have been a few instances of fairly successful management of socialized enterprises by autocratic governments. There is no instance in history of equally successful management by any democratic government.

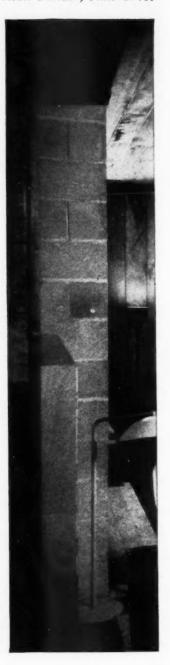
Same O. Drum.



IDEA HOUSE FEATURES

" limate at "
your fingertips

Servel <u>All-Year</u> Air Conditioning provides carefree comfort through every season



Co-sponsored by the Walker Art Center in Minneapolis and the Home Institute of the Northwestern National Bank, Idea House II is one of a series built to demonstrate advanced ideas in home planning and equipment. It features one of the most important developments in year-round comfort . . . "climate at your fingertips" provided by Servel All-Year Air Conditioning.

In the Idea House, the homeowner selects the climate indoors . . . through every season . . . without ever having to go downstairs. The Servel All-Year Air Conditioner is controlled automatically by the Selectrol—a combination thermostat and control device—conveniently placed in the main-floor living area. The homeowner merely dials the temperature he wants and flips a switch for cooling or heating.

Cools in summer, heats in winter

In summer, the Servel unit refreshingly refrigerates the air. It removes sticky humidity and filters out dust,

dirt, and irritating pollen, bringing welcome relief for asthma and hay fever sufferers. Furniture and drapes stay fresh and new-looking longer. There's lots less housework, too.

During the winter months, the same compact Servel unit supplies plenty of clean, even warmth. Just the right amount of moisture is added for comfort. There are no "layers" of hot or cold air. And in between seasons, the Servel All-Year Air Conditioner circulates cleaned air throughout the house at the prevailing outdoor temperatures.

Operating costs are low

Yet with all these benefits, the Servel All-Year Air Conditioner costs surprisingly little to operate. Maintenance costs are low, too. Like the famous Servel Gas Refrigerator, the Servel All-Year Air Conditioner hasn't a single moving part in its refrigeration system to make noise, to wear or need repair.



The Minneapolis Idea House II dramatically illustrates how Servel All-Year Air Conditioning can help you bring a "new quality of living" the year-round to any home you may design or build. What's more, when you plan your new houses around the Servel unit, you'll find it possible to make many design innovations and construction economies.

Get the facts on Servel All-Year Air Conditioning from your local Gas Company or Servel dealer. Or write to Servel, Inc., 1806 Morton Ave., Evansville 20, Ind.

Sewel

All-Year AIR CONDITIONER

"I Like Supertreated Pol-mer-ik

because it forms a tougher, more durable film!"



That's what EVERETT L. EDWARDS of Jacksonville, Florida, thinks about Supertreated Pol-mer-ik. Like all master painters, he wants a tough, enduring paint film that applies evenly and easily . . . one that will stand up to wear and weather. He finds these qualities in Supertreated Pol-mer-ik.

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Pol-mer-ik gives you these EXTRA VALUES AT NO EXTRA COST. If you don't know your local Pol-mer-ik dealer, write for his name.

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100% PURE LINSEED OIL

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EXTRA VALUE AT NO EXTRA COST

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Send additional information on Supertreated Pol-mer-ik Linseed Oil.

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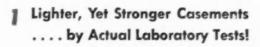
Production in 26 States and Canada

Amazing New Manufacturing Method Provides Contractors

IMMEDIATE DELIVERY ON STEELCRAFT STEEL CASEMENTS!

HERE'S HOW I SOLVED MY DELIVERY PROBLEMS WITH IMMEDIATELY AVAIL-ABLE STEELCRAFT STEEL CASEMENTS!





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- Prompt Delivery! . . . Your Order Shipped Without Delay!





A Steel Casement, Basement, or Utility Window for a Variety of Uses!

EW! STEELCRAFT FORMED-STEEL LINTEL



A completely new Steelcraft product . . . amazingly light-er, yet fully as strong as any lintel on the market! Indicate on coupon your request for more complete information!

FROM dealer to consumer and back again the word is spreading: STEELCRAFT gives those ADDED BENEFITS - of strength, lightness . . . ease of installation, operation, and cleaning . . . beautiful appearance. These many advantages are possible because of remarkable new production methods that bring streamlined automotive assembly-line procedure into casement manufacturing, result in precision fit of all parts and lasting, eye-appealing protective finish. It's no wonder, then, that contractors everywhere are demanding STEELCRAFT Steel Casements, for advantages of finer engineered casement construction and greater durability . . . and prompt delivery. Write today for complete details about sensational STEELCRAFT Casement Windows.





Send for this interesting booklet on casement in-stallation . . for some handy hints that might save you a headache or two!



STEELCRAFT MANUFACTURING COMPANY 9071 Blue Ash Road, Rossmoyne, Ohio (near Cincinnati) Please send me information as indicated:

- Complete details on STEELCRAFT Casement line Complete details on STEELCRAFT Lintels
- Free booklet on Casement Installation

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The AMERICA ELLONGERICAL STATE OF THE AMERICA STATE OF THE OF THE AMERICA STATE OF THE OF THE

The smart way to buy a house

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An institute what kind of exterior cracks on the adversarial found. Tomake Shouthard exterior cracks and atom time keep along and some constitution of the age to ack continuous terror strained about almost kinds the age to ack continuous builder or building.



Here is a typical ad from a series that has already begun in The American Home and Better Homes and Gardens. Through these magazines, Armstrong's messages will be carried to almost six million readers every month—that means millions of good month—that means millions of good prospects are getting better acquainted with Armstrong products.





We're telling your customers about the new Temlok

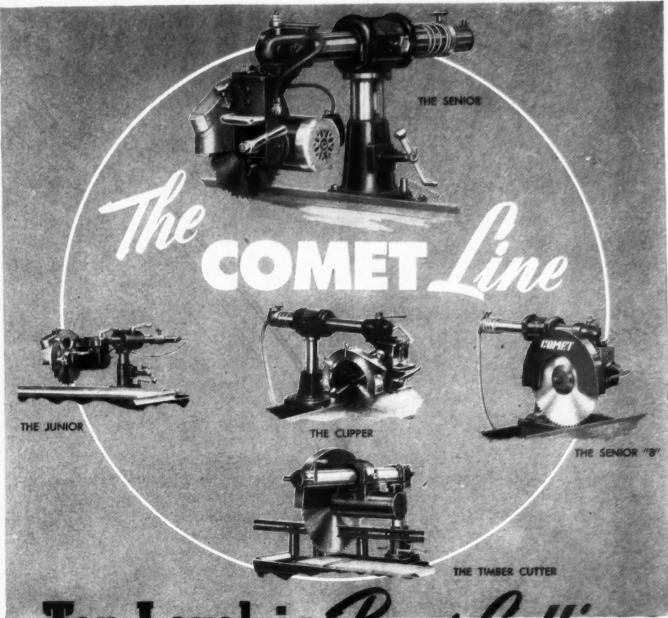
To bring the quality story of the new Temlok® to more prospective home owners, Armstrong has begun a long-range program of consumer advertising in leading national magazines.

Every month from now on, advertisements like this will appear in The American Home and Better Homes and Gardens magazines. These magazines are directed almost entirely to people who are looking for ideas about home building, remodeling, and modernizing. They are your best prospective customers.

The new national advertising will carry full-color illustrations showing typical installations of Armstrong's Temlok and Monowall[®]. And each advertisement will direct them to their local lumber dealers.

Helpful advertising creates customer good will. You can cash in on this growing product acceptance. Ask your Temlok supplier today for samples of Temlok and the other Armstrong's Building Materials. Or write for further information. Armstrong Cork Company, Building Materials Division, 1606 Ross Street, Lancaster, Pennsylvania.





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In everything there is always a standout.

In the radial power saw field it's Comets!

Tough, powerful units, they nevertheless are feather-easy to handle. Comets are loaded with advantages born of long-time field testing. They make ALL the cuts with flashing

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speed and superb accuracy. And they last ... longer. Owners will tell you Comets are the top level in power cutting. They are prejudiced, of course, but for excellent reasons. Remember, Comets give "more cuts per dollar." See your Comet dealer or write direct. 2029-33 Santa Fo Avenue, Los Angeles 21, California



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AUTOMATIC HEATING

WRITES "SALES SUCCESS" ON NEW HOUSING PROJECTS!

—say leading builders like Argo Homes Company (Elmont, L. I., N. Y.)

For their universal acceptance among home buyers—for their compactness, dependability, and low-cost operation—for the finest in automatic home heating—Argo Homes Company chose Chrysler Airtemp units for all of their 1,300 new homes in the huge "Argo Village" housing development in Elmont, Long Island (N. Y.).

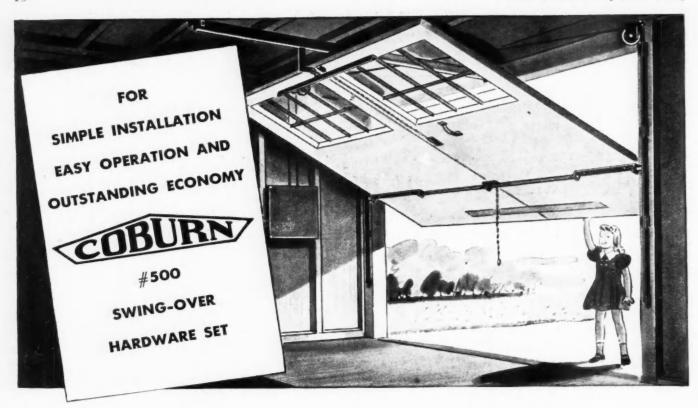
More and more, builders who plan far ahead are specifying Chrysler Airtemp heating units. For this is the name that buyers know and trust. It makes the selling job easier . . . and the year in, year out dependability of these Chrysler-engineered heating units wins buyer good will and enhances the builder's local reputation.

Design these priceless "plus factors" into your homes—specify Chrysler Airtemp! Your Airtemp dealer will be glad to work with you; why not call him today!





Dayton 1, Ohio
In Canada: Therm-O-Rite Products, Ltd., Toronto

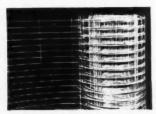


In Garage Door remodeling, smooth operating overhead doors are fast replacing the troublesome swinging type... and the many advantages of the Coburn #500 Hardware Set have made it a leader in the field.

The Coburn #500 Set is designed to make installation easy, foolproof and adaptable to practically all types of garages. Perfect counterbalance assures effortless operation. Coburn #500 is economical too, for even though it is high in quality, its cost is in the lowest price field.

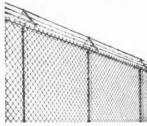
Write today for catalog containing full information on the Coburn #500 Set and on hardware for numerous types of sliding doors—garage, barn, wardrobe, cabinet.

OTHER WICKWIRE SPENCER PRODUCTS



Clinton Welded Wire Fabric

For every type of concrete reinforcement. High, uniform tensile strength. Wide range of styles in gauge and spacing. In sheets or rolls cut to size. Easy to store and install.



Realock Chain Link Fence

Tamper-proof and weather-resistant. Galvanized before and after weaving. Special designs for industrial plants, institutions and residences. Write for catalog.



"Clinton" Brand Hardware Cloth

Made of cold-drawn carbon steel, heavily galvanized after weaving to give added strength at intersections. In all standard meshes and widths.







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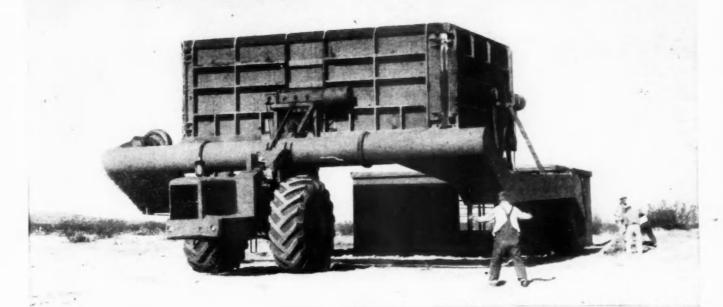
WICKWIRE SPENCER

A DIVISION OF THE COLORADO FUEL AND IRON CORPORATION
500 FIFTH AVENUE NEW YORK (18) N. Y.



TOURNALAYER

New Job-Proved Home-Building Method



More Profitable 4 Ways

1. Lower Construction Costs

Tournalayer* simplicity has drastically cut total man hours required for home building . . . Skilled labor, usual major cost factor, has been greatly reduced . . . Le Tourneau homes are poured in one piece with no joints or seams to point up or caulk . . . Abundant materials are used . . . Insulating concrete eliminates need for furring, lathing and plastering . . . All this means more saving in man hours and materials!

2. Faster Unit Production

Tournalayer mass-home-building method produces distinctive, permanent homes at the rate of one basic unit per day with each set of forms employed...Number of forms used is determined by contractor...Predesign of each basic unit is possible and any number or combination of various-sized basic units may be utilized in the planning and construction



ARIZONA — Actual job photo of operations at Yuma, Arizona, where 38 homes 1344 sq. ft. in size are currently being completed

of a house...This means virtually unlimited freedom of design!

3. Better Long Range Investment

LeTourneau homes are built of insulating concrete reinforced with steel-masonry homes that are storm-proof and fire safe, qualifying for a much lower than average insurance rate . . . Extremely durable, LeTourneau homes are termite-proof and cost little to maintain . . . They're cooler in summer — cost less to heat in winter . . . Permanence and individuality of

TEXAS — These LeTourneau homes recently completed in South Texas show three variations in architectural treatment.

each house design assures high resale value years from now!

4. Quality Homes That Can Be Sold for Less

LeTourneau homes are not prefabricated, but are permanent, masonry homes that the builder can design individually, yet mass produce and sell for less than the price of a conventional house... These beautiful, well-built homes are now being constructed by firms in North and South America as the low-cost answer to critical need for permanent, livable homes.

R.G.ETOURNEAU INC

Manufacturers of Tournalayers* Longview, Texas
*Trade Mark Reg U. S. Pat. Off.

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UNITED PLASTIC TILE CO.

STATILE TILE



The Modern Way to tile a wall

Beautiful Enduring * Economical

STYLON . . . beautiful, enduring, economical . . . ushers in a new era in the improvement and beautification of interior walls.

New simplicity and speed comes to installation. New permanence and freedom from maintenance problems comes to the wall (old or new) that is transformed by the beauty of STYLON . a beauty that is not just skin deep but beneath which lie STYLON'S amazing qualities of rugged endurance.

Light in weight, STYLON adds almost no construction load. Amazing in textural strength it endures strains of contraction, expansion and settling without damage. It does not check, chip nor crack. It is virtually non-absorbent of moisture . . . it resists alkalis, all common acids, heat, cold, and flame.

The wide versatile range of STYLON'S beautiful colors make practical the creation of almost unlimited decorative schemes. Completely fadeless under all normal conditions, the rare beauty of STYLON walls never dims or grows old.

In home, office, store or industrial plant, STYLON has made possible more beautiful walls, more enduring walls, more economical walls . . . whether installation be new construction, or for improvement and beautification of the old.

Truly . . . STYLON is the modern way to tile a wall.

Whether you are a distributor, dealer, contractor or architect your opportunities with STYLON are great. In both new construction or in the improvement and beautification of existing structures . . . STYLON places in your hands a new-day tile for the construction of enduring, more economical and more beautiful walls. The complete story of STYLON . . . the modern way to tile a wall . . . is told in the booklet offered here. A copy is yours without charge. You will profit by sending for it TODAY!

STYLON wall tiles are uniform in size. Each tile is 41/4" sq. Eight tiles cover one sq. ft. Cap tiles are 41/4" x 21/8".

STYLON is featherweight. One sq. ft. installed weighs but 51/3 oz. ... 10 sq. ft. less than 31/2 lbs. ... an almost negligible load.

STYLON'S flexural strength is amazing . . . ranging from 4000 lbs. to 18,000 lbs. per sq. in.

STYLON will not chip. check, curl or peel. STYLON colors are fadeless under all normal interior conditions.

STYLON is resistant to all alkalis and common acids. It resists soiling . . . is easily and quickly cleaned with a damp cloth.

STYLON is heat resistant to temperatures as high as 175° F. It is completely flame resistant.

STYLON sheds water. Any possible absorption is at a minimum. Under continuous submersion for 10 days, absorption was less than 11 oz. per 100 sq. ft.

STYLON wall-tiles require no costly alteration or preparation wall. They are speedily, easily installed over any smooth, even, non-porous surface . . . new or old . . . plaster, wood, masonite, sheetrock, plywood or stone.

STYLON FADELESS COLORS cover a range of 15 beautiful shades:

Dubonnet Dark Blue Light Blue Mottled Green Pink Mottled Pink Sandstone Green White Noticed Yellow Black
Mottled Yellow Mottled Blue
Pale Yellow Mottled Gray vory Mottled Yellow



United Plastic Tile Company 855-A Commonwealth Avenue Boston 15, Mass.

Please send sample STYLON of the colors given below . . . and the booklet on "Your Opportunity With STYLON".

Your name

Firm Street Address State.

please check nature of your interest ☐ Architect ☐ Dealer ☐ Contractor

☐ Distributor colors wanted:

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choice among designers, bui ... MULTI-FAMILY and MA

since 1937!



PARKLAKE APARTMENTS, Boston . . birthplace of Personalized Heating. 152 luxurious suites, individually winter air-conditioned by Bryant Model VBs, world's most successful vertical units.



BOYSTOWN. New 3-million-dollar addition to Father Flanagan's famous Boystown, Nebraska, houses teen-gee boys in cottages like these. Heated by Bryant Model BA-88 winter air conditioners.

... WHEN BRYANT PIONEERED INDIVIDUAL SUITE HEATING IN A GREAT BOSTON APARTMENT BUILDING

• Bryant Personalized Heating has been proved with spectacular success the country over, in hundreds of large and small apartment buildings, garden-type apartments, row houses, duplexes . . . and in individual home projects that were planned for heating by a central system.

Leaders in the housing field have found that with this improved system, original equipment and operation-maintenance costs are lower... complaints and equipment failures are fewer... buyer and tenant comfort and satisfaction is greater! Personalized Heating, with Bryant project-proved automatic heating equipment, means a new high in comfort and convenience... a new high in operating efficiency... a revolutionary simplification in design, construction and management. It's the new success factor in mass and multifamily housing!



PEACHTREE HILLS APARTMENTS, Atlanta, Georgia, are among the newest and most modern in the South. Owners chose Personalized Heating with Bryant Model VB winter air conditioners.



GREENWOOD GARDENS is a Philadelphia row house development, one of several similar projects in the West Oak Lane section of the city that exist on the West Oak Lane section of the city that uses a total of over 2,000 Bryant Model GF.56 Gravity Warm Air Furnaces.

personalized Heating means radiation heating, too! Above is ARNA ation heating, too! Above is ARNA valley, Arlington, Va., where more valley, Arlington, buildings are individually heated by Bryant Model 26 boilers.

ers, builders and operators of the Nation's <u>Top</u>

in 1948!

...THOUSANDS OF RESIDENTS OF NEW MULTI-FAMILY CONSTRUCTION WILL ENJOY THE ADVANTAGES OF BRYANT PERSONALIZED HEATING!

• North, east, south, west...you'll find Bryant Personalized Heating installations in new multi-family projects all over the country, among them the Tremont Apartments, Allentown, Pa.; Pine Tree Village, Winnetka, Ill., Allenhurst Gardens, Amherst, N. Y.; and more than a dozen projects in and around Houston, Texas. In many of these new developments you'll find Bryant Modernaires, newest vertical winter air conditioners, paired with gleaming white Bryant water heaters, installed in the same small utility closet. With this system, residents will have complete control of all space and water heating equipment serving their homes.

These installations will save owners and operators many thousands of dollars in space, building, installation and maintenance costs. How do we know? Because we've proved it hundreds of times in housing all over the country. And we can prove it in your project! Ask the Bryant representative nearest you to show you the proof in facts and figures with the illustrated presentation, Bryant Personalized Heating.





BRYANT HEATER COMPANY . CLEVELAND, OHIO

One of the Dresser Industries

New Decorative



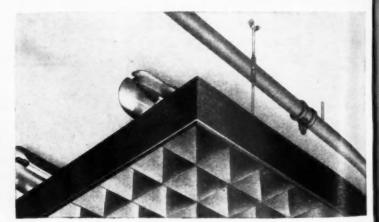
The Modern Ceiling for Modern Interiors

Kawneer's aluminum louvred ceiling-

- Handsome, contemporary styling
- Efficient, non-glaring illumination
- Easy to install—Economical to use
- For new construction or remodeling



Easy-to-install Alumigrid units are 4-foot square and weigh only 10 pounds. Supported by a framework of aluminum rails, these units are easily lifted aside for re-lamping or maintenance work on ceiling elements above.



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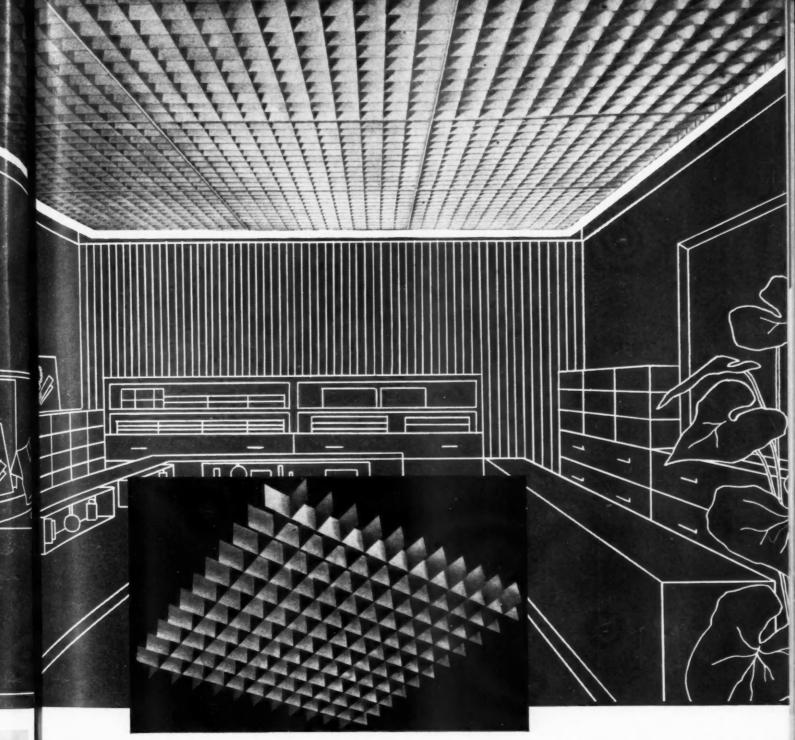
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A perfect ceiling treatment for remodeling work or new construction, Alumigrid is suspended and anchored from the ceiling overhead. It conceals beams, pipes, ducts, sprinklers, and electrical systems.

See our exhibit at the STORE MODERNIZATION SHOW July 6th to July 10th Grand Central Palace, New York City



FOR STORES • SHOPS • RESTAURANTS • HOTELS • CLUBS SCHOOLS • HOSPITALS • OFFICES • AUDITORIUMS

No matter what type of building you are designing, consider the unprecedented advantages offered by Alumigrid.

Its clean-lined, simple styling harmonizes gracefully with modern interior design—while concealing such unsightly overhead elements as beams, pipes, ducts, sprinkling systems. A soft satin finish enhances its appearance and increases its light diffusion factor.

Illumination through Alumigrid is exceptionally uniform and efficient. Its many squares diffuse and reflect light downward to provide pleasant, eye-level illumination throughout the room.

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inklers,

10th

Alumigrid is easy and economical to install because it is suspended below the ceiling without interfering with its structural elements. The lightweight 4-foot square units are

supported by a framework of aluminum rails which are securely anchored to the ceiling.

Each Alumigrid unit weighs only ten pounds and is quickly slid to one side for re-lamping or maintenance work on ducts, sprinklers and wiring.

This outstanding new ceiling is available now—for the job on your drafting board—so write today for specifications and installation instructions. The Kawneer Company, 121 North Front Street, Niles, Mich., or 2541 8th Street Berkeley, California.

Kawneer

TRUSCON DOUBLE - HUNG RESIDENTIAL STEEL WINDOW

• This outstanding window is an original development by Truscon. It is an economically priced unit in the popular double-hung design, and enjoys widespread use in residences, schools, hospitals, office buildings, etc. Recent construction developments in the Series 138 Truscon Double-Hung Steel Window include:

-Motor-spring type spring balances with Enduro stainless steel tapes. Two balances for each sliding sash. Windbreak flange set back to allow room for lintel.

-Stainless steel weather-MEETING RAILS AND SASH stripping attached to sash at head and sill provides an effective seal against air infiltration along all weathering contacts. Interlocking tubular sash rails with stainless steel weatherstripping, lift handles, sweep lock, strike and pull-down handle, rust-proofed and painted

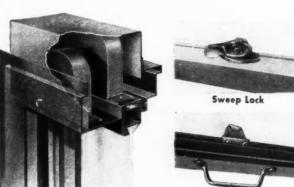
to match window. 18 gauge sash members.

Full length stainless steel weatherstripping attached to frame members at jambs assures weather-tightness and also serves as sash-way for both upper and lower sash for easier operation. Plaster stop provided on interior and rebate for screens and storm sash on exterior. Deep bead. 18 gauge jamb frame members.

-Double step design affords two point weathering contact with sash. Heavy 16 gauge steel for strength and rigidity.

In addition to all these features, sizes of the Series 138 Truscon Steel Window have been changed to agree with principles of modular planning. Another important feature is the tubular construction of the sash members adding greatly to the strength, durability and finished appearance of the window.

Write for new catalog giving complete mechanical details, types and sizes and instruction details.



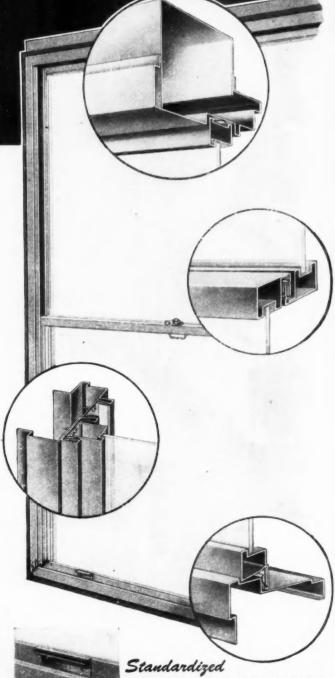
Spring Balances



Pull-Down Handle

TRUSCON STEEL COMPANY

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Frames of the Series 138 Truscon Window are prepared to receive screens and storm sash of the simplest and most economical type, as made by Truscon.

STORM SASH AND SCREEN

Manufacturers of a Complete Line of Residential Double Hung Windows . . . Residential Casements . . . Security and Basement Windows . . . Screens and Storm Sash . . . Metal Lath Products . . . Industrial Steel Doors . . . Coal Chute Doors . . . Steel Lintels . . . Concrete Bars . . . Welded Steel Fabric.



Thanks to the heating contractor who recommended *Convection Heating . . . and Tuttle & Bailey Recessed Convectors!

A combination that meets every requirement home owners demand from heat distribution equipment . . . efficient heat transmission that means real comfort . . . economical operation that saves on fuel costs . . . appearance that harmonizes with modern furnishings.

And a plus value to you, Tuttle & Bailey Standardized Convectors (Recessed or Cabinet Types) are stocked for quick delivery . . . conveniently packaged for easy handling on the job.

ALL-COPPER HEATING ELEMENT MAKES A DIFFERENCE!

Fins, tubes, headers...Tuttle & Bailey heating elements
are constructed entirely of copper. With conductivity
approximately seven times faster than iron, twice as
fast as aluminum, copper means quicker transmission of
heat from boiler to rooms, raising room temperature
levels faster. Elements are light in weight, durable,
sturdy...engineered for minimum resistance to air flow,
maximum contact with fins.

"Inside facts" that mean better heating ... assure lasting customer satisfaction.

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ASK YOUR JOBBER TODAY

Standardized COPPER CONVECTORS

LURA MINISTER BUSINESS BUSINES

NOW IN PRODUCTION

Luria offers a complete line of Standard Buildings specifically planned to be adaptable for all industrial requirements. Several basic types in a wide range of sizes can be used individually or in a variety of combinations.

Luria buildings are permanent structures fabricated from heavy structural steel and designed to comply with the latest building codes. A choice in the use of collateral materials and the location and type of doors and windows increases the utility and allows complete freedom in architectural treatment.

BASIC UNIT WIDTHS 40' TO 100' CLEAR SPAN LENGTH ADJUSTABLE IN INCREMENTS OF 20' CLEARANCE AT EAVES 12' TO 20'









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ELKAY Stainless Steel is the one best answer when continuous surfaces are desired—without seams or crevices,

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STAINLESS STEEL SINKS

Made only by ELKAY—oldest manufacturer of Stainless Steel Sinks—established 1920

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HOMES against destructive dampness with BONDEX cement paint.

Dependable, low-cost **BONDEX** also adds color and protects the surface.

You seal moisture out and satisfaction in when you paint a new home with Bondex Cement Paint. One treatment checks moisture, adds color distinction, preserves.

Bondex is ideally suited as a finish for modern building materials. Its reputation for performance has been established in all types of climates in more than 90 countries. To build lasting goodwill with homeowners rely on Bondex.

Use BONDEX on exterior walls, basement walls and foundations of these types: STUCCO · CONCRETE OR CINDER BLOCK · BRICK · MASONRY · BUILDING TILE · STONE ASBESTOS SIDING

PUT PERSONALITY
INTO YOUR HOMES
WITH THESE 12
BONDEX COLORS...

Dutch White
Oyster Shell
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Brick Red
also
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for color chart write... THE REARDON COMPANY . St. Louis 6,
Chicago 9 . Los Angeles 21 . Montreal 1 . Bayonne, N. J.

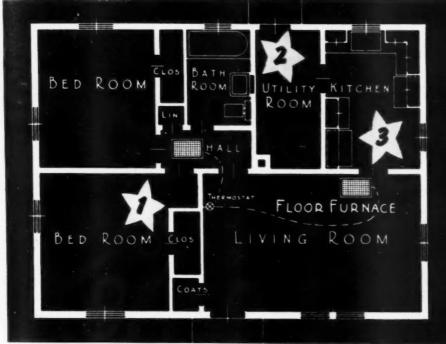


CEMENT PAINT
that outsells all other
cement paints combined

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More vital than ever in today's building market: These

Cost-Cutting, Labor-Saving, Better-Heating Coleman Floor Furnaces



"Star Savings" that help you meet sales resistance

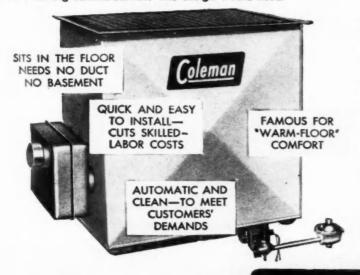
They're really "star" savings—for they help you cut building cost without cutting quality or heating comfort—and often actually help improve design!

Saves excavation and basement cost: No basement needed.
You can give "more house" for the money.

furnace, and you save utilityroom space, too. This often permits better floor planning.

Saves duct expense: No expensive duct work on a Cole-

This typical Coleman floor-plan shows how a "multiple installation" of floor furnaces furnishes perfect heating, yet costs less than the big central furnace this design would need.



Coleman national ads make these Floor Furnaces powerful selling features, for you

Yes — they not only save money for you and your buyers; Coleman Floor Furnaces also help you close sales. You get easier, quicker sales because millions of magazine readers have read in Coleman's national advertising how Coleman Floor Furnaces save and cut fuel bills. They know these new automatic furnaces mean better heating, and "warm-floor" comfort.

Write, today, and learn how small-home builders everywhere are using Coleman Floor Furnaces to cut building costs and provide better heated homes. Models are available for gas, oil and LP Gas—sizes from 25,000 BTU to 70,000 BTU; flat-register models or dual-wall-head types.

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America's Largest Selling
LOOR FURNACE

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THERE'S one way to be sure of the best — stock Roddiscraft flush doors and hardwood plywood.

Roddiscraft doors and plywood have the two essential elements of quality — the finest materials, plus skilled craftsmanship.

Veneers from our own northern hardwood timber tracts—seasoned hardwood crossbandings, selected kilndried core blocks—skillfully molded by Roddis men

with a fifty year heritage of craftsmanship and knowledge of wood.

You can see the signs of craftsmanship in the beautifully matched faces, in the silken surfacing — in the clean edges — in the square, true cut.

Yes — compare Roddiscraft point by point, see for yourself why Roddiscraft is the one way to assured quality.

Roddiscraft Roddis Lumber & Veneer Co.
MARSHFIELD, WISCONSIN

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Norge Electric Ranges fulfill your specifications



Modern apartment buildings are designed for utmost utility...for greater comfort and convenience...for new beauty. So, too, are Norge appliances! Norge products provide maximum comfort and satisfying economy. For Norge engineers are fulfilling the pattern for modern living with appliances styled to complement good room design, and constructed for functional efficiency. Norge Division, Borg-Warner Corp., Detroit 26, Mich. In Canada: Addison Industries, Ltd., Toronto, Ontario.

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Refrigerators . Electric Ranges . Water Coolers Washers . Electric Water Heaters . Home Heaters Gas Ranges . Home Freezers



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NEW ADVANCE-DESIGN CHEVROLET TRUCKS

For More Value - In More Ways - On Your Job

Business leaders everywhere recognize the new high value of these latest and greatest Advance-Design trucks! You'll agree, too—once you see and once you try these trucks that represent the supreme achievement of advanced engineering. And they're the lowest-priced trucks in the volume field! Model for model, and with comparable equipment and specifications, they list for less than competitive makes—some models as much as \$150. See them at your dealer's now.

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

CHOOSE CHEVROLET TRUCKS FOR TRANSPORTATION UNLIMITED

Only Chevrolet Advance-Design Trucks for 1948
Have All These New and Finer Features

NEW CHEVROLET 4-SPEED SYNCHRO-MESH TRUCK TRANSMISSION

A special feature in heavy-duty models that assures new operating ease and efficiency.

> NEW ADVANCE-DESIGN GEARSHIFT CONTROL

A steering column gearshift in models with 3-speed transmissions provides greater driving ease and convenience.

NEW FOOT-OPERATED PARKING BRAKE

A feature that offers new clear floor area, safety and efficiency In models with 3-speed transmissions.



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The world's most economical engine for its size now has greater durability and operating efficiency.

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PLUS The Cab that "Breathes" • Uniweld, all-steel cab construction • New, heavier springs • Full-floating hypoid rear axles on %-ton and Heavy Duty models • Specially designed brakes and Hydrovac Power brakes on Heavy Duty models • Ball-bearing steering • Double-line pre-selective power shift in 2-speed axle at extra cost • Wide base wheels • Standard cab-to-axle-length dimensions • Multiple color options.

*Fresh air heating and ventilating system optional at extra cost.

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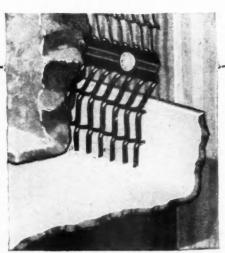
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none of this with a Briggs bathtub—it's leakproof!

No dripping ceilings under Briggs Beautyware bathrooms! These revolutionary die-formed steel fixtures take care of this problem—and untie every other knot in the business! Briggs bathtubs are lighter—(only 110 pounds), and stronger. Briggs tubs are safer—thanks to the patented Safety-Bottom, the helpful hand grip. Briggs tubs give you uniform quality: every tub is furnished in stainproof (acid-resistant) porcelain enamel. Briggs fixtures fit exactly—because of their close tolerance engineering. Yet with all these extras, Briggs fixtures are modestly priced! Write now for new catalog featuring Briggs plumbing fixtures and Briggs brass. Briggs Manufacturing Company, 3025F Miller Avenue, Detroit 11, Michigan.



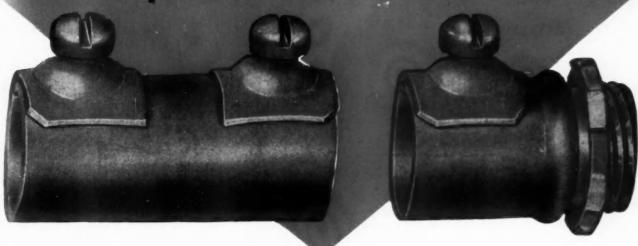


Briggs solves the danger of leaks at tub-wall line—with an integral lip flange. This provides a perfect flashing—a permanent water seal —tub to walls.

Mow titunas T Thin-Wall Conduit

(Electrical Metallic Tubing)

EASY TO INSTALL in close quarters and in corner locations



PERMANENT GROUND

VIBRATION PROOF

CLOSE, ACCURATE FIT

EASY TO INSPECT

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NO WRENCH STRAINS ON BOXES

INSTALLED WITH SCREWDRIVER

UNIFORM, SAFE HOLDING ACTION

SIMPLE, STRONG, PRESSED-STEEL CONSTRUCTION

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APPROVED BY UNDERWRITERS'

LABORATORIES, INC.

A Through Leading Electrical Wholesalers



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Pittsburgh 30, Pa.



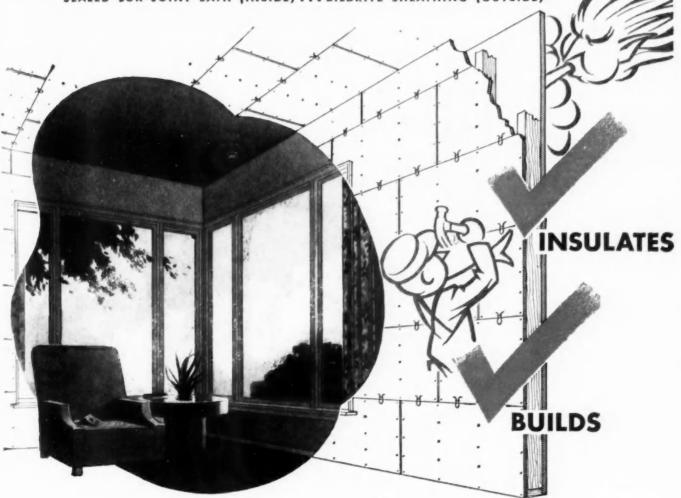
TODAY, in their bathrooms, new home owners want the luxury of modern design in shower cabinets combined with utility and real durability. Now Tiletone, and only Tiletone, offers a shower cabinet that really graces any bathroom no matter how luxurious. It is Model 75. Here is a shower cabinet that is con-

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TILETONE COMPANY . 2323 WAYNE AVENUE . CHICAGO 14; ILLINOIS

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You help yourself as well as your customer when you build this wall—inside and outside—with Double-duty Insulite. It nails up faster, fits easily, saves time all along the way. Builds a better home because it insulates as it builds. Remember, too, that Bildrite on the outside and Sealed Lok-Joint on the inside, guards against inner wall condensation.

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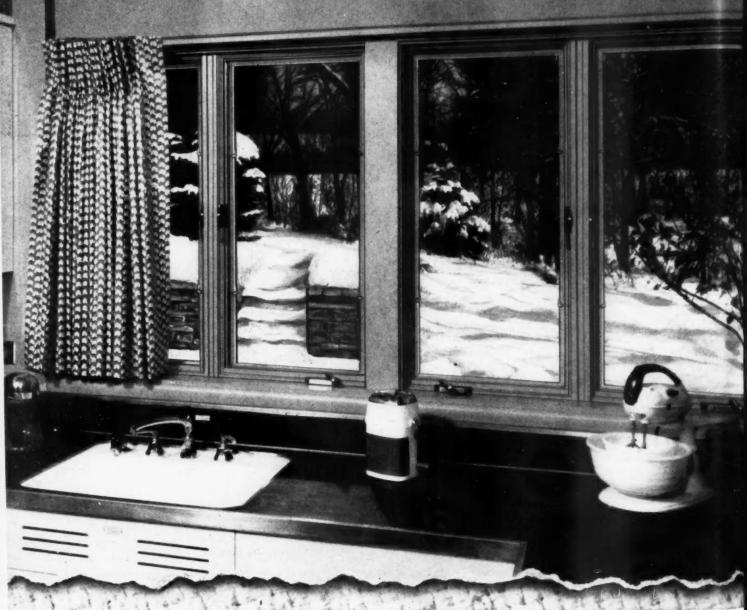




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"Insuline" is a registere

Citchen Planning



LIONS CLUB MODEL HOME, MINNEAPOLIS... ARCHITECT: ROBERT CERNY

To satisfy the woman of the home (and she is mighty important), ANDERSEN WINDOWALLS are called upon to brighten the kitchen, open its workroom space to a view of the outdoors, ventilate it effectively the natural way in summer, and keep it snugly weathertight in winter.

In this home two Andersen Casement Window Units,

Number 4326, with one-light glazing, have been arranged into a wall of windows.

ANDERSEN WINDOWALLS are sold only through regular lumber and millwork dealer channels. See your millwork distributor or write us for further information.

* TRADEMARK OF ANDERSEN CORPORATION

Andersen Corporation



A feature with proved sales appeal to home buyers

The home equipped with B & G Hydro-Flo Heating is truly a haven of luxurious winter comfort! Whether the heat distributing units are radiators, radiant baseboards, convectors or radiant panels, this forced hot water system provides the finest in automatic, controlled heating.

B & G Hydro-Flo Heating owes its country-wide spread in popularity to its genuine merit—proved over again in thousands of homes! It is the system which affords the instant, positive control of heating so essential to real comfort... delivering just the right amount of heat for any weather condition. No overheating in mild weather and no lack of heat when the thermometer hits bottom. At all times, indoor temperature is maintained steadily at whatever degree is preferred. Naturally this precise measuring out of heat means utmost fuel economy.

B & G Hydro-Flo Heating equipment can be installed on any hot water heating boiler. Its extreme simplicity is a warranty of dependable operation.

Year 'round hot water a bonus feature

Where a B & G Hydro-Flo Heating System is installed, no separate water heater is required. The same boiler that heats the house also heats the domestic water—not only in winter but all around the calendar! What feature could have more appeal to the woman of the house than a bountiful supply of piping hot water . . . always ready for kitchen, laundry and bath . . . day and night.







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BELL & GOSSETT

Dept. A0-11, Morton Grove, III.

*REG. U. S. PAT. OFF.



Send for this new 4-color booklet—it tells the complete story of B & G Hydro-Flo Heating Systems.



Not long ago we visited some model homes. We talked to people inspecting them. We found out what prospective home buyers want to know.

They want to know a lot...much more than any busy builder has time to tell them personally.

What kind of pipes? What type of insulation? What kind of cooking range? What make of furnace? What brand of water heater?

You put into the houses you build, the best materials, the best brands of appliances you can find. How can you *tell* each prospect what your house offers?

We have a way.

We have constructed a large, beautiful portfolio in full color, called the "Home Buyer's Guide." It is dignified, impressive, wholly in keeping with the importance of the subject.

The inside pages of this handsome piece are divided into pockets into which we will insert attractive literature which describes in detail the Rheem equipment installed in your houses. From your other suppliers you can obtain and insert literature on building material, insulation, paint, plumbing fixtures and kitchen appliances.

You can include financing plans—your own, the local bank terms or F.H.A. plan. You can include *all* the facts about your new homes!

No Rheem advertising appears on this portfolio. But your name and address will be handsomely imprinted (at no cost if you are a Rheem customer). The portfolios are shipped to you in the quantity you need. You simply insert the literature, put a supply of the "Home Buyer's Guide" on display in each of your model homes and sales offices and invite every prospect to take one free.

Thus, the whole story of your new homes is presented in a single package — a striking portfolio that your prospect takes along with him. It's a new way to merchandise your new homes. It's an entirely new kind of service to builders from Rheem, world's largest maker of water heaters and one of the foremost manufacturers of Home Comfort Appliances.

Fill in your name and address on the coupon below and mail it today. Our representative will call to show you a sample of the "Home' Buyer's Guide" and take your order. NO obligation, of course. Do it now.

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Automatic Water Heaters • Central and Space Heating Equipment • Soft Water Appliances • Boiler and Tank Units

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9 plants in U.S.A.—also Brisbane, Melbourne, Sydney, Rio de Janeiro, Singapore, and Hamilton, Canada. Rheem

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"As an architect, I am in constant touch with technical improvements in the building field. As a business man . . . I know that I must also keep in close touch with the building trends that interest my best clients. That's why I'm interested in House & Garden.

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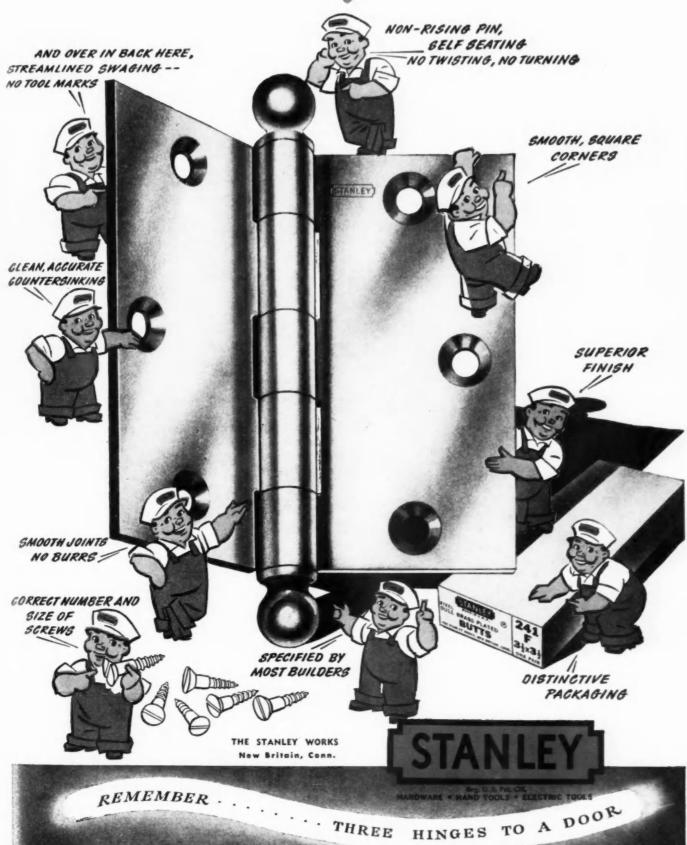
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ONLY \$25* per 1000 square feet for

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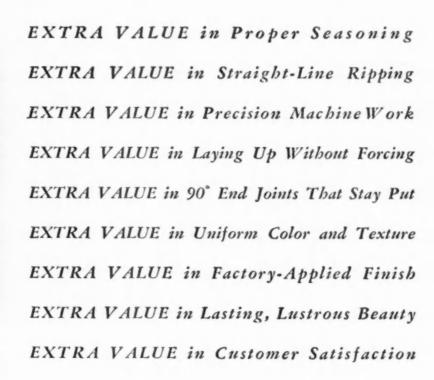
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BRADLEY PRE-FINISHED STRAIGHT-LINE HARDWOOD FLOORING

IN OAK, BEECH & PECAN





These extra values are the tangible results of continuous years of our determined effort to make a better flooring. They symbolize Bradley's purpose to give each user a *premium* with his investment in fine flooring. They are the reasons why Bradley dealers increase their flooring turn over.

There's a Bradley representative within reach of your telephone.

BRADLEY LUMBER COMPANY of Arkansas

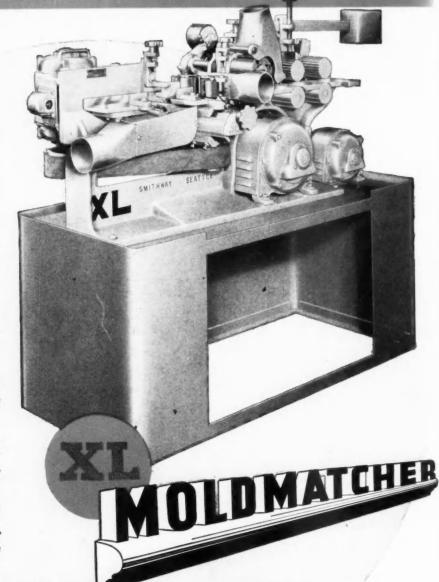


Sensational New Moulder Breaking Sales Records!

Here's Why!

- About 1/5 the usual price of a moulder.
- 2 PRODUCES SO MUCH! 2,400' to 12,000' of moulding per hour.
- B UP TO 2"x4" STOCK! Makes 42 of 46 standard moulding designs.
- QUICKER CHANGES! Easier, simpler to set up for every job.
- ONE-MAN OPERATION!

 Produces more output per day
 per man.
- 6 PRECISION BUILT!
 Simplified design, for long,
 heavy-duty service.
- One job alone often pays for the moulder. Also uses waste stock!



Get the proof! Don't take our word for it! Write today for literature! Ask for complete convincing demonstration at your own shop—let us SHOW you how you can make money with an XL MOLDMATCHER. Write TODAY!

SMITHWAY MACHINE COMPANY

Manufacturers

4617 Airport Way

Seattle 8, Wash.

XL PRODUCTS COMPANY

National Distributors

4617 Airport Way

Seattle 8, Wash.

A NEW Self-Feed RIP SAW at Today's LOWEST PRICE!

IT'S THE GREAT NEW



Gives You the Features You Want At the Price You Want to Pay!

Announcing the XL RIPPER—a new, compactly designed self-feed rip saw taking up to 4" stock, with 15" ripping capacity... ready soon at a record-breaking low price. It's precision built for you by the makers of the tremendously successful XL Moldmatcher! Watch for the new XL Ripper. Before you buy any rip saw, SEE a demonstration of this great new woodworking tool. Write today for full information!

Manufactured by

SMITHWAY MACHINE COMPANY

4617 Airport Way

Seattle 8, Wash.

and Gardens MORE THAN 3,000,000 FAMILIES JONE 1948 . 25¢

Here's What Better Homes & Gardens' 100% Service Means To You

BH&G has no fiction, no side lines. Cover to cover, ads and all, it's devoted 100% to service for better living. This means that the people who read BH&G don't do it casually. They're after something: ideas, information, trends. They get it. They come to you pre-informed about the ideas that you're trying to put across. They come as informed clients — saving you much time and many headaches. Here's what we're telling them in June: 12 Big Ideas (how they work in small houses); How to Read a Set of Plans; Here's What I'll do about Building (interviews with Presidential prospects).

These brands are advertised in the JUNE issue of Better Homes & Gardens:

APPLIANCES

Amana Home Freezer

Amana Home Treath Apex Washer Coolerator Refrigerator Crosley Refrigerator Filter Queen Vacuum Florence Ranges Frigidaire Refrigerator G. E. Home Freezer G. E. Electric Range G. E. Home Freezer
G. E. Electric Range
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Gibson Refrigerator Gibson kerriger
Hoover Iron
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International Harvester Home
Freezer

Freezer
KitchenAid Mixer
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Knapp-Monarch Liquidizer
Knapp-Monarch Iron
Maytag Washer
Norge Home Freezer
Perfection Oil Range
Parke Home Freezer Philco Home Freezer Philco Refrigerator Proctor Iron Servel Refrigerator Servel Retrigerator
Simplex Ironer
Sunbeam Ironmaster Iron
Swartzbaugh Rongette
Toastmaster Toaster
Universal Gas Range
Victor Quickfreeze Home
Freezer

Voss Washer Welbilt Gas Range Westinghouse Waste-Away

Bell Electric Outlets
Bell Telephone System
Burgess Batteries
Onan Power Plants

HARDWARE
Dic. A. Doo Paint Brush Bath
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Duco Cement
Gabco Automatic Window
Screens
Invizible Sash Balance
Lowell Paint Spray
Lumite Screen
Plastic Wood
Smooth-On Cements
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HEATING, MAJOR

American Radiator Bryant Dunham Hydro-Flo Iron Firem Janitrol Petro Stokol Superfex Williams Oil-O-Matic

HEATING, MISCELLANEOUS

Auropel Fans
Dust-Stop Filters
Fan-Pac Attic Fans
Hancock Outdoor Fireplace
Heatilator Fireplace
ILG Ventilation
Price Outdoor Fireplace
Superior Fireplace
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ELECTRICAL & WIRING MILLWORK & LUMBER

American Central Kitchens Crawford Doors Curtis Fenestra Steel Casements Mengel Flush Doors Modernfold Doors National Oak Floors ROW Windows Red Cedar Shingle Bureau Western Pines Youngstown Kitchens by oungstown Kitchens by Mullins

PAINT & RELATED PRODUCTS

Cuprinol Delaware Wall-Ever Dutch Boy Blend Eagle RTU White Lead Flatiux Glidden Kyanize urg-Tex NuEnomel ParaStoneTes Paratex Pittsburgh Setfast

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American-Standard Briggs Crane Culligan Soft Water Evans Hot Water Hot-Roc Hot Water Tanks

Lustertone Sink Tops
Orangeburg Fibre Conduit
Permutit Soft Water
Rheem Hot Water
Ruud Hot Water
Servisoft Soft Water
Servisoft Soft Water
Tooslmaster Hot Water
John Wood Hot Water

INSULATION

Carey Celotex Chamberlain Flintkote Insul-Cotton Reynolds

ROOFING & SIDING

Barrett Celotex Flintkote Kaiser Reynolds Temlock

MISCELLANEOUS

Dow Magnesium Easi-Bild Patterns Faries Medicine Cabinets Pasi-bill Victoria Cabinets
LOF Glass
Majestic Home Incinerators
Orlyt Greenhouse
Portland Cement
Pyrene Fire Extinguisher
Rock of Ages Monuments
Robertshaw-Fulton Heat
Controls

MISCELLANEOUS (Cont'd)

Rusco Venetian Awnings
Setwell Pants Hangers
Spirella Corset
Swaggerettes Gloves
Tex-Knit Ironing Board Cover
Warp's Venetian Blinds
Westclox Time
West Dodd Lightning
Conductors Conductors Zenith Hearing Aids

OUTDOOR

Champion Sprayer Clean-Cut Lawn Mower Clemson Lawn Mower Dayton Irrigation Dobbins Sprayer Dobbins aproportion of the control o Jari Tractor March Irrigation MontaMower Lawn Mow National Mower Parker Lawn Sweeper Parker Lawn Sweeper
Pennsylvania Lawn Mower
Porter-Cable Hedgetrimme
Reo Lawn Mower
Specifical Lawn Mower Sensation Lawn Mower Sensation Lawn Mower
Spartan Sprayer
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CIRCULATION OVER 3,000,000

America's First Service Magazine

TOCK CABINET HARDWARE









The very finest in styling and quality. Neo Die Cast with beautiful Polished Chromium finish. (Above: ED418 Door Pull, Actual size). Streamlined beauty at moderate cost. Neo Die Cast, Polished Chromium finish, black embossed lines (Above: ED405 Door Pull, Actual size).

For colorful kitchens. Polished Chromium over Brass, with plastic bases and color-embossed lines. (Above: EO8215 Door Pull, Actual size).

Quality Cabinet Hardware at low cost. Beautiful new designs in Genuine Chromium Plated finish. (Above: E314 Door Pull, Actual size).



Patent No. D140,765



No. E3050 Flush Doors No. E3052 1/6" Offset Patent No. D126,556



No. ED9400 Catch Pat. No. D126,551



No. E3067 Flush Deors No. E3069 % Offset



No. 89414 Cotch Par. No. D140.766



Precision winged latch bolt mechanism Patent No. 2,233,278



*Precision winged latch bolt mechanism Patent No. 2,233,278



*Precision winged latch bolt mechanism Patent No. 2,233,278



*Precision winged latch bolt mechanism Patent No. 2,233,278

All patterns now available through Amerock dealers and jobbers.



AMERICAN CABINET HARDWARE CORP. ROCKFORD, ILLINOIS

AMERICAN CABINET HARDWARE CORP., ROCKFORD, ILL., DEPT. 7-JN Please send latest catalog on "Amerock" Cabinet Hardware to: City......State.....

My favorite Supplier is.....

NOW! FOR THE FIRST TIME

A Package BOILER for 100% NON-FERROUS, Small Home HEATING SYSTEMS....

STURDY, RUST-FREE LIFETIME CONSTRUCTION

All parts in contact with water are copper, brass or bronze. The Heat Exchanger is lead-alloy coated for additional protection against the products of combustion. The perfect companion equipment for an all non-ferrous RUST-FREE heating system.

A REAL PERFORMER

Design eliminates excessive bulk in the heat transfer area. The low water content (8 pints) and Copper Finned Heat Exchanger and counter-flow principle provides instant response to heat demand—pickup load and standby loss are minimized. In a matter of seconds an abundance of hot water is silently speeded to all parts of the heating system... even distant points in sprawling, ranch type construction installations.

EXTREME EFFICIENCY

Costs less to operate. The patented Burkay Modulator Burner employs two stages of primary air entrainment plus an auxiliary secondary air supply which produces exceptional high combustion efficiency. NOISELESS Burner Operation. Flame ports are fully protected from clogging.

POSITIVE PROTECTION AND SAFETY

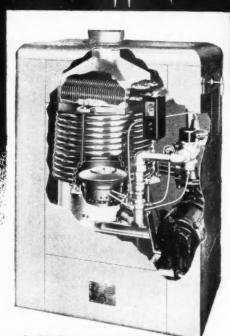
Carries the A.G.A. seal of approval. All controls, including the special pilot bracket assembly, are easily accessible.

BEAUTIFULLY STYLED . ATTRACTIVELY FINISHED

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FORCED CIRCULATION GAS FIRED BOILER



MODEL HWA-110 HOT WATER BOILER

Burkay's proven principle of design is backed by years of experience in serving the commercial and industrial fields with large volume water heating equipment. Long, trouble-free, dependable service is assured. Comes completely packaged, with all controls, ready to install. Installation is easy and costs less because of the minimum weight and compact size.

Small square model HWA-110...110,000 B.T.U. maximum input Large round model 620...195,000 B.T.U. maximum input Both models available for Liquefied Petroleum gas

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WRITE BURKAY HEATING PRODUCTS DIVISION TODAY FOR LITERATURE AND PRICES.

948.



Residential Construction Costs Continue Upward

THE YEAR 1948 is off to a record-breaking volume of residential construction. Each month through March has shown a substantial increase in the number of starts reported by the Bureau of Labor Statistics. The March total of 67,000 new dwelling units brought the quarter to 164,000 starts as compared to 142,600 last year, an increase of 14 per cent.

As to other categories, commercial building is showing a small increase over last year; industrial building is declining; architectural building is up, and other types of building show a small increase over

last year.

High costs have shown little or no inclination to decrease. The best available data on costs on comparable types of buildings over a long period of time is that compiled by Roy Wenzlick & Co. of St. Louis. Although St. Louis is now one of the highest building cost areas in the United States, the data is indicative of trends In 1913 the cost of a elsewhere. thirty-family reinforced concrete building in St. Louis was \$84,600. By 1925 the cost was \$160,700 or almost double. In 1932 the cost reached a low point of \$107,600. By 1941 the cost almost reached the 1925 level with \$160,400. By late 1946 the cost had risen to \$244,000, reached \$274,000 in 1947 and advanced to \$276,800, an all-time high, in February of this year. The cost is now \$116,000 in excess of the 1925 level when large numbers of apartment buildings were built.

As long as rent controls are operative, these high costs rule out the possibility of a large volume of apartment building. Last year only 9 per cent of new dwellings were provided in multi-family dwellings.

Cost of α house of six rooms of frame construction in St. Louis in 1913 without land was \$3,836. In 1920 the cost of the same house was doubled, selling at \$7,678. The buyer's strike of 1921 brought the cost down a thousand dollars to \$6,605, but by 1925 the price was up again to \$7,284. Then, with the building boom over, construction costs dropped year by year to \$6,208 in 1929 and to a new low of

\$4,480 in 1932. By 1935 costs had increased another thousand dollars to \$5,468. By 1940 another thousand dollars was added, making the cost \$6,551. In 1941 the cost jumped another thousand dollars to \$7,586 and remained at that level during 1942, 1943 and 1944—the catch being that you couldn't build one then.

With the end of the war, the cost jumped \$1,500 to \$9,404 in October 1945. By the end of 1946 it was up another thousand dollars to \$10,532. In October 1947 the cost had jumped \$2,500 to \$13,074. It was believed by many that costs had reached a peak in 1947, but this theory was disproved by the fact that costs jumped another \$800 to \$13,894 in April 1948.

The cost of constructing similar houses in other cities ranges from a low of \$10,578 (without central heating) in Miami, Fla., to \$14,-497 in Pittsburgh, Pa.

Other cost of living items have increased almost as much as this standard house which represents an increase of 132 per cent over 1939. Food prices are 124 per cent, and clothing prices 85 per cent over 1939. Average weekly manufacturing wages are up 114 per cent over 1930

Most hopeful means of cutting building costs would be a drop in the price of lumber and millwork, which totaled \$3,870 in April 1948 for the standard house, according to the detailed cost break down in the accompanying table as compared with \$1,533 in 1939. A reduction of labor costs which totaled \$4,394 in 1948 would help. The labor cost alone is only \$1,500 less than the cost of the entire house in 1939. With increased building labor rates going into effect in June in many cities, there is little prospect for improvement.

Continued high volume of residential building for political reasons, if nothing else, is the objective of the administration which wants to see 1,000,000 new homes started this year and will channel materials to make it possible. On the other hand, mortgage lenders, institutions and individuals are becoming much less willing to risk their funds on home building when the present high prices of real estate, building materials, labor costs and consequent risk conditions are taken into account.

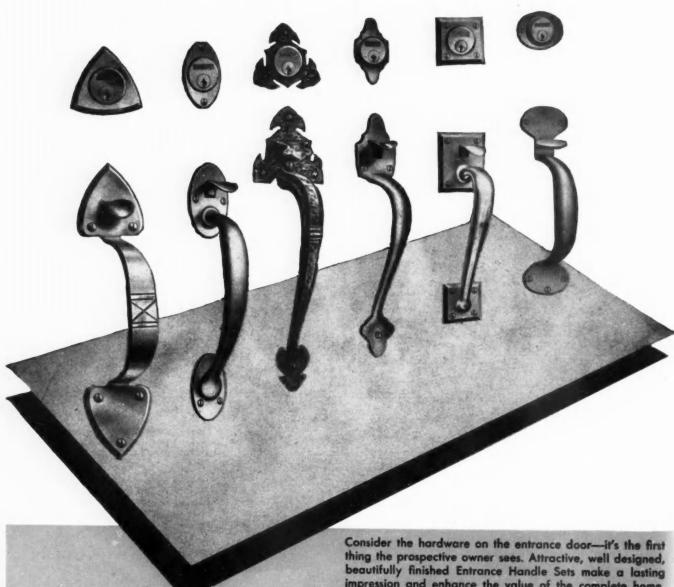
A 25 year government bond yields 2½ per cent, AAA corporate bonds yield nearly 3 per cent, some high grade stocks slightly under 4 per cent and some high grade common stocks as much as 6 per cent. In contrast, insured home mortgages with maturities of 20 to 25 years and a gross rate of 4 per cent provide a net yield of a little over 3 per cent.

BUILDING COSTS OF A STANDARD SIX-ROOM FRAME HOUSE BUILT IN ST. LOUIS

| | 1941 | 1945 | 1946 | 1947 | 1948 | |
|---|---------|---------|----------|----------|----------|----------|
| Cost of Materials 1939 | Oct. | Oct. | Oct. | Oct. | Jan. | April |
| (1) Masonry \$ 513 | \$ 514 | \$ 603 | \$ 644 | \$ 709 | \$ 729 | \$ 735 |
| (2) Tile Work 103 | 159 | 175 | 175 | 214 | 258 | 258 |
| (3) Unfinished Lumber 360 | 544 | 695 | 723 | 986 | 1,045 | 1,045 |
| (4) Finished Lumber 660 | 861 | 1,117 | 1,134 | 1,668 | 1,706 | 1,713 |
| (5) Millwork 513 | 689 | 702 | 837 | 1,087 | 1,107 | 1,112 |
| (6) Heating 239 | 262 | 273 | 330 | 409 | 456 | 504 |
| (7) Plumbing 277 | 289 | 320 | 383 | 432 | 457 | 501 |
| (8) Sheet Metal 49 | 106 | 56 | 59 | 114 | 145 | 117 |
| (9) Electric Work 27 | 34 | 50 | 70 | 76 | 73 | 76 |
| (10) Nails & Hardware 64 | 80 | 79 | 81 | 134 | 139 | 139 |
| (11) Painting | 35 | 38 | 43 | 173 | 173 | 197 |
| (12) Misc. Metal & Wood 192 Lath Cover Bead Insulation | 227 | 246 | 253 | 315 | 340 | 357 |
| Total Material Cost 3,026 | 3,800 | 4,354 | 4,732 | 6,317 | 6,628 | 6,754 |
| Labor Cost (on site) 1,696 Overhead-Profit of | 2,279 | 3,177 | 3,685 | 4,178 | 4,394 | 4,394 |
| Subcontractors | 433 | 515 | 586 | 701 | 745 | 757 |
| General Contractors' Profit 505 | 650 | 805 | 900 | 1,120 | 1,177 | 1,191 |
| Sales Taxes, Insurance, | | | | 1.00 | -4.77 | ., |
| Bond 323 | 424 | 553 | 629 | 758 | 796 | 798 |
| Total Cost | \$7,586 | \$9,404 | \$10,982 | \$13,074 | \$13,740 | \$13,894 |

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Entrance Door Handles



Consider the hardware on the entrance door—it's the first thing the prospective owner sees. Attractive, well designed, beautifully finished Entrance Handle Sets make a lasting impression and enhance the value of the complete home. On the other hand, poorly designed, cheaply constructed entrance hardware builds up an impression of slipshod construction throughout the house. Don't take chances! Specify Sargent quality products! If it's Entrance Handle Sets you want, illustrated are the most popular models. Note the dignified beauty of the designs. They are made from lasting materials and guaranteed to function with precision. Furnished in a choice of attractive finishes. For profit and prestige, always specify Sargent quality products.

SARGENT & COMPANY

NEW HAVEN, CONN.

NEW YORK

CHICAGO

8.



PUBLIC RELATIONS—N A H B, asking for co-operation from all segments of the home building industry, has set the week of Sept. 5 as National Home Week. Purpose is to demonstrate homes of all kinds in every community in the land.

PLANS—Detailed suggestions for procedure, publicity and follow-up for National Home Week for communities of all sizes were to be drafted at spring meeting of NAHB directors and executive committee. Full report will appear in July issue of *American Builder*.

JUVENILE DELINQUENCY-

Characteristically, the public housers seize this important contemporary issue as another avenue of attack on the building industry. Apparently, none of them wants to admit that juvenile and adult delinquency are the greatest causes of substandard housing, while substandard housing has very little to do with delinquency of any kind.

DELINQUENTS — They dress, eat, work, play with characteristic lack of responsibility. That attitude reflects itself in what they do to their houses and the furniture in them. The cure for delinquency is not a change of environment, it is a change of attitude.

PHILADELPHIA — Judge N. S. Winnet, Chairman of the Crime Prevention Association, recently said, "the primary cause of delinquency and crime among youth is substandard housing . . . I know of no better crime prevention program for this year than to urge immediate public, low-cost housing." As we see it, the judge recommends the best possible way to increase the conditions he decries. What Philadelphia and every other city with mounting juvenile delinquency rates needs, is a liberal dose of parent education in the virtues of honesty and hard work.

STATISTICS — The judge used figures that show higher rates of juvenile delinquency where the housing standards are lowest. He might have used diet, clothing, church and school attendance and other standards, and get the same result. None of them, including the housing standards, would prove that juvenile delinquency is the result and not the cause of any

or all of the others. It's time for a real objective study of cause and effect.

SENATOR CAIN—He introduced an amendment to S. 866 calling for deletion of public housing section from the bill. It was the one that lost, 49 to 35. Had it passed, it might have opened the way for Senate consideration of the Wolcott bill, H.R. 5854.

NEW HOUSING—"Who Can Afford New Housing?" is the title of a pamphlet recently issued by The Construction Information Committee, 815 Fifteenth St., Washington 6, D.C. Contains facts that thoroughly debunk the sweeping generalities made publicly by public housers.

NATHAN MANILOW—The vigorous and logical president of Chicago Metropolitan Home Builders Association recently took part in two radio debates with a Chicago public housing official opposing him, and an alderman in the middle. All honors went to Manilow whose facts and logic made the public housing argument sound very feeble.

NATIONAL FARMERS UNION-

According to the Denver Post, the union has 150,000 member families. It is cooperative, thus tax free. Now seeks alliance with labor unions to establish insurance, manufacturing and retail chains. With taxes reduced and government costs rising, just how much of American business does Congress think can be converted to a tax-free basis?

BERL E. GODFREY—He asks in the Dallas Morning News, "When federal government takes money from taxpayers' pockets and lends it to cooperatives at one per cent interest, while private business has to pay a much higher rate, is that fair? Is it fair to exempt the co-ops from antitrust laws and SEC regulations that apply to private business? Is it equitable to leave the co-ops virtually free from taxation, putting the whole burden on the backs of private businesses with which they compete?"

RUINATION —It is not only unfair, it threatens to ruin the entire economy. It is about time for Congress to wake up to what is happening.

ntegra **L**ock

Speaking of Entrance Door Lock Sets, as we do on the facing page, don't overlook the Integralock*.



Made with a round rosette to harmonize with small home architecture, the Sargent Integralock* (AR Design) is a precision made lock of the highest quality. It is also made with a square escutcheon plate (MR Design) which, while used extensively on office and large residential buildings, is also admirably styled for home use. The working parts, made from forgings, extrusions and stampings, are fully interchangeable allowing for a factory assembled lock case—a sealed tock case. Small and compact, it's extremely easy to install without weakening the door structure, yet once installed, it cannot fail to function with snap and precision. Moderately priced, it has beauty, safety and ease of operation-all combining for continuing customer satisfaction.



don't let competition pull the wool over your eyes!



Why let competitors get the jump on you—when it's so easy to give home buyers what they want? Today the trend is to Electric Ranges. Another million American families switched to Electric Cooking last year. Conservative estimates indicate that this year at least a million more Electric Ranges will be installed.

This is a definite trend that cannot be ignored. Progressive builders recognize this trend. Electricity is a "must" in any house, and it's simple and economical to include wiring for an Electric Range leading to a range outlet in the kitchen at the time of construction. This is assurance that the houses you build are not only modern today, but will stay modern for years to come!

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

A-B STOVES
ADMIRAL • CROSLEY
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WESTINGHOUSE



Follow the trend... YOUR HOUSES
FOR ELECTRIC RANGES

LETTERS

Yes, it was an error!

To the Editor: It is not uncommon in this industry to encounter trouble-some and frequently ludicrous errors in house plans but I found my efforts to reconcile the floor plan with the house on page 103 of the May issue like trying to dig a basement in a pool of quicksand. I also encountered the same situation when I turned to page 111. The two plans are obviously transposed—the one on page 103 is for the house on page 111 and vice versa.

No doubt you have already discovered your error. I also feel that many of your readers have spent hundreds of collective hours of study and eyebrow raising in an effort to discover what goes where in each of the two plans. American Builder's reputation for accuracy would naturally lead them to wonder. If they all read each issue as carefully as I, they have undoubtedly solved the problem, but I suggest that you call the attention of your subscribers to the errors so they will not spend any more time wondering about these inconsistencies.—J. C. LIPQRE, St. Louis, Mo.

Louis, Mo.
Ed. Note: You and many others of our readers are correct. The plan on page 103 is for the house on page 111 and the plan on page 111 is for the house on page 103. The plans were transposed between the time the page layouts left this office and the printed magazines appeared. Although editors do make mistakes, and good ones, they cannot be charged on this one.

No second mortgage

To the Editor: The Federal Housing Administration has called our attention to a statement which appears in an article on our operations in your March issue. The statement is as follows:

"The company took back a second mortgage for the difference between \$6,700 and \$7,825, minus the down payment, when necessary."

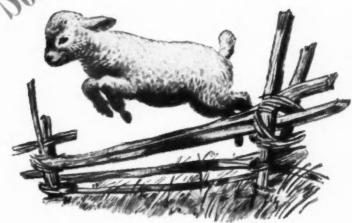
In the instances where our Corporation finds it necessary to sell on a delayed equity basis, we sell under an Agreement for Sale, holding title to the property involved in the name of our Corporation until such time as the delayed equity has been satisfied, as stated in the above-mentioned article.

The article as written by Mr. W. C. Rodd was forwarded to us for proof-reading, and in reading it, we did not notice this error until it was drawn to our attention.

We regret this occurrence and trust that the above explanation will clarify at y misunderstanding.—DON WIL-SON, vice president, Milton Kauffnan, Inc.

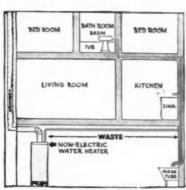
(Continued to page 56)

Something to Count on!



You needn't lie awake nights counting sheep. You can count on the fact that home buyers prefer automatic Electric Water Heaters. To have them completely satisfied with the homes you build—both now and in years to come—install the kind of water heating equipment your customers want.

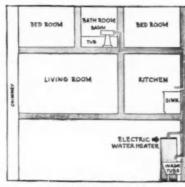
How to reduce construction costs and add customer features...



NON-ELECTRIC INSTALLATION

Construction costs can be reduced with Electric Water Heaters because there's no flue or vent, so installation can be made anywhere—in a closet, in the kitchen, in the bathroom, in the utility room. Hot water lines can be short, cutting piping cost.

Customers like Electric Water Heaters



ELECTRIC INSTALLATION

because they are: (1) AUTOMATIC (continuous hot water, no attention); (2) CLEAN (smokeless, sootless); (3) DEPENDABLE AND TROUBLE-FREE (as electric light); (4) ECONOMICAL (fully insulated storage, short hot water lines); (5) SAFE (all-electric dependable temperature control); (6) FLEXIBLE (can be installed anywhere, even in living quarters; no flue or vent).

Electric Water Beater Section NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
155 East 44th Street, New York 17, N. Y.

B&F - BRYANT & CLARK - FOWLER - FRIGIDAIRE - GENERAL ELECTRIC & MOTPOINT - MOTSTREAM - JUD WHITEHEAD - KELVINATOR - MERTLAND - MONARCH - NORGE - FEMCO - REX - RHEEM - BEIDELHUBER - SELECTRIC - SMITHWAY - SUNDEAU - THERMOGRAY - THERMO-WATT - UNIVERSAL - WEEK - WESTINGHOUSE



... in a house wired for an Electric Range!



LETTERS

(Continued from page 55)

Marker for steps

To the Editor: The entrance floor level of one of our local churches was originally above street level, but changes in town grades brought the payement up to floor level.

Twenty years ago, I remodeled and renovated the building. In order to overcome the disadvantages of the same street and floor level, I raised the floor level of the new entrance vestibule 8 inches above the pavement. This level was carried inside and past the stairways. This made one step down from three sides of the vestibule.

Can you suggest any means of marking or identifying this step by paint or otherwise, so that anyone approaching the step would not mistake it, and accidentally make a misstep in passing from the entrance down to the main floor level?—N. P. WALTERS, Centreville, Md.

Time to count noses

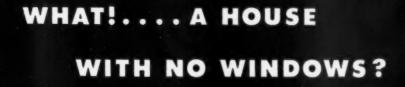
(The following is taken from a letter addressed to Congressman John W. Gwynne, third Iowa District.)

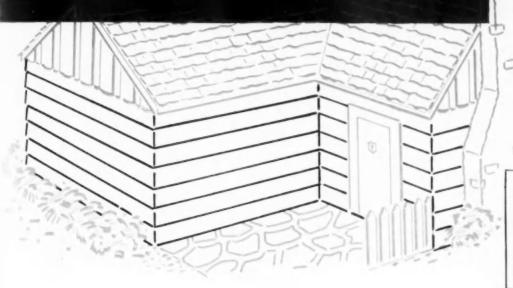
"This bill (S. 866) is up for committee hearing in the house very soon. We hope you will use your influence to force this bill out on the floor of the House, and then force a vote with a record of every Congressman's vote.

"It was passed in the Senate by a voice vote, because the majority of the Senators were afraid to go on the record. We believe Congressmen are made of sterner stuff, but if not, we want them forced to put their names on the dotted line.

"The decision this nation has to make right now before the next election is between free enterprise and socialism. Are we going to oppose Communism in this country as a strong, dynamic, solvent nation united under the free enterprise system? Or are we going to become a weak, socialistic country, staggering under increasing federal debt, burdened with unbearable federal taxes, and torn by internal strife? Let the present Congress decide right now, before the next election. Force the Congressmen out into the open by a recorded vote on the T-E-W bill. Then force a recorded vote on the socialized medicine bill and the federal aid for schools bill. Let's get a roll call vote on all of them right now before part of the Senators and all the Congressmen come up for reelection this fall.

"I, for one, am sick and tired of the cheap, panty-waist, something-for-(Continued to page 58)







WIDER WINDOWS IN SAME SPACE

A house without windows would be fine for builders. It would save them time, labor and money. But even with windows you can save on building costs and on labor by buying pre-assembled, ready-to-install window units.

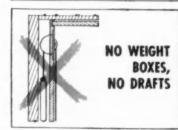
You can save *additional* time and money and add to owner satisfaction if these pre-assembled windows are equipped with Pullman Sash Balances. Pullman balances eliminate the need for weight boxes... make possible wider window areas... allow the use of narrow, modern trim, or no trim at all.

Owners are pleased with the ease with which the windows raise and lower.

They can feel for themselves the perfect balance between the spring tension and the sash. They don't have to lift the weight of the window against friction. They will also like its appearance. Owners want windows which are draftless—perfectly weather tight. They want windows where insulation can be butted up to the window frame. With Pullman-balanced windows you give owners the construction they want at no extra cost to you.

That isn't all! Pullman balances give you an exclusive sales advantage. They are guaranteed for the life of the building. No cords to break. No weights to fall. Complete owner satisfaction.

Ask your dealer for Pullman-balanced pre-assembled window units.
Or for information write Pullman Manufacturing Corporation,
325 Hollenbeck Street, Rochester 5, N. Y.









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LETTERS

(Continued from page 56)

nothing brand of politics we have had in Congress under the New Deal and for the last two sessions under a Republican majority. Let's face the issue, and force a show-down at once. I know of no better way than to get a recorded vote on all three of these socialistic bills.—J. H. CHAPMAN, C. W. Chapman Lumber Co., Waterloo, Iowa.

House plans

To the Editor:—I would like to make a suggestion in reference to the blue prints usually in the middle of the magazine. The plans, elevations and sections consist almost entirely of modern or rambling houses. While the trend is modern today, there are many who like Colonial, or especially Cape Cod. I suggest that the blue prints vary, using modern, Colonial and Cape Cod alternately.—ALBERT L. BROWN, 1422 Potomac Ave., S.E., Washington 3, D.C.

Anniversary Coming Up

To the Editor: I am renewing my subscription. If I live to receive the issue of December, 1950, it will be 30 years continuous, as I subscribed to American Builder in 1920. Have missed only one copy.—ALVA A. SMITH, Fayette, Ohio.

Commends Article

To the Editor: We have received copies of the issue with the article on houses designed by us for Dean Wainwright Co. This is an excellent presentation of this project, and we appreciate being credited with planning same.—HUGH MARTIN, Miller, Martin & Lewis, Architects and Engineers, Birmingham, Ala.

German impression

To the Editor: Yesterday I received your package with copies of recent issues of American Builder.

I have been very much surprised about the enormous progress of the American builder and home building. Perhaps you will wonder why I have such an amazing interest, especially in American' home building. It is because I intend to immigrate to the United States. My grandfather lost his property to the bolshevists after World War I, and my father lost all of his property after World War II. I don't intend to lose my life work, too. I presume the American Builder is showing me the right way to do things.— SIEGFRIED FOR-STREUTER, 24 Bielefeld, Markische Str., 24, British Zone, Germany.

Savings for You... SKIL Saw!

SKIL SAW Handles Easier Anywhere...
Saves Time... Cuts Materials of All Kinds... Cuts Costs



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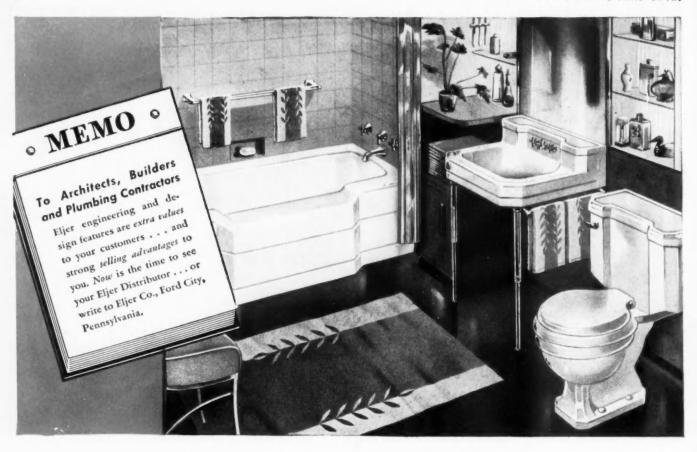
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Your customers want these ELJER features!

Features of Enameled Cast Iron Bathtubs

Thick vitreous enamel, fused to rugged, rigid cast iron, creates a permanent, satin-smooth finish. The wide, frontrim seat is only 16 inches high...easy to step in and out. Tub interior is full size to permit a luxurious, reclining bath. Bottom is flat... for safety's sake. End seat is ideal for bathing children, foot bathing or a sitting shower.

Features of Real Vitreous China Lavatories

Sparkling, glass-like finish, fired at 2200° F., becomes an integral part of the clay base. Resists stains and the effects of all ordinary acids. Overflow outlets concealed under front, anti-splash rim. Generous shelf space. Eljer's quality faucets turn ff and on with a touch of the finger and all wearing pa, are ecsily renewable.

Features of Eljer Water Closets

Integral china overflow and ground-in valve seat eliminate

metal tubes that invite corrosion. Ball cock adjustable to variations in water pressure. Full size, syphonic, jetaction bowl with "Elvortex" whirlpool jet . . . quiet action and positive flush.

Matching Design

Eljer's complete line includes a wide variety of related, yet distinctive styles, to meet the most discriminating requirements . . . in bathroom, powder room, laundry or kitchen. All designs match harmoniously to create beautiful ensembles.

Matching Color

Eljer Fixtures are furnished in four beautiful pastel shades as well as white . . . and the lustrous finish of Eljer's Vitreous China or Enameled Cast Iron Fixtures is easy to keep clean and new looking.





MONTHLY REVIEW

NEWS OF THE NATIONAL ASSOCIATION OF HOME BUILDERS AND AFFILIATED ASSOCIATIONS

Second Annual Chicagoland Home Show Features Many Educational Displays



HUGE THRONGS visit Chicago Coliseum to view vast array of new products and services for the home. Visitors learn practical ideas for better living

Despite unseasonal cold and rain, the Chicagoland Home Show of 1948, sponsored by the Chicago Metropolitan Home Builders Association, was attended by over 100,000 persons. More important than the total attendance figure, and of prime importance to the exhibitors, was the type of visitors. In a spot check of 500 persons who stopped at his booth, one exhibitor reported 95 per cent were either home owners or prospective owners.

The show was held at the Chicago Coliseum May 1 through May 9. Paul S. Van Auken, managing director for the Chicago Home Builders Association, was in charge. Displays filled over 150 exhibit spaces and offered an array of products, services and ideas comparable to those at the annual NAHB Convention, Exhibitors totaled 166.

The outstanding feature of the show was its completeness. Everything pertaining to the home—from planning to financing to construction to furnishing—was covered. The objective was to help the average householder understand what actually goes into a home and what features should be stressed.

Chief attraction was the full size Industry Engineered House built by The Edward Hines Lumber Co. of Chicago. The first house in the Chicago area to be built in accordance with engineered housing principles, it drew considerable interest from Chicago's leading newspapers as well as from the spectators. The house was constructed with cutaway sections to give prospective home owners an opportunity to study construction detail.

The Builder Association's own ex-

hibit the "Home Seekers Supermart" was the number two feature in point of public interest. Current building projects of members were described and illustrated on panels, and literature distributed. According to Martin C. Huggett, executive vice president, inquiries were so numerous that literature expected to last the duration of the show was exhausted in two days, and additional personnel was required

to handle the crowds. A special clinic service offering information on planning, financing, building, and equipping a house was swamped with requests for counsel.

Innovations which created considerable public interest were audience participation broadcasts from the Coliseum; a bricklaying contest held each day among apprentice bricklayers, and an exhibit of miniature scale models of the Engineered House, built by competing teams of boys from craft shops of Chicago Parks.

NAHB Officers and Directors Rally to Defeat T-E-W Bill

When Congressional discussion of the T-E-W Bill and other housing legislation was at its hottest in Washington, early in May, officers and Directors of NAHB, spearheaded by President Milt Brock, called personally on their representatives in Congress to urge defeat of the bill and passage of the Wolcott Bill as a substitute. Nearly 200 builders, representing far more than that number over the country, were in the nation's capital for a national association meeting, and took advantage of the fact to voice their opinions of the highly controversial legislation.

Durbin Heads New Michigan Association



OFFICERS of the Michigan Home Builders Association: left to right, Ward H. Blackall, vice president; Keith Hicks, secretary; Harry J. Durbin, president; Nathan E. Haskill, treasurer. Other vice presidents, not pictured, are Gerald Healey, W. H. Guinan, George Duke, Jr., and Peter Leenaars

The newly formed Michigan Association of Home Builders at its recent organization meeting elected Harry J. Durbin, Detroit, as president. Keith Hicks of Lansing is secretary, and Nathan E. Haskill, also of Lansing, is treasurer.

There are five vice presidents, each of whom is chairman of a major committee, as follows: Gerald Healey, Flint, legislative; William Guinan, Detroit, mortgage finance; George Duke, Jr., Detroit, veterans' affairs; Ward H. Blackall, Grand Rapids, membership; and Peter Leenaars, Battle Creek, public relations.

Howard C. Walsh served as temporary chairman of the association. Headquarters will be in Lansing.



Cortright's Column

By Frank W. Cortright

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

"NATIONAL HOME WEEK" sponsored in every city throughout the country by Home Builders Associations begins September 5th, 1948.

For the first time in the history of this industry, builders will at one time show the home-buying public what they are building and how they build it. In cooperation with newspapers, stores, dealers, bankers, realtors and labor, they will drive into the public consciousness the full magnitude of their operations, the quantity and the quality of their product.

No reputable, wide-awake home builder can afford to miss this opportunity for cooperative, educational activity benefitting both home seekers

and the industry.

Certainly, the desire of Americans to have a home of their own is a deep one. At the end of last year, the percentage of owner-occupied homes had risen to 55, with the tenant-occupied homes down to 45 per cent. This direct reversal of previous proportions underlines that deep desire; our story of new homes completed and under construction will strengthen it. "NATIONAL HOME WEEK" will demonstrate to the public that the

"NATIONAL HOME WEEK" will demonstrate to the public that the home builders of America build attractive, sound, livable homes. Builders will provide the visible proof—from the digging of the foundations and the laying of the footings, to the raising of the ridge pole and the completion of the home.

"NATIONAL HOME WEEK," will demonstrate that the gyp, fly-bynight builder has no place in our system—that builders build for their community and nation, as well as for hard-earned profits—that they are men of ability and integrity—with a stake in their community

men of ability and integrity—with a stake in their community.

Builders know by now the purpose of "NATIONAL HOME WEEK"—that the program for the week is under the sponsorship of the National Association of Home Builders in cooperation with other interested groups. Homes will be on display. Projects will be on display. Some will be in various stages of construction. Others will be completed. Some will be furnished; others will be unfurnished.

I cannot urge you too strongly to participate to the full in this activity. All segments of the building industry, and all those related and in-

terested in it, have a golden opportunity.

Call the executive officer of your local Home Builders Association as to what you should do, how you can capitalize on this important project. If there is no builders' group in your town, write to us for an instruction kit. This outlines the method to be followed in contacting your local newspapers, radio stations, stores and civic groups, realtors, lumber dealers, bankers and city officials. With their help you can be sure of a successful HOME WEEK in your community.

The home building industry of America was the first to regain its full stride following World War II. Home builders have completed more than a million and a half new homes during 1946 and 1947. They are meeting the problem of a disruptive housing shortage. They have cooperated with every division of government and with other segments of the industry. The NAHB National Home Week will show how this was done—and what the splendid end-results are.

Millions of veterans, men, women, and children have been housed in new, well-built, livable, safe, attractive, decent homes. This is preserving our way of life; is producing a vigorous nation of home owners.

our way of life; is producing a vigorous nation of home owners.

"NATIONAL HOME WEEK" will prove to the public that home builders have quickly grasped and adopted skilled methods, new materials and techniques, and have been fast in the utilization of modern tools and equipment. This September and every September from now on we will prove what we can do—we will sell a full appreciation of home ownership and the American way of life.

Dallas Forms Veterans' Panel To Probe Building Complaints

The Dallas Home Builders Association took the initiative in forming a veterans' panel in Dallas to investigate complaints of faulty construction. The panel was formed by Angus Wynne, a builder and veteran, who was named by the builders association to head a committee charged with working out a solution to the veterans' complaint problem. Mr. Wynne has invited representatives from all Dallas veterans' organizations to sit on the panel, along with FHA representatives and those from the home builders association.

Mahoning Valley Chapter Stages New Home Show

At Youngstown, Ohio, the Home Builders Association of Mahoning Valley staged the first home show to be held in that area in seven years. Participating in the opening were Jack



ED GENSLER, left, chairman of Mahoning Valley builders' home show watches Mayor Charles Henderson of Youngstown opening the show

Heath, president of the association; E. H. Gensler, vice president and show chairman; Chris Bode, Jr., treasurer, and C. E. McGranahan, executive secretary. E. W. Stease was director of the show. It is hoped the Mahoning Valley show will become an annual event.

Seattle's Building Labor Agrees to Waive Wage Boost

Setting an example that might well be followed in other parts of the country, the Buildings Trades Council in Seattle has agreed to waive a 6½ cent wage raise which would have gone into effect July 1. The wage raise is provided under a six-month cost of living adjustment in its contract, the Seattle Master Builders Association reports. The association expects substantial savings in costs to builders and home buyers from the move.

Breakfast meetings of the trustees and advisory committees of the association have been so successful that the breakfast meeting idea has been extended to the whole chapter. The initial meeting was on FHA financing.

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Washburn New Secretary Of Maine Association

The Home Builders Association of Maine recently named Howard R. Washburn as its executive secretary. Mr. Washburn is an educator by profes-



HOWARD WASHBURN

sion, and has had considerable editorial experience in the home building field. He published a "Home Builders' Manual" in Portland. As part of his duties as secretary, Mr. Washburn edits an association monthly, the "Maine Home Builder.

San Francisco Home Show Is an Outstanding Success

With only preliminary reports on attendance available, officials in charge of the first annual San Francisco Home Show declared it an outstanding suc-Visitors, streaming through it during the eight days of the show, were in greater number than the most optimistic expectations. The crowd was especially interested in the many educational displays. Exhibitors at this year's show are already making plans for next year's show, and some reservations already have been received.

Hartford County Home Show Draws Record Attendance of 25,000



A STEADY stream of visitors passed through the model home erected at the recent home show held by the Home Builders Association of Hartford County

A record crowd of 25,000 persons visited the home show held in West Hartford, Conn., recently by the Hartford County Home Builders Association, Interest was high in a model home, erected inside the armory exhibit hall by the association members. The Hartford Times, the local newspaper, was co-sponsor of the show.

The design of the small model home was worked out by the Hartford Society of Architects. It is a basementless plan, and the model featured a utility room containing the heating unit, a hot water heater and storage space near the kitchen.

The modern kitchen featured a builtin automatic washer, as well as cupboards, range and refrigerator. The bath was finished in glazed tile. Although of small dimension, 33x22 with a 10x11 foot ell, the house has three bedrooms.

Meet Frank Nerone, New **Executive in Pittsburgh**

Frank Nerone, new executive director of the Pittsburgh Home Builders Association, has a good background of experience in fields close to building. He has served as executive secretary of the Pittsburgh City Planning Commission,



FRANK NERONE

as assessor for the Board of Assessment and Review of Taxes and as Appraiser and Inquisitor for the Board of Inquisition for the Orphans' Court.

Portland Breaks Ground For Blandings' Dream House

The Portland Home Builders Association is one of the groups erecting a "Blandings Dream House" to cash in on the publicity surrounding the release of the motion picture, "Mr. Blandings Builds His Dream House." The movie is to be generally released early in July, and the association hopes to have the home on exhibition when it is released in Portland. Speakers at the groundbreaking ceremonies included Oregon's Gov. Hall, Herman Schmitt, president of the Portland association, Edwin Sandberg, regional NAHB vice president.

Toledo Panel Sees Home Market Collapsing if Wages Go Higher



A PANEL discussion on the stabilization of labor costs in Toledo recently arrived at the conclusion that another round of wage increases will price homes out of the market. Men on the panel included Harold Sturdevant, Paul Fuller and Raymond Pyle of Toledo; Rodney Lockwood, Harold Durbin and Earl Doyle of Detroit: Norm Watkins and Bill Tobin from NAHB in Washington. At the left in the picture is Dale Mehring, Toledo association president, and in order to the right are Pyle, Doyle, Tobin, Sturdevant, Watkins and Durbin

Am

Long Island Chapter Designs New Insignia

The Long Island Home Builders Association has designed new insignia combining the national association eagle with the name of the local chapter. It was created for a membership drive.

The association also has opened an extensive "Library of Homes" exhibit at the Dime Savings Bank of Brooklyn.



OTTO HARTWIG, executive secretary of the Long Island Home Builders Institute, shows new insignia designed for the chapter

The bank furnished 3,300 square feet of exhibit space without charge and is carrying on a promotion campaign to publicize the exhibit by newspaper, direct mail and outdoor advertising. The exhibit is to stimulate interest in home ownership,

NAHB President Brock Helps Open Oklahoma City Show

A record number of Oklahoma City Home Builders attended the regular dinner meeting on April 15, when Ed Gavin and R. H. Morris of American Builder were special guests. Morris talked briefly of his experience in the publishing end of the building business, summarizing the building picture from 1923 to the present time. Editor Gavin discussed the federal legislative situation and pointed out the need for organization and unity among America's home builders. Both speeches were recorded, and members ordered transcriptions for their own use.

Friday, April 16, Milton Brock, president of the National Association of Home Builders, along with Morris and Gavin, was guest of the Oklahoma City Home Builders at a cocktail and dinner party. Also present were Grover Godfrey, executive vice president of the Dallas Home Builders Association: Fred Seale, Amarillo home builder, and several officials of National Home Shows, Inc.

The Oklahoma National Home Show, which opened Saturday, April 17, was preceded by a luncheon at which Brock was the honored guest. Special guests at the luncheon included the Honorable Allen Street, mayor of

NAHB President Visits Philadelphia



THE annual banquet of the Philadelphia Home Builders Association was a gastronomic delight, attended by about 500. Having fun in "clambake" aprons are, left to right, NAHB President Milt Brock; Executive Vice President Frank Cortright; Mrs. Peggy Raynor, special assistant to Mr. Cortright; Russell Muth, president of the Philadelphia association, and Herbert Howe of the Land Title and Trust Co. The banquet was held during the home show

Oklahoma City, Mr. and Mrs. Morris, Mr. and Mrs. Gavin, J. V. Tully, chairman of the Home Show Committee, J. Wilson Swan, president of the Oklahoma City Real Estate Board, Oliver Black, president of the Tulsa Home Builders Association, Godfrey, E. P. Lamberth, and Avery Mays, all of Dallas, Texas. Others at the luncheon were active and affiliate members of the Oklahoma City Home Builders,



KIOWA Chief Saunkeah, Honorary Kiowa Chief Milton "Great Builder of Many Wigwams" Brock, and Mrs. Saunkeah

their wives, and exhibitors at the Home Show.

High spot of the luncheon was the presentation of Indian headgear to Brock by Kiowa Chief Saunkeah and his wife. As the feathers were placed on Brock's head, he was named honorary Kiowa chieftain "Great Builder of Many Wigwams."

Immediately following the luncheon 10 buses transported the luncheon guests from the Skirvin Tower to the Municipal Auditorium for the premier opening of the Home Show. An hour later the show was formally opened.

The Oklahoma National Home Show lasted nine days. An estimated crowd of 77,000 people saw the various display—an average of more than 8,000 a day

Denver Magazine Shows How Slums Can be Eliminated

The Denver Association of Home Builders monthly magazine has an attractive new format. In the first appearance in the new dress, the magazine carries a meaty formula for clearing up slums in Denver. Stanley C. Brandenburg, executive vice president, tells how the job can be done in an editorial.

Brandenburg's recommendations are that Denver's mayor give thought to enforcement of local health and building regulations instead of seeking federal funds for clearance of Denver's so-called substandard areas. In effect, he advises the same kind of program that Baltimore has been carrying on and which has been widely publicized by NAHB.

Bridgeport Association Names Arnold Olson as Executive

Arnold P. Olson has been named the first executive secretary of the Home Builders Association of Greater Bridgeport in Connecticut.

Mr. Olson is experienced in advertis-



ARNOLD P. OLSON

Roofi

ing and sales promotion in the building materials field, and as a public relations consultant. 1948.

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for immediate delivery another sales-builder!

Carey BRICSULATE insulated brick siding!

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insulation plus structural strength

pleasing brick or stone design and house-time beauty

thick granule coverage— Brick design in Red, Red Blend, Tapestry, Gray Blend or Light Buff

stone design in Gray Blend

shiplap edges all around—for precision alignment, easy application, greater uniformity—no "picture framing" along individual panel board edge

Here it is...back to help you sell more siding jobs... Carey Bricsulate! It features plus qualities such as: thick, 1/2 inch weather-tight insulation board... CAREY asphalt saturating top and bottom, with deep penetration that assures 50% longer weathering... heavy mastic coating that is locked right into the surface, with every single piece inspected to be sure the coating is anchored...pleasing, colorful granules deeply embedded for lasting beauty... shiplap edges all around, for tighter weather seal, easier application, better finished appearance! Look at the additional qualities listed on the left.

Better? You bet it's better! Add this quality **CAREY** product to your line today. Like *every* **CAREY** product, it's backed by 75 years of constant, careful research and development. Also available in stone design.

CAREY line. Carey Bricsulate sells. You'll build more business with better satisfied customers. Order direct from your CAREY dealer or drop a post card to Dept. AB-6.

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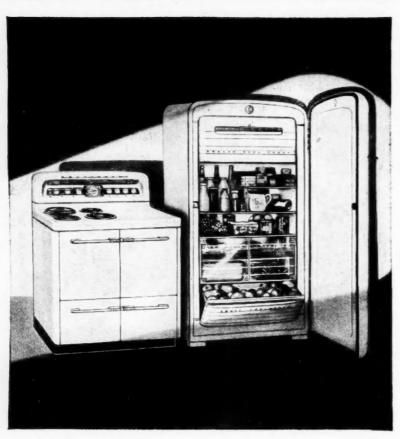
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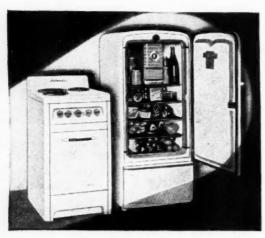
Now You Can Choose from 5 New Kelvinator Refrigerators all 31¼" Wide...4 New Kelvinator Ranges and a Home Freezer, all 39" wide.

Yes! The identical widths of Kelvinator's 5 new 1948 Refrigerators plus 4 Ranges and a Home Freezer, all one width, give you a ready reference for easy kitchen planning. And when you plan this easy, Kelvinator way, your clients can choose any combination of top-quality Kelvinators within their budgets without a change in floor plans!

Ultimate in efficiency...Kelvinator's new kind of refrigerator is refrigerated from Top-To-Bottom. It provides $8\frac{1}{2}$ cu. ft. within the shelf area, plus approximately 2

cu. ft. used by the new refrigerated Fruit Freshener. Takes no more floor-space than many refrigerators of smaller capacity. Companion-piece...Kelvinator's "Automatic Cook" Electric Range, now with all controls on the new back panel...easy to see and use. "Up-Down" unit converts from deep well cooker to 4th surface unit...giant double-unit oven...new Electric-Fast surface units . . . pressure cooker available for deep well! And there's the new 6 cu. ft., Space-Saver Home Freezer to give any family deluxe eating with economy.

Kelvinator-of Course!



For Smaller Kitchens ... "Space-Saver" Package gives Small Kitchens BigKitchen Advantages!

"Space-Saver" Refrigerator, 24" wide, is full 6 cu. ft.—holds 50% more food than the prewar model of identical outside dimensions. Companion range is only 21" wide—new design permits installation flush against wall. Features a full-size oven... three new, Electric-Fast, tilt-up surface units—one 8", two 6". Kelvinator quality throughout.

For further information, write Kelvinator Division, Nash-Kelvinator Corporation, Detroit 32, Michigan. 948.

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Senate Action on S. 866

PASSAGE of S. 866 in the Senate appears to have been the result of a welter of complex political maneuvering for personal and party preferment in an election year. It is regrettable, if not tragic, that a bill on which hangs so much of the future of free private enterprise and representative government should have become a mere political football in the upper branch of Congress.

Very briefly, this is what happened in the Senate. As in 1947, when the bill died in the House after being passed by the Senate, S. 866 was reported out of the Banking and Currency Committee by the narrowest possible margin, a 7 to 6 vote. This almost even division of opinion in committee should have called for adequate public hearings, which were not held. After several days of debate on the floor, during which efforts were made to strike the public housing provision from the bill, a roll call vote was taken. The result was 49 for the public housing feature, 35 against, and 12 not voting. The 49 who voted for the public housing section included nine Senators who heretofore have been on the other side. Capitulation to the political expediency of the moment appears to be the only explanation for the switches.

While a roll call vote was taken on the public housing section, a voice vote was taken on the bill itself. Such a vote can be justified only when it seems unnecessary, for any of a number of reasons, to record who votes for and against. Certainly, the importance of S. 866 and the interest in it are great enough to have warranted a roll call vote. The fact that a voice vote was taken, and at a time when many seats were vacant, seems to indicate that a majority of the Senate did not wish to be on record in so controversial an issue. It leaves each Senator a choice of several ways to explain his recorded vote on public housing if, during the election campaigns, he should find it desirable to straddle.

By the time this appears in print, the House probably will have disposed of the bill in committee or on the floor. At this time (May 1) it is idle to predict what will happen. If the House succumbs to the same type of political chicanery that appears to have influenced the Senate action, and thus permits its individual members to evade responsibility to their constituencies, the country will be committed to an almost irrevocable federal public housing program. Experience in other countries has shown that once a little public housing is begun, there is no way to stop the spread. Eventually, all housing is public housing, and there is less housing and at higher unit costs than under a free competitive system.

At this time it can only be hoped that the House meets the issue with the same intelligence and courage it has displayed in the past. If it does, the public housing section of S. 866 will be defeated. If, however, the House goes the way of the Senate, the industry will have to constitute itself a vigilance committee to dig out the facts on public housing costs and results under S. 866, and disseminate those facts widely. An informed public can be depended on to demand repeal of the public housing section of the bill.



AIRPLANE view of Essex Village shows downtown Miami in the background

Mass Production

Pre-assembled wall units, transported from assembly yard to house foundation by an ingenious method, help Miami builders keep costs low

THOMAS P. COOGAN, Miami, Fla.

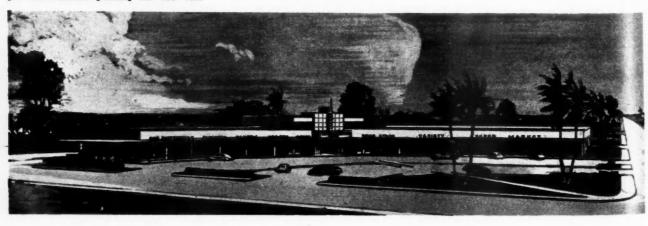
ARCHITECT'S drawing of shopping center now under construction. This building will contain ten stores representing different businesses. Center is loid out to provide off-street parking for 100 cars SSEX VILLAGE, a new community to house 3,500 persons in the Miami area, is being built in suburban Hialeah.

Developed by Coogan-Davis, Inc., the \$7,000,000 project eventually will include 600 two- and three-bedroom homes selling at \$6,700 to \$7,600, a complete shopping center, 70 duplexes and 112 apartment units for rental purposes. When completed, it will be a self-

sufficient community with all the municipal services of the city of Hialeah.

Thomas P. Coogan, secretary of the National Association of Home Builders, and past president of the Florida Home Builders Association, is the developer and builder of Essex Village. William M. Davis is associated with him.

Work at Essex Village was begun in January, 1947. By the end of





A COMPLETED Essex Village home, one of the 600 being constructed in Higlegh, a suburb of Miami, Fla.

Does It—A House for \$6,700

this year, about 350 homes will be completed if building schedules which now average about two homes a working day, are maintained. The shopping center is under construction. Work is to start soon on the 70 duplexes, to be followed by the apartment units.

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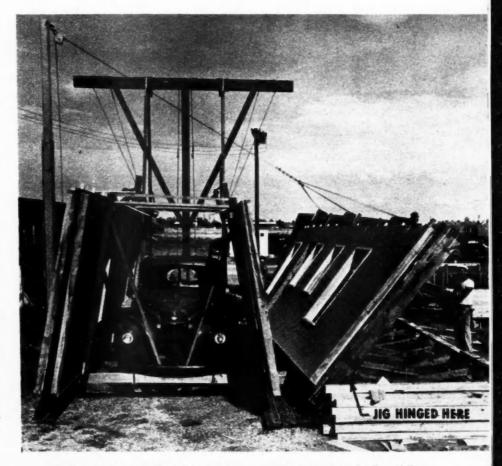
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Most of the homes are occupied or are being built for veterans. Located on 60x108 foot lots, these well-designed frame houses will sell for \$6,700 for the two-bedroom types and \$7,600 for the three-bedroom unit. The price includes electric stove, refrigerator and a hot water heater. This is an attractive sales point to the GI purchasers. FHA mortgages, financed through Investors Syndicate, are for \$6,000 on two-bedroom homes and \$6,700 on the three-bedroom type.

"We have several goals in this development," said Mr. Coogan. "The foremost is to offer to purchasers, particularly to veterans, a good home, well-built, well-planned and nicely located. Another goal is to develop a high class residential community. We feel that we are doing this by making use of all municipal facilities Hialeah has available and by setting up restrictions on future building within the community to prevent deterioration of values.



WHEN α wall is completed, it is lifted on α specially-rigged truck. Top of jig table is hinged to allow wall to lift to vertical position on frame carrying panel

"We have planned our homes on the basis of materials available, to offset as much as possible high prices and shortages. We have endeavored to give purchasers all the essentials of comfortable living and, at the same time, to keep our price range so that the purchase of our homes is a possibility for a large group of veterans."

A new form of house assembly the only one of its kind—is used by the Coogan Company to achieve maximum production. Virtually all lumber for the homes is pre-cut to exact measure in the assembly yard on the project. Walls are assembled, one by one, with the use of a jig. As each wall is constructed, it is loaded on a specially-rigged truck, and when four walls are completed, the truck rolls off to the site of the house. There a crew unloads the four walls, one at a time, directly from the truck to their position on the prepared foundation, makes them fast, ties them together—all in the space of about half an hour.

The truck is rigged with a special





CARPENTERS in Essex Village assembly yard complete a wall or "panel," using pre-cut timber which is quickly fitted into place. Other assembly work is also being carried on in the yard. Completed homes are in background. Typical plan of two- and three-bedroom houses shown below. Variations in layout are made on basic plans

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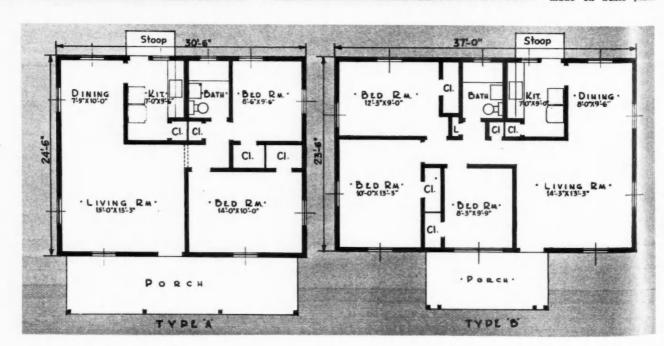
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ONE of the numerous streets in the Essex Village development showing large number of houses already completed. Note number of variations in exterior treatment of the basic floor plans

THOMAS P. COOGAN, builder, opens the door of his two hundredth completed home for the daughter of a marine veteran who has just taken possession of the new house

frame which accommodates two finished wall panels on each side. The bottom of the jig table is hinged to its supporting frame. The jig table and panel are lifted to a vertical position by a gin pole a convenient distance from the jig table to permit the specially-rigged truck to drive between the table and pole. The panel slides off the jig onto the truck rigging. This process is repeated until all four panels are loaded. They are placed on the truck in their proper sequence to expedite the assembly of panels on the site.

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Gables are assembled in the same

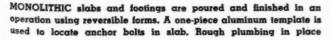
mapner and are delivered by truck to the houses. Virtually all lumber needed for beams, rafters, and partitions is delivered pre-cut and in exact amounts to each job.

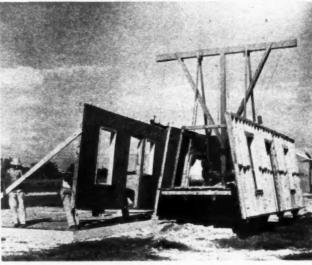
The two basic plans of two- and three-bedroom types have ten exterior variations. More variety is gained by staggering the position of the houses on lots. Different colors are also used in the shingles on sidewalls and roof, as well as in the trim.

Coogan-Davis, Inc., has put in all the paved streets and utilities for Essex Village, developing the subdivision from entirely unim-

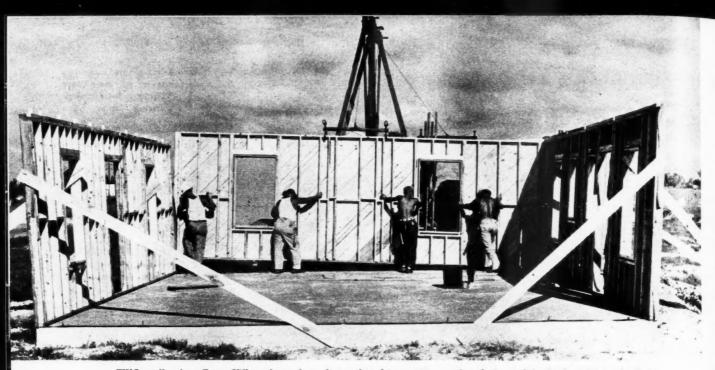








WALL installing operation. The first wall is being lowered into position after having been delivered to site by specially-rigged truck. Balance of walls are quickly placed and anchored



TWO walls of an Essex Village home have been placed in position on foundation, while third wall is unloaded from truck. Crew makes the walls fast and ties them together. The four walls are placed in position in half an hour

proved property. Landscaping includes spot sodding of grass and the planting of quick-growing trees and shrubs.

The shopping center, to cost approximately \$400,000, will house about ten major stores, representing the various types of business needed to make a one-stop center. A theatre which is planned for the shopping center will be added later. The business center is laid out to provide ample off-street parking for about 100 cars. The store building will be screened from the adjacent residential sections by land-scaping. The apartment units and the duplexes, rental properties, will be near the shopping center.

be near the shopping center.

James W. Voorhies, Miami, Fla.,
is the architect for the project.



ADDITIONAL area is gained in the living room through elimination of a separating partition to the dining portion. This arrangement permits an extension of activities from one room into the other, whenever the need for added space arises

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SMART, stylish interiors are possible in Essex Village homes as indicated in the view of living room at left. Asphalt tile floors throughout are placed directly on concrete slab. Sheetrock for wall finish is covered with heavy mastic paint

ECONOMY HOUSE

For June Brides

June Weyerhaeuser Design No. 4130 has a cubical content of 20,020 feet, with space for finishing second-floor bedroom and lavatory later



THIS house has a simple design pattern, given character by shutters and windows

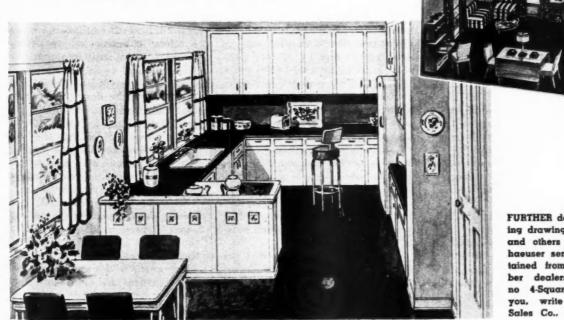
THIS small house design has many features for convenience as well as economy. While defined as a four-room, one-story home, it is designed with a built-in stairway to the unfinished second floor. When desired, a third bedroom with a lavatory may be added. To achieve economy the second-floor lavatory will utilize the same soil pipe as the first-floor bathroom.

In designing the exterior of this home, the architect has used a simple, popular design pattern and given it character by the ingenious use of colorful shutters of unusual design. Note how the sash are divided with horizontal muntins to give accent to the feeling of modern design, and to contribute highlights which make a home so invit-

ing to approaching guests.

of ning mits one e r The living room, 18x11 feet, 5 inches, offers many possibilities for furniture arrangements. The long, clear wall at the rear serves as an excellent base from which to plan a furniture layout. Two double-hung windows in the front wall and one window in the side provide good ventilation and ample natural light. The kitchen is in a modified U-shape, with generous cabinet space and all facilities conveniently arranged. The dining area is next to a window and separated from the kitchen by a counter rail. The bedroom has two large closets and a vestibule closet is conveniently located near the front entrance.





FURTHER details and working drawings on this house and others in this Weyerhaeuser series may be obtained from 4-Square lumber dealers. If there is no 4-Square dealer near you, write Weyerhaeuser Sales Co., St. Paul, Minn.



WELL built, simply-designed small homes find ready acceptance in Indianapolis subdivision,

House, Lot and Landscaping \$7,700

In his book "Inside U. S. A."

John Gunther cites Paul Hoffman, president of Studebaker Corporation, currently head of the Economic Cooperation Act, and a native of Indiana as "the kind of modern executive who is testimony to the fact that despite everything the free enterprise system will work if you think of it in terms of enterprise for the many, not just the few."

Operative builders of Marion County, Ind., further demonstrated this fact by completing 4,300 homes in 1947, the largest number in the county's history, and sufficient to alleviate to some extent the housing shortage of the community.

Typical of the kind of low-cost housing which comprised a large percentage of this total figure is the small home built by A. H. M. Graves, prominent Indianapolis builder. Realizing the sense of civic responsibility and community pride that comes to a man who provides his family with a home of its own, Graves developed a practical small home to sell for \$7,700, including a 40x174-foot lot.

Designed by Alden Meranda, Indianapolis architect, the house is a one-story $4\frac{1}{2}$ room frame bungalow, trimly tailored in appearance. Its compact layout and sturdy construction reduce maintenance to a minimum and keep heating costs down. The floor plan is flexible and can be varied for both interior and exterior treatment.

The overall dimensions of the house are 24 feet by 30 feet, providing a living area of 14,800 cubic feet. A full basement made from concrete blocks with concrete flooring forms the foundation. Exterior walls below grade receive a 1/2-inch coat of cement plaster and pitch or asphalt waterproofing. The siding is of beveled wood on insulation board sheathing, and the interior walls are plaster over 3/8-inch gypsum lath. Asphalt shingles are used on the roof. The house is insulated with 4-inch mineral wool.

The house was planned with an eye to the furnishings and living habits of its prospective owners. Thus, the windows of the living room and two bedrooms are so lo-

cated they provide space for diverse arrangements of furniture. The dinette is separate from both the living room and kitchen, and features a good-sized window and storage cabinet. Five closets provide adequate storage space.

Prefinished oak flooring is used throughout except in the bathroom and kitchen where linoleum is laid. Kitchen cabinets are of wood, milled locally, with linoleum tops. A metal wall cabinet with mirror is installed in the bathroom. One variation of the floor plan permits bathroom and kitchen plumbing to be installed back to back, reducing the amount of behind the wall piping. A warm air, coal-burning gravity furnace, with registers in the baseboards, comprises the heating equipment.

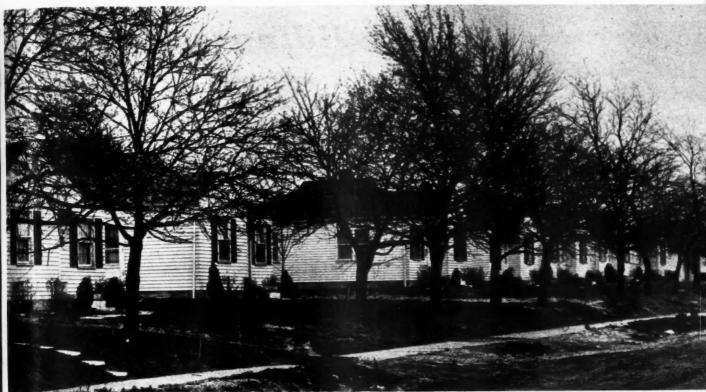
The house is delivered completely decorated. Attractive wall paper is used in all rooms except the kitchen and bathroom. Here the walls receive three coats of off-white enamel. Painted cloth window shades are also provided. Three coats of white paint are applied on the exterior of the house

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Basic landscaping, included in the sale price, enhances appearance of the community

Indianapolis builder converts delinquent land into thriving community of simply-designed small homes for moderate income group

with the slatted and batten shutters on the front windows painted in color. The yard is sodded to the rear, and shrubbery planted in front. A cinder side drive completes the landscaping.

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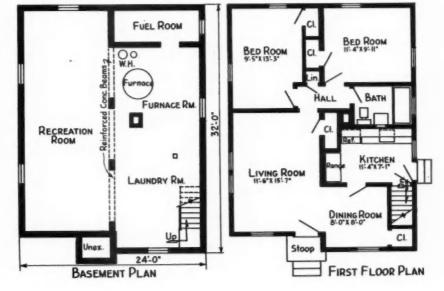
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Graves has completed 112 of these homes in a subdivision three miles southeast of Indianapolis, and has additional units currently under construction. Platted in 1911, the subdivision had only nine houses built when he began his development, although sidewalks, streets and sewers had been installed, and trees planted. Taxes and Barrett Law were delinquent, and the owners had given up expecting to realize anything on their investment. Today, city water, gas and electricity have been extended, and the property owners have not only been reimbursed for part of their investment, but have paid up all delinquent taxes, and Barrett Law.

All of these homes have been sold to veterans. Through the combination FHA and GI plan, the only down payment required (Continued to page 150)

TWO variations of floor plan. Plan shown above right is for house on corner lot. Basement provides space for recreation room, utility and heating units

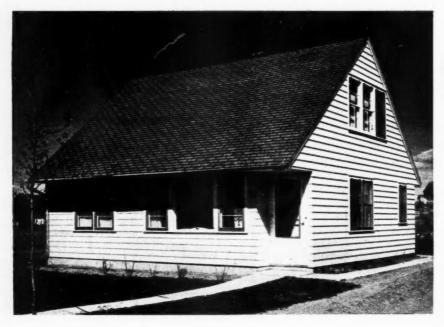






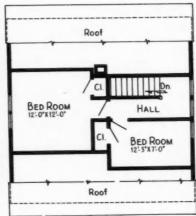
PARTIAL view of Sunnyside Homes was shot from nearby hill during construction period

Community-minded citizens collaborate with builder to produce outstanding piece of work in spite of transportation difficulties and material shortages





FIRST FLOOR PLAN



SECOND FLOOR PLAN

ONE-and-one-half story house costs \$9,250 with the second floor available for future expansion. Floor plans indicate the compact and well laid-out room arrangement NESTLED among the hills on the outskirts of Red Wing, Minn., is a 30-house project, called Sunnyside Homes.

Conscious of the lack of new homes in the area, Dr. Hedin, mayor of Red Wing, and Albert Marshall, owner of the Republican Eagle, the local newspaper, collaborated in this building venture to provide homes for veterans.

The project is under the direct supervision of Robert E. Cerny, a member of the firm of Long & Thorshov, architects, Minneapolis, Minn. Cerny, who also is a professor of architecture at the University of Minnesota, has designed a number of other outstanding veteran housing projects in the northwest area. He has a thorough knowledge of the service man's requirements. He has used many interesting innovations, consistent with economy of construction in this development.

Raymond Olson, builder of Red Wing, Minn., started work on the project in December 1946, on receiving a veterans' priority. Ceiling prices for the different units when the project began were \$6,675: \$7,315; \$8,100; and \$8,750. Since that time cost of labor and materials has increased about 22 per cent for the builder, necessitating an increase in the sale price of the houses. Currently the houses are listed at \$7,250 for the one-story one-bedroom house; \$7,750 for the one-story two-bedroom dwelling; \$9,250 for the one-and-one-half

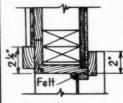
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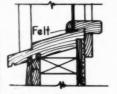
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Houses in a 30-Unit Project





FIXED HEAD



FIXED SILL

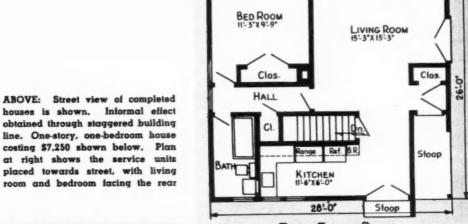


BEARING MULLION



CORNER MULLION

DETAILS of double-hung windows and fixed sash shows structural mullions for multiple-unit window openings



FIRST FLOOR PLAN





story two-bedroom unit with an unfinished second floor; and \$9,950 for the one-story three-bedroom house.

These four types follow a typical architectural pattern and are designed to accommodate the average veteran's family. Picture windows are used in all but the one-bedroom house with great effect. The roof pitch varies with each house, thus avoiding any tendency toward monotonous repetition. The closely clipped gables and wide projecting eaves give a sense of balance and proportion that

adds a measure of interest to an otherwise plain exterior.

Before construction got under way, the site was rolling, virgin territory, high in the hills overlooking the Mississippi river. Before any work could be started on the houses, it was necessary to install sewer lines, water mains, electric lines, streets and sidewalks. The land was subdivided into lots averaging 50 feet in width, with the street layout following a regular grid pattern. Provision was made in the layout for a children's playground.

All of the houses have full basements. When the nature of the terrain would permit it, garages were placed in the basement of the houses.

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The plans of each house-type reveal a number of interesting facts. In most of the room arrangements, a closet or wall was placed opposite the entrance door to act as a buffer to the living room. Living rooms are large in all types. In the one-bedroom house, the basement stairs are the only separation between kitchen and living room. The designer has



THREE BEDROOM, onestory house, costing \$9,900, is shown above. At left, is two-bedroom, one-story house for \$8,250. Both houses are of similar design, yet each one has a distinctive individual appearance



attempted, as far as it was practical, to open up the floor plans by combining several elements.

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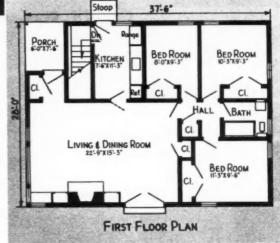
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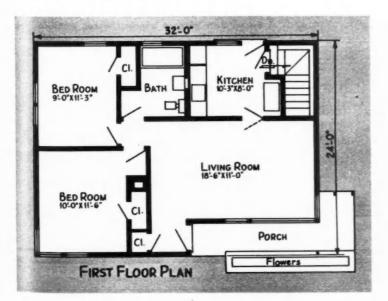
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tive nce A saw yard was established on the site where all lumber was precut to size. All cabinet work was fabricated in the saw yard. Carpentry, masonry, concrete work and all rough labor were handled by Olson. Plumbing, electric wiring and heating were sublet.

This is the first large scale operation this builder has done. In the past Olson was employed as building superintendent for a number of large construction companies. VIEW pictures large living room of three-bedroom house with builtin cases adjoining fireplace. At right, is shown plan of three-bedroom, one-story house. Plan of two-bedroom, onestory house is below





LIST OF MATERIALS USED

Concrete block foundations Concrete floors in basement Steel beams and columns in basement Wood window frames and sash Oak Floors, linoleoum in kitchen and bath Wood framing, shiplap sheathing Asbestos shingle roofs Galvanized gutters and downspouts Rocklath plaster base Clear pine interior trim Screens and storm sash **Rockwool insulation** Crane medicine cabinet Crane plumbing fixtures Crane Champion hot water heater Waterman forced warm air furnace Waterbury oil burner **Pratt and Lambert paints**



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Buys This Packaged Economy House

Volume sales and minimum profit on each house enable firm to sell in the low price range

THE Delta Corp., Los Angeles, Calif., is selling houses for as little as \$3,695 on today's high market. To sell at such a low price, Delta's dealers and contractors depend on a volume business. Profits are kept at a minimum on each house.

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The Delta Corp., headed by two young ex-servicemen Cedric E. Sanders and D. Gerrard Hoyt, sells, at a guaranteed contract price, a package containing complete materials for one house. The package includes all necessary framing lumber, roofing, exterior siding, interior finish, windows, doors and frames, trim and casing, shutters, window boxes, hardware, nails, and plans. Piping and plumbing fixtures, electrical wiring and fixtures are included in the price also, but are furnished by the local contractor who erects the house. All framing lumber is precision-cut at the Delta mill to exact dimensions and sent to the job ready to assemble.

The packaged house conforms with the requirements of the National Uniform Building Code, the California State, Los Angeles County and City Codes. It follows conventional construction, with 2x4-inch studs 16 inches on center, full sway bracing and solid roof sheathing.

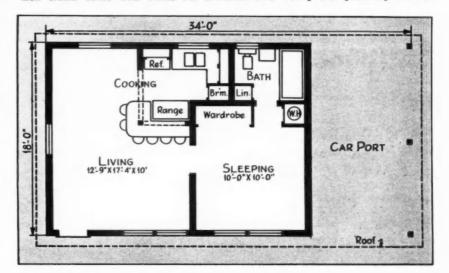
The Delta house comes in several models ranging from a living room, kitchen and bath unit to two-bedroom houses. The smaller units are designed so that additional bedrooms can be added economically and without detracting from the appearance of the house. There is a choice of modern, ranch, or colonial type in exterior design. Redwood siding is used on the exteriors, with vertical pine siding in contrast on the gable ends of some models.

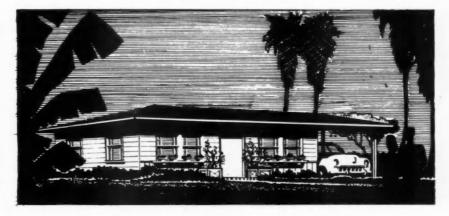
When a Delta dealer sells a house, he makes arrangements with the approved Delta contractor in his area to take the contract to build it. The contractor quotes the established price on the house plus any extras for plumbing and electrical hookups, building permits, walks and driveways. The contractor then orders the packaged house from Delta.

The company has found a large demand for the packaged house. Many of the units are purchased for income and erected on the rear of residential lots or in tourist courts and motels. Many are sold as resort cabins. The Delta Corp. feels it has one solution to the present housing situation.

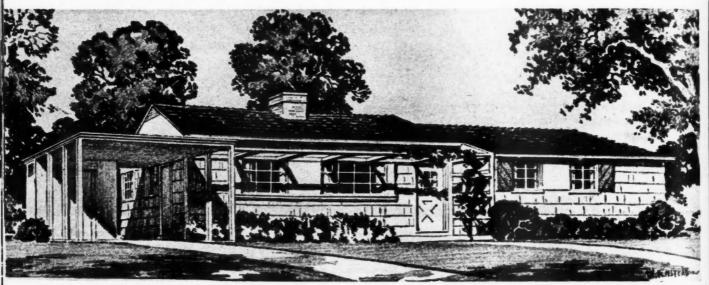


DELTA sales office, above, has wainscot of 12-inch natural finish redwood, Across ceiling are 6x12-inch beams stained red; between the beams are 4-inch boards painted green. When a Delta house is sold, arrangements are made with a contractor in the area to build it. The contractor quotes established price on house plus any extras for plumbing and electrical hookups, building permits, walks or driveways. Contractor then orders house from Delta, but furnishes own wiring and plumbing fixtures





Gricka BLUEPRINT HOUSE No. 17



FIVE-ROOM house contains approximately 1,000 square feet, is well-planned for privacy and convenience

Sufficient in Size—High in Quality

MOUSES of adequate quality and of sufficient area to accommodate the home owners' needs without overcrowding are in demand today. Granting that costs are up, nevertheless, the first requirement of good planning is to provide enough room for a family to live comfortably. This five-room house, designed by Architect Walter T. Anicka, Ann Arbor, Mich., contains approximately 1,000 square feet.

Incorporated in the house are as many of the latest conveniences as space and planning will permit. The rooms are arranged to give maximum privacy, convenience and sunlight. The front door opens into a foyer separated from the living room by a glass partition.

The fireplace is located in the center of the sidewall of the living room and is constructed of painted common brick. On the opposite wall is built-in storage space with a place for telephone, radio, phonograph records, and books. Cross ventilation is obtained in each bedroom through windows located on two walls.

The kitchen, while not large, is arranged in work and eating centers for maximum convenience. Utilities for heating and laundry work are located in the basement. A large space for recreational purposes is also provided.

A special feature of this house is the carport with large, outdoor storage space available for garden tools and oil tank. This area can also serve as an outdoor

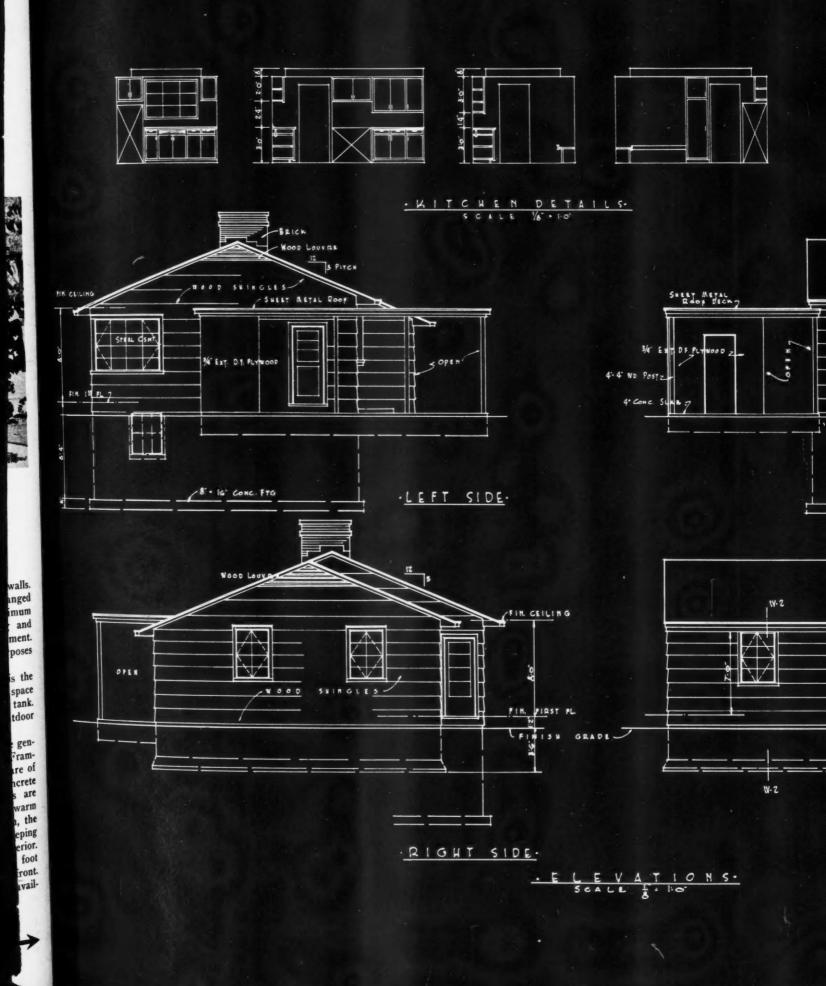
porch in season.

The construction work follows the general trend for this type of house. Framing and exterior surface materials are of wood. Foundation walls are of concrete blocks. Walls above and ceilings are plastered. Heating may be forced warm air or hot water. The inside finish, the decorations, and floors are all in keeping with the general character of the exterior. This house may be placed on a 65 foot lot, with all services toward the front. The rear of the lot would then be available for outdoor living.

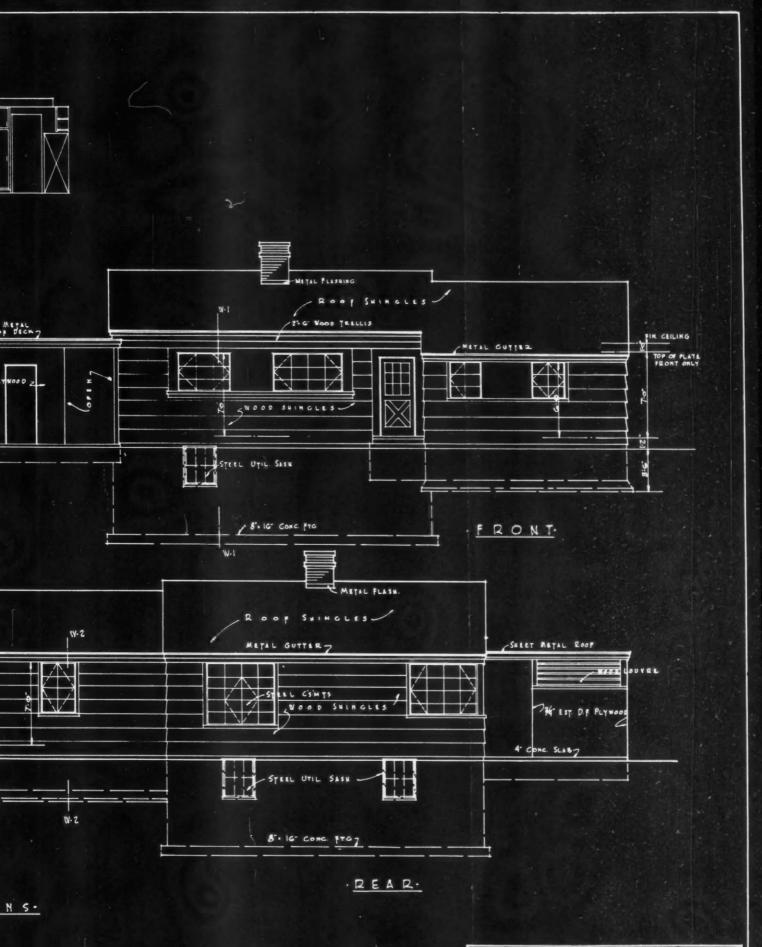
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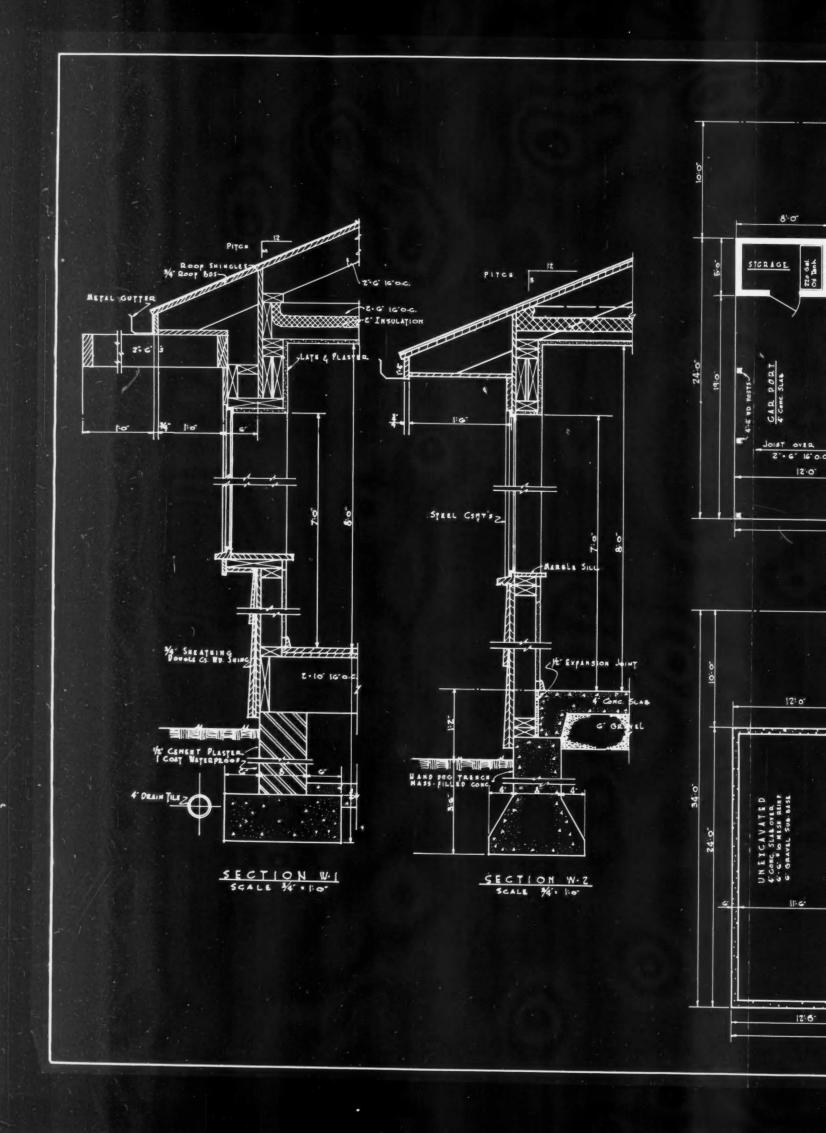


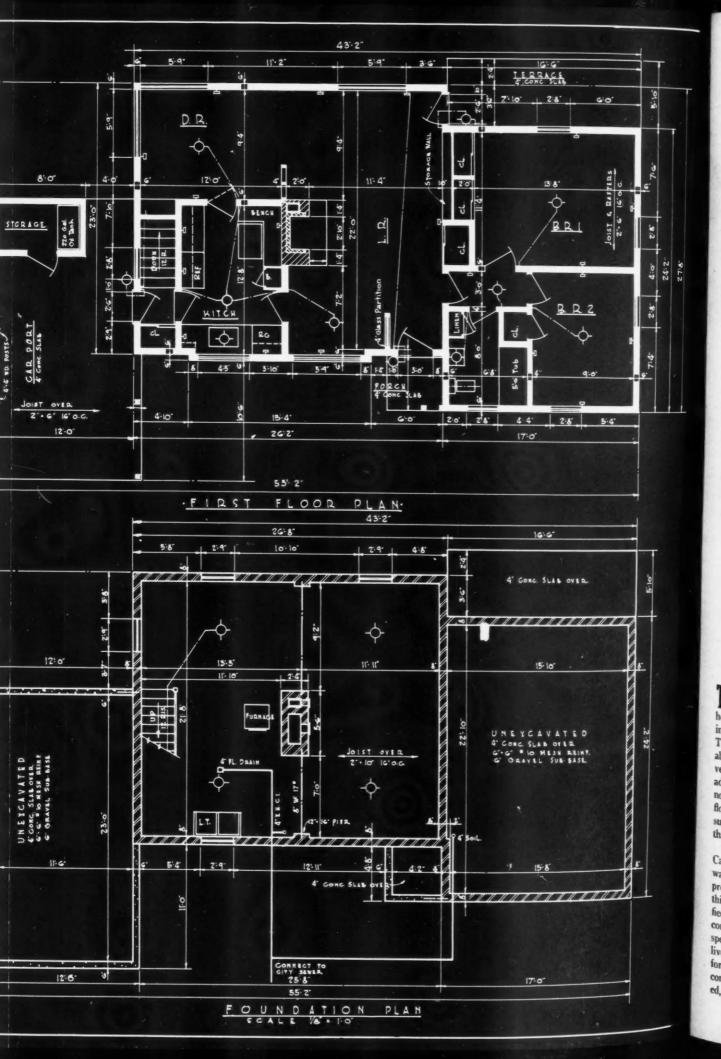
DESIGN No. AB 130

AMERICAN BUILDER BLUE PRINT SERIES

Designed By
WALTER T. ANICKA.
Ann Arbor,
Michigan.

Simmons Boardman Pub. Corp. 105 W. Adams St., Chicago, Ill.





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COST savings are obtained with flat roof construction

Doing Something— About Low-Cost Houses

The problem of building good quality houses to sell \$1,200 to \$1,500 under market prices is a big one, met by this builder

EARL W. SMITH, Alameda County, California, builder

THE big problem before home builders the country over is to build homes today which people in the low income groups can afford to buy. There was a great deal of discussion about this topic at the NAHB convention in Chicago—some builders advocated one-bedroom houses, with no garage, with painted concrete floors. The only trouble with this suggestion is that people don't want that type of home.

Earl Smith of Alameda County, Calif., is one of the builders who was seriously concerned about the problem, and who decided to do something about it. But he wasn't satisfied to build houses which could be considered substandard in any respect. He was determined to deliver houses large enough for comfortable living for average families, completely finished, beautifully painted, with garage and fireplace, on

good-sized lots with all improvements.

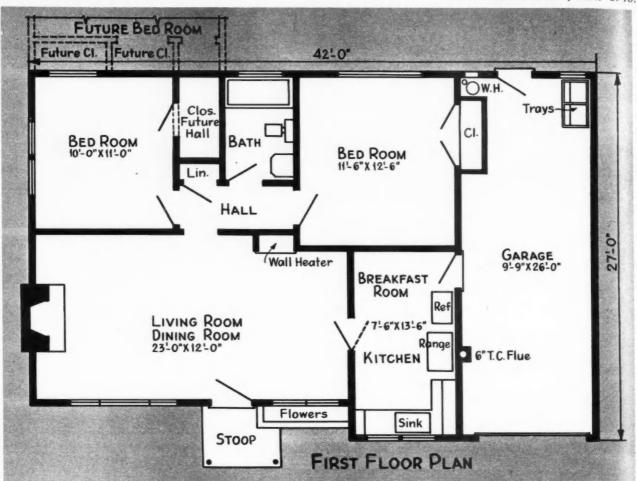
Smith, since the convention, has completed 10 such houses which sold like hot-cakes. He is now close to completion on 12 more which were sold while under construction and within two hours of the time a small advertisement appeared in the local paper. He has plans for 64 more houses in his present tract with hundreds of applicants for them, although he refuses to take any deposits on homes not started.

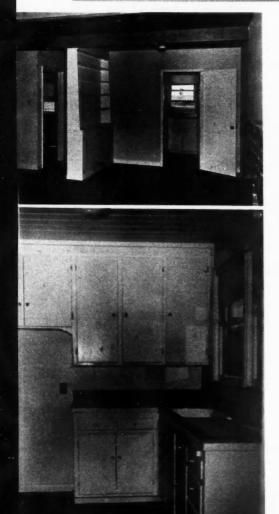
The public is always quick to recognize sound values. The reason why Smith's homes sell so fast is that he delivers a lot of house for \$7,300, including the fully improved lot. It is a quality house throughout, and one for which no family will have to apologize; a house which will require a minimum of upkeep; a house which can be expanded as the family grows and needs more room.

How does he do it? How does he build a good house to sell at \$1,200 to \$1,500 under the market for houses of comparable size? The answer lies mainly in the design of the house. The conventional house with a shed roof is wasteful of materials and labor. Smith knew a substantial saving could be effected by building houses with flat roofs. Furthermore, he wanted to use dry wall construction and to build on slabs.

In order to find out what public reaction would be, Smith built the first ten. He found that people were enthusiastic about the houses. They bought them not only because they represented the best values, but because they liked the modern touch. He found it is particularly popular with the young people—and, of course, most of the potential buyers in the low income group are young people.

The big problem was in the financ-





ing. The local FHA authorities liked the general construction but were doubtful about the flat roofs. However, after the authorities saw how the first ten went and got the reactions of the buyers, FHA made a commitment on the 64 which are being started now. The American Trust Co. is furnishing the money. The houses also are approved for VA loans.

The two-bedroom house which sells for \$7,300 has 890 square feet of floor space, including the corner of the garage used for laundry equipment. In addition, there is a 10x20 foot garage. The lots are 52x100 feet. Sewers, streets and sidewalks are included, as well as concrete driveways and walks for every house. Double trays for the laundry are provided in each garage.

The houses are framed in the usual way; the exteriors are Redwood lap siding 8 to 12 inches wide; the interior plaster board. Each house has a fireplace, an item which most builders of low-cost houses omit but an

FLOOR PLAN above is of a house built by Smith. Typical living room, top left, has brick fireplace; kitchen, lower left, has ample cupboard space item which most buyers want. Each house has some brick work, used either in flower boxes or decoratively. A wide overhang always improves the appearance of a flat roofed house; the overhangs on these houses are 30 inches in front and 24 inches on the sides and back. The combination roof and ceiling which Smith developed, offers one-third more insulation than the conventional pitched roof and plastered ceiling.

The living room of this low-cost house is impressive because of its size, attractive fireplace and beamed ceiling with stained boards. The beams are 5x8 inch. The boards are 2-inch select Douglas Fir T & G from 6 to 10 inches wide. The wide box windows have casement sash and are provided with Rollaway screens. The concrete floors in all rooms are covered with asphalt tile.

The kitchen is well-planned. All working spaces, including the range and the refrigerator, are contiguous. There is plenty of cabinet space. The sink drainboard and backsplash are ceramic tile. The kitchen is so planned that there is plenty of room for a table and chairs.

The master bedroom will easily accommodate twin beds. Both bedrooms

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LONG sweeping lines, low fireplace chimney give these low-cost homes charm

have roomy closets; there is a large linen closet in the hall. On some models, the closet in the master bedroom can be made into a hall at a later date, if the owner desires to add a room to the house.

There are several construction features in these houses worthy of note. All bearings walls have footings supporting them; the concrete slab is poured over the footings. Two sheets of 15-inch felt are mopped over the fill before the concrete slab is poured, so there will be no danger of water coming up through the floor. The roof is insulated by the application of ½-inch Celotex over the boards, 4 sheets of 15 pound felt are applied over that and gravel on top of the

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roofing. The roof is crowned 1/8 inch to prevent puddles from forming and leader pipes take the water to the downspouts.

Low-priced land is of course a necessity to low-cost housing. Smith's lots are valued at \$900 which, considering the cost of installing improvements, is very low. The subdivision is in Contra Costa County.

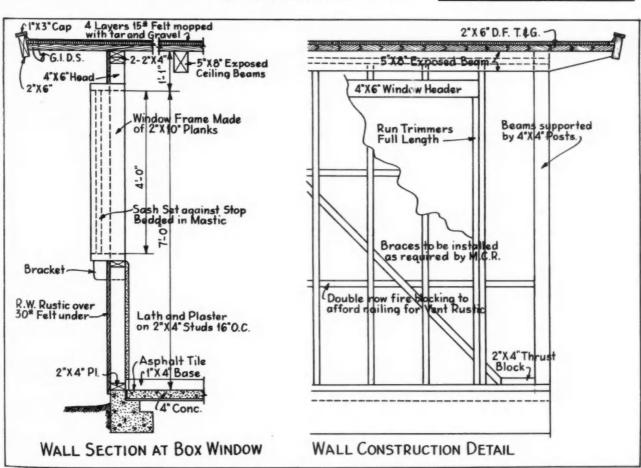
Earl Smith is chairman of the Home Builders Council of California and also president of the Associated Home Builders of Alameda County. One of his biggest satisfactions in connection with this project is that he has demonstrated the public will not fight shy of houses which are new in design, if they represent sound values.

MATERIALS USED IN LOW-COST HOUSES

USG Sheetrock

USG Textolite
Kaiser plaster board
Armstrong asphalt tile
Kohler & Kohler plumbing fixtures
Standard Sanitary plumbing fixtures
Schlage locks
Rollaway screens
Celotex insulating board
Hammel Duel furnaces
Tyleboard

Nutone door chimes





Builder Fabricates Millwork with Aid of

FIRM of Cincinnati builders is A satisfied that a shop, well equipped with power tools, is a good investment for the operative builder. Lang Brothers, in that city, not only maintains a permanent shop for turning out millwork items, but has a large investment in powered field equipment as well.

When the material supply picture is normal so that quantity purchases can be made, Myron Terrell, who manages the shop operation for the Lang Brothers firm, estimates there will be a substantial saving in the cost of millwork items, including installation costs. While materials were in short supply, the shop did not result in actual savings over what it would have cost to buy items and do other operations at the job site. However, it did enable Lang Brothers to keep items ahead so there were fewer construction delays.

The fitting of doors is reduced to a science. There is no cutting or fitting at the job to make a door fit the frame because the frames are built around the doors in the shop. Door and frame are shipped and installed as a unit. Even the painting is done in the shop spray booth.

Stairs are done in the same manner. risers painted and treads stained or varnished, according to the finish desired. Fireplace mantels, built-in bookshelves, colonial corner china cabinets and similar items are all completely fabricated in the shop and



MYRON TERRELL, secretary of Lang Brothers, handles operations described

POWER EQUIPMENT USED BY LANG BROTHERS

SHOP EQUIPMENT

- 1 Parks 24-inch electric planer
- Parks 24-inch drum sander
- Parks combination woodworker
- 2 Walker-Turner radial saws
- 2 Stanley-Carter hand routers, 1 H.P.
- 2 Sterling No. 1000 electric hand sanders
- 2 Porter Cable belt hand sanders 2 Craftsman tilting arbor saws
- Beach power feed rip saw, 15 H.P.
 Beach shaper, 5 H.P.
 Black & Decker electric drills
 Thor electric bench grinder

- Arco air screw driver DeVilbiss spray outfit with two guns and pressure material tanks,
 H.P. Wayne compressor
 acetylene welding and cutting out-

- arquette electric welding outfit 1 Black & Decker electric hammer

FIELD EQUIPMENT

- 5 Speedmatic K-88 electric hand saws
- 2 Stanley-Carter electric routers
- Carter electric plane
- Carter lock mortise machine Rex 11-S concrete mixer
- C. M. C. 11-S concrete mixer C. M. C. 7-S concrete mixer
- International TD-14 bull dozer International TD-9 bull dozer
- Allis Chalmers H.D.-5 loader and
- Cletrac H. G. loader Hough model H.A. loader on rubber
- Jaeger mortar mixer Bros sheepsfoot roller

- Bucyrus-Erie G-44 scraper Bucyrus-Erie S-67 scraper White WA-14 dump trucks White WA-14 platform truck
- 1 Ford dump truck

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are job bas and Permanent shop and good field equipment enable Lang Brothers to manufacture and install stairs, doors and frames, mantels and cupboards as units

FITTING hinges to a door with an air screwdriver is shown at left. Note that jamb is already made and hinges attached. Workman at right is "backing out" baseboard in the shop on a jointer, eliminating the hand work usually done by the carpenter on the job

Power Tools

painted, ready to install. This method cuts installation time to a minimum.

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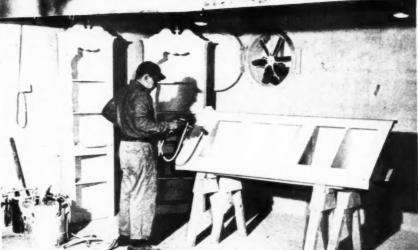
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Some simple shortcuts have been worked out. For example, all bridging used between joists is mitred and cut to length in the shop. Bundles of it are kept on hand, well ahead of the job demands.

Another operation that saves a lot of hand work is the "backing out" of baseboards. Normally, the carpenter does this on the job with a hand plane, and it is a laborious and tiresome task. A workman in the shop can run the stock through a jointer in seconds. Terrell states that the carpenters like the pre-cut bridging and baseboard because it makes their work less tir-

The Lang Brothers firm has been an operative builder in the Greater Cincinnati area for a number of years. Normally, it builds single-family detached homes, although last year it built a series of four-family multiples. Currently, it is constructing single-family brick homes in three new subdivisions, one of which will have 100 homes. It also is completing development of a 54-home and 76-home subdivision begun last year. The organization builds homes in the middle price bracket, ranging from \$12,500 to above \$16,000.





STAIRS, fireplace mantels, cupboards and the like are spray-painted in the shop



PORTION of shop, showing mantels and built-in bookshelves in process of manufacture

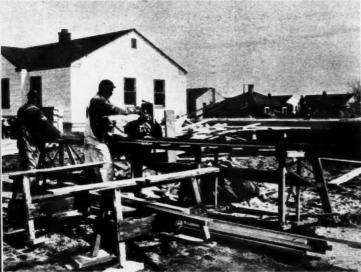
A FEW of the partially completed three-bedroom economy houses in one of the projects of H & L Builders

NUMEROUS ideas have been advanced on board achieve the maximum in small homes for low-income groups. Some of these ideas are good and assist in lowering costs without jeopardizing the quality of the finished product. Others suggest methods bordering on jerry building. All such moves to lower costs depend for their effectiveness on the initiative, enterprise and managerial ability of the builder to adapt them to proper use at the right time. All the short cuts ever suggested will accomplish nothing toward lowering costs unless the home building operation is properly managed and expedited to hold management and labor costs to a minimum.

Charles Hamburger and E. L. Lieberman of H & L Builders, Detroit,

Mich., have utilized many cost-cutting techniques along with good management to produce three-bedroom houses on lots averaging 50x150 feet for \$8,990. One of the principal criticisms of low-cost housing is usually centered around the fact that lots are too small. H & L Builders determined to avoid that criticism of its operations. It is not always simple to find low priced land for low-cost houses and in many instances when it is found the lots are platted too narrow to conform to accepted standards. In one instance this firm bought a plot of ground containing 400 lots which were too narrow to take the houses and still leave ample ground area on each side. The ground was replatted into 250 lots averaging 50 feet in width.

Crews on this job are organized and trained to do one operation. Men are trained for efficiency and encouraged in their work. Assurance of steady employment plus the fact each crew has a definite job to do and can recognize accomplishments in relation to other crews tends to build good morale and loyalty. Lieberman cites the example of his carpenters as to what can be done with such managerial tactics. While many builders are complaining because carpenters and other building tradesmen are not producing a full day's work, Lieberman states emphatically that carpenters on this project are definitely giving a full day's work-for which he is deeply appreciative. This is not accomplished without attention from the "office". Men are not only assured



ENOUGH material to keep 14 men and four apprentices busy is cut on the job site with this large radial arm saw



FRAMING for openings is assembled and delivered to framing crew which nails up wall sections on the boxed foundations

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Keeps Costs Down on This Project

Three-bedroom houses with full basements being completed by this builder to sell for \$8,-990 on 50-foot lots in high-cost Detroit area



of all materials they require, but are also given adequate tools, plus good direction. Every possible contingency is anticipated. An extra motor for the radial saw is kept on the job site at all times to make certain no time will be lost in case the motor on the saw should suddenly break down.

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After basements are excavated foundation crews move in with six sets of forms. Form setting, pouring, removing forms and resetting them thus become a continuous operation. Just recently the firm built six new sets of forms using a plastic coated plywood. These forms further accelerate the foundation setting operation. Despite the fact that each set of forms cost about \$1,000, the firm realizes a definite saving, not only because the work can be done faster, but because these forms can be used more often than the conventional forms.

After foundations are set another crew moves in and boxes them to make ready for erection of the precut framing. One radial saw cuts enough material to keep 14 men and four apprentices busy framing. With this system these men will frame five houses every five days including erection of roof trusses, application of sheathing and roof boards. This part of the operation is also divided among special crews. Two men are busy making trusses for one house each day. Four men set trusses, put on drip caps, set window and door frames for a house a day.

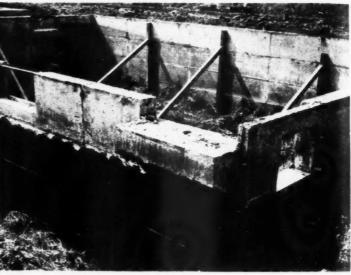
In addition to the large radial saw used on the site, crews also use six powered hand saws—two small and four large models. All the frame openings are preassembled and turned over to the framing crew which assembles its work on the boxed foun-





CARPENTER crews are split up into several separate units. Top photo shows crew finishing up foundation boxing job. Framing crew is busy assembling wall sections in center photo. Bottom house is tramed and sheathed, ready for erection of trusses





REAR steps for these houses are poured as part of foundation. Photo at left shows form. At right is finished step

dation. Stair stringers are cut on the radial saw—fourteen sets at a time. A small shop is operated to manufacture door jambs, trim and much of the other precision and finish material required in the houses. Many of the kitchen cabinets are made right on the job, and a few are purchased from manufacturers.

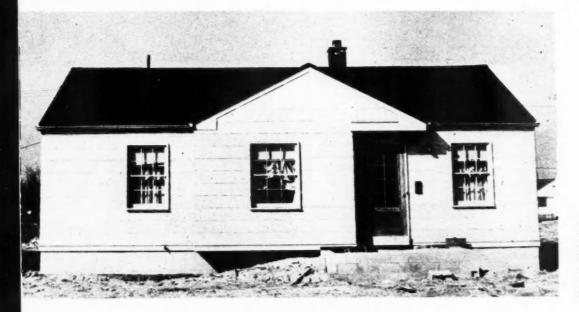
Although one basic floor plan is used for all the houses, interior walls may be moved about to vary the arrangement because roof truss construction eliminates the need for load-bearing partitions. Short cuts in time and costs on these houses start when the foundations are poured. Steel basement sash are inserted in the forms and when pouring is completed they are all set. The rear step is also poured as part of the foundation.

Exterior walls are covered with either bevel wood siding or asbestos cement shingles. Asphalt shingles are used on the roofs. Ceilings are insulated. Floors are hardwood except in kitchens and bathrooms. Linoleum is used in the kitchens. Bathroom floors are tiled. Tile is also used around the bathtubs, showers and base. Interior wall and ceiling finish is gypsum board, painted. The gypsum board is applied with 1½-inch blueheaded nails and joints are unusually well and smoothly finished.

Although these three-bedroom houses do not have dining rooms, ample kitchen area permits dining there. Each bedroom has a good-sized clothes closet and in addition there is a clothes closet and linen cabinet in the main hallway. The basement is planned with the chimney, furnace, laundry tubs, hot water heater and fruit storage closet all on one side, leaving the other half available as storage space, workshop area, or recreation room. Each H & L house

is easily identifiable because of the cut stone front steps. Lieberman states that these steps, set on a firm footing, are cheaper to buy and install than to construct forms and pour concrete steps. The rear steps, however, are poured concrete.

After being in the home building business for 30 years, Lieberman states he has learned that only with careful management and good planning can efficiency on the job be achieved. A steady pace in production is paramount with this firm. Last winter, despite extremely unfavorable weather, work on this project proceeded when at all possible. Concrete foundations were poured all winter and no sacrifice in quality was noted. It took about \$5,100 worth of straw, however, to protect the newly-poured foundations from the winter weather. All the planning and work to keep crews going is of course motivated



ASBESTOS cement shingles are used for exterior covering on most of the H & L houses. Foundations, which enclose a full basement, are reinforced poured concrete

exterior presided truss removes bearing

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EXTERIOR elevations are varied. Although one basic plan is used, interior partitions can be shifted about because truss roof construction removes need for load-bearing walls inside

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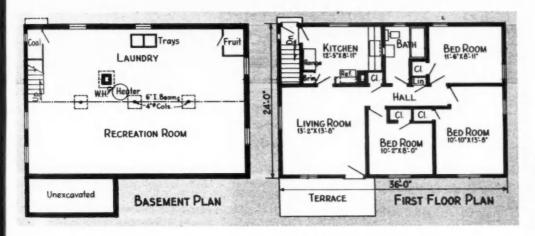
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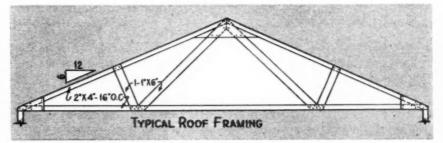


BASIC plan reveals large basement area for workshop or recreation room. Kitchen is large enough to provide limited dining area for the ordinary family

by a desire to hold costs down so these houses can be sold at a profit for \$8,990.

Evidence that the houses are in demand at that price and considered good purchases is the fact that several individuals who bought houses from H & L Builders, have resold them at substantial profits after living in them only a few months. This discourages Hamburger and Lieberman in their work to hold costs down, but they will not deviate from their rigid policy of working constantly to improve the operation and effect further economies for purchasers in the low cost bracket.

Currently the firm is completing 166 houses in two separate projects—77 in one and 89 in the other. Plans are already made and materials being assembled to proceed without delay in another development of several hundred of these \$8,990 houses. Quantity purchases for H & L jobs also effect some economies. Hardware and similar items are bought for 60 houses at a time and stored in orderly fashion so there is no delay or confusion in locating materials required promptly on the building site.

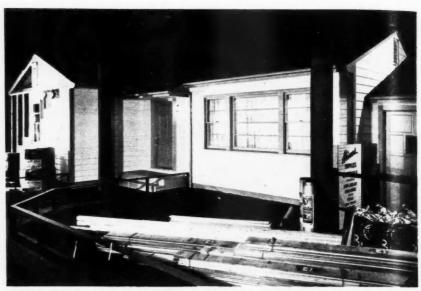


THIS simple truss is strong enough to stand any load requirements of FHA or building codes. Two men assemble α set of trusses for α house each day. Four men erect the roof trusses, put on drip caps, set window and door frames on one house each day

ANOTHER variation of the H & L house. Lots for these houses average 50 feet in width



Lumber Dealer Demonstrates



EXTERIOR walls of house were beveled-cedar siding painted white. Gutters were wood

To foster public acceptance and create demand for modular-planned homes, the Edward Hines Lumber Co. erected a full scale model at Chicago Home Show

Home Builders' Show was the model Industry Engineered House built and exhibited by the Edward Hines Lumber Co. of Chicago. The house was erected to demonstrate to the public the practicability of using standard or modular parts in home building. During peak attendance periods, it was viewed by as many as 800 persons an hour. It aroused sufficient community interest to draw favorable editorial comment from the Chicago Tribune.

The greatest number of queries

FLUTED architrave member frames the door, enhances attractiveness of entrance, adds Cape Cod touch. Knocker embellishes door

The greatest number of queries were from individual property owners, many of whom registered with the Hines Co. as definite prospects for engineered homes. By bringing the prospective owner and the builder together, the Hines Co. hopes to get many of these houses under construction in the Chicago area; thereby helping to promote the Engineered House program being sponsored jointly by the Producers' Council and the National Retail Lumber Dealers Ass'n.

The house was but part of a huge exhibit designed to educate the public to the principles of standardized building methods and materials. A panorama of posters, written in layman's language, explained the use of the module as standard measurement. Miniature models showed the symmetry of a house so constructed. A series of renderings illustrated various exteriors possible with the small floor plan from which the Home Show house was built. Modular materials and millwork used in the structure were displayed.

The visitor passed these units of the exhibit before entering the house. In the house, he received further education on construction methods and material standards advocated for engineered homes. Bedroom floors were only partially completed so joists and sub-floor-

ing could be exposed. Bedroom walls were incomplete to show the application of wallboard and insulation. The balance of the house was finished and decorated, offering suggestions on interior treatment seldom found in small homes. The use of a stained-larch wall in contrast with plain walls in the living room, and of a lively wall paper in the reception hall created an interesting decor, giving the house an air of distinction and individuality. Millwork, birchfinished kitchen cabinets and hollow core birch interior doors, finished in natural stain, were other features which added richness and warmth to this house of standardized parts. Interior wall surfaces were of U.S.G. Sheetrock except in the kitchen and bathroom where Marlite wall panels were applied.

Since the house exhibited was



VISITORS learn Engineered House is result of research by 36 building groups;

that building materials whose dimensions are multiples of 4 inches are modular;

that use of modular standard lengths of lumber saves cutting time and waste;

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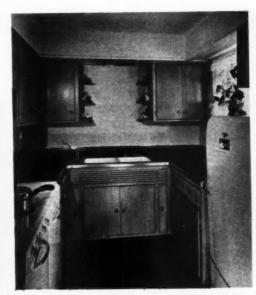
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Industry Engineered House to the Public





BEAUTY of mantel and stained-larch wall in living room and of the birch-finished kitchen cabinets drew approval of visitors

basementless, the forced warm air heating unit was concealed in a specially built closet. Space for laundry equipment and for storage was provided by increasing the depth of the garage. On the outside beveled. cedar siding was applied in short lengths to exhibit the building paper, sheathing, and studs which comprised the exterior wall.

"The objective of this entire display is to get engineered houses under construction in the community," Philip Creden, advertising manager of the Hines Co., said. "After we get several units under way, we will publicize where the houses are to be built and by whom.

"This whole house is on construction methods," he continued. "The next step is more research and improvements among materials manufacturers. To better construct engineered modular houses, we need a job of research on materials, especially from the lumber

INCOMPLETE bedrooms show construction methods house was fabricated



for Edward Hines Lumber Co. supervised construction of the exhibit house



that additional savings accrue through use of roof trusses, partition walls;



that U.S.G. Sheetrock and Marlite wall panels are made to modular measure;



that Hines modular millwork offers quality in workmanship and materials



Cut Model Home **Building Cost**

SLOPING roof and one wall of glass give exterior modern aspect

SIGNIFICANT departures from the conventional were effectively used by a Milwaukee architect, Edmund I. Schrang, in his unique design for the 1948 model home of the Milwaukee Board of Realtors' recently-staged annual home show event. Among the unusual features worked into the compact, but well-arranged five-room plan were several to enhance functional utility. While some of these were not brand new-all were directed toward greater emphasis on maximum utilization of available space, with minimum increase in cost.

Departure from the traditional in the Schrang design begins with the exterior, as a study of the accompanying sketch reveals. The roof slopes. There are no gables. One wall is entirely of glass. There is an enclosed outdoor-living space in addition to the regular living room. The master bedroom is quadrangular in shape; so is the bathroom.

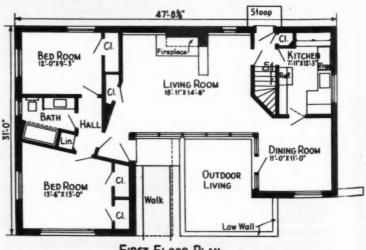
The overall size of the house-47 feet, 8 inches by 31 feet-permits a reasonable spaciousness in the rooms. Some of the dimensions give an indication of the roominess built into the house. The dimensions are: Living room-nearly 19 feet by 14 feet, 6 inches, partially separated in the middle by a block wall at right angle to one end of the fireplace; master bedroom-13 feet, 6 inches by 13 feet; second bedroom-12 feet by 9 feet, 3 inches; dining room-11 feet square.

An apparent trend in Milwaukee toward separate dining room space is emphasized in this design with one wall, largely of glass, facing the enclosed outdoor living space.

The interior living room is so situated that, for the most part, it cannot be viewed from the street, although one wall is also entirely of glass-representing an unusual example of special window treatment. Noteworthy is the fact that of the 356 square feet of wall area in the living room, 174 square feet are glass. This is the entire east wall which is one huge window measuring 17x10 feet. By comparison, in the average home, it was pointed out, the window area in the living room would usually be no more than about 40 square feet. The glass wall in the living room, like its counterpart in the dining room, faces the outdoor living space, where privacy is secured by the high outer wall.

wall which brings the exterior motif into the room. Entry into the living room from the outside is made either through the vestibule off the front

The opposite wall of the living room, forming the rear wall of the house, has a fireplace and masonry



FIRST FLOOR PLAN

Milw depo achi omie

entrance, rear entr In the room is with ade age. By was not i added to ried place ing the oration, 1 mentione Schrang adds gen itself fol The exte are of 1 block. 12x18x2 was app the block The glas one and are made cessfully Navy lif

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Milwaukee architect departs from traditional construction to achieve notable economies in model home

entrance, or from a small hall off the rear entrance to the home.

In the quadrangular-shaped bathroom is a washstand-dressing table with adequate drawer space for storage. By slanting the wall, space that was not needed in the bathroom, was added to the bedroom, permitting varied placement of furniture and opening the possibilities of interior decoration, like the built-in dressing table mentioned above. Further, Architect Schrang explained, "the angled wall adds general interest, since the ceiling itself follows the sloping roof line. The exterior wall of the model house are of precast lightweight concrete block. Insulation, in the form of 12x18x2-inch cellulated glass blocks, was applied directly to the inside of the block wall with asphaltic cement. The glass blocks weigh approximately one and two-thirds pounds each, and are made of the same material so successfully used during the war to keep Navy life rafts and Coast Guard antisubmarine nets afloat.

An asphaltic composition plaster was applied directly to the insulation, eliminating the necessity of furring and lathing to provide a paster base. In the final stage, a finished gypsum plaster coat was applied, providing a hard, paintable surface. Home builder Roland J. Teske, who supervised the construction for the Milwaukee Builders' Association, builders of the model home, estimates that the use of



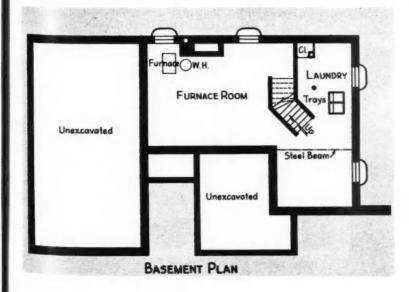
FIREPLACE and masonry wall bring the exterior motif into the interior living room

this type of wall construction saved about \$300 in the cost, as contrasted with the conventional exterior material, sheathing, studs, insulation and plaster, although the glass block insulation itself is more expensive. Two other interesting structural details are the floor construction and treatment of unexcavated portions beneath the floors. The concrete subfloor is of precast block units in plank form, 6 inches thick and 6 inches wide. A concrete topping of one-and-a-half inches thick was poured over these planks. Aside from the advantage of fireproof construction of this type of floor, it can be put into place quickly, thus eliminating the longer period required to prepare and nail rough flooring. Carpeting in the living room, dining room, bedrooms and hall areas was laid over the concrete finish of the floors.

The unexcavated portion of the basement, 31 feet by 17 feet, 9 inches,

lies roughly beneath the bedroom wing of the house. Special treatment was designed to avoid the possibility of dust and dampness by covering the ground with 4 inches of washed gravel, leaving a space of approximately one foot between the gravel and the floor proper. The entire surface was then dusted with unslaked lime, and sprinkled with water. After 24 hours, the entire surface was dusted with two bags of cement and again sprinkled with water.

The model home cost about \$15,000, including the lot, according to the builders' estimates. Through the economies in design and use of materials, it was estimated that a saving of \$2,725 was achieved over the cost of a similar-size house of completely conventional design. A breakdown of these estimated savings is of interest in view of efforts made these days to bring down building costs. This is how it was done: \$850 by use of a pitched roof design, eliminating the need for two gables which the roof of a typical house of the same size usually requires; \$135 in roofing materials and labor because a lesser roof area had to be covered with the pitched-design; \$200 in lumber costs and \$300 in labor by eliminating roof rafters and ceiling joists-again because of the pitched roof; \$290 by using the precast concrete "plank" filler instead of conventional hardwood flooring (It was figured that the wood floor would cost about \$330 more, but there was an added \$40 in topping the concrete floor with padding.); \$350 by using precast concrete block wall construction, instead of frame; and \$210 in lumber and \$390 in labor by using fewer joists because of the design.



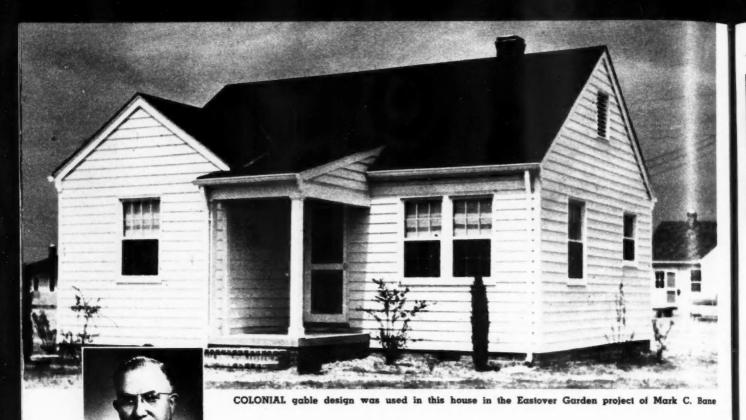
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MARK C. BANE

"It's Just as Easy to Build A Good Small House"

6WOU can build a good small house just as easily as you can build a good large one."

Mark C. Bane, Richmond, Va., has often made this statement. Bane's developments prove that he follows that statement closely.

In his current Eastover Gardens' 150-house project, he is providing two - bedroom, five - room houses for \$6,950 plus closing costs. With an \$850 down payment, it is possible to keep the monthly charge for the houses at \$40, including interest, principal, insurance and taxes.

Although Bane is an operative builder, he classes himself among the smaller builders. Eastover Gardens is a 150-house project, but it will probably take three years to complete it. There are 97 houses now under construction; 27 are nearly finished.

The ability to turn out a welltailored small house at less than \$7,000 is not due to mass-production fabrication methods at Eastover Gardens. It is due to careful planning, canny buying, a sound knowledge of the community and its growth trends.

Bane marked the industrial expansion that was taking place in Richmond-foresaw a market for low-cost homes in the eastern section of the city, and acquired a large tract of relatively level land suitable for development.

A number of things in Bane's development show extra value to the prospective buyer. For example, he uses two more vards of concrete than

required in the specifications for footings. He uses 6x6-inch sills where it is permissible to use 4x6's. Floors are either clear or select, although the specifications call for common. The houses not only have copper plumbing throughout, but copper piping is used to connect the house with the mains.

All doors and windows are metal weatherstripped. The ceilings are insulated with 4 inches of mineral wool. Gutters and leaders are of galvanized sheet metal.

Interiors of Eastover Gardens' houses have well-finished millwork and cabinet work. Interior woodwork and trim receives three full coats of paint. Floors are smoothly sanded and filled. The exteriors, too, receive three full coats of paint in Bane's project.



L-SHAPED design with the L section facing back of lot



HIP ROOF removes chance for monotony in development

Rane als in paving Fastover

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Anv forestall elevation large no this pri gable ro design i Rising Bane to tional us several the ear

Footi with br houses a beneath ness. T teriors



NEWLY completed \$6,950 houses at Eastover Gardens are on large lots; houses are well-spaced

Careful planning enables builder to sell five-room units for less than \$7,000

Bane also uses two tons of flagstone, in paving the approaches to homes in Eastover Gardens. These will add to the attractiveness when lawns have been developed.

Lots are good sized, ranging from a minimum of 60x130 feet to a maximum of 68x150 feet. The houses are set well back from the street and building lines are staggered to break up the groupings.

The same floor plan is used in all the houses—an L-shaped plan which Bane has used for several years. At present, he is studying a way to revise the plans to permit the addition of a linen closet and coat closet.

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Any monotony in appearance is forestalled by the use of ten different elevations and exterior changes—a large number for a development in this price range. Most houses have gable roofs, but there is one hip-roof design included for further variation. Rising material costs have caused Bane to suspend construction of additional units of the hip-roof design, but several already have been finished in the earlier development.

Footings are of poured concrete, with brick foundations to raise the houses above ground elevation. Grills in the foundation ventilate the space beneath the houses to prevent dampness. There are no basements. Exteriors are of weather boarding.

red cedar shingles, asbestos shingles or combinations of these materials. Roofing is 210 - pound asphalt shingles.

The first group of 27 houses, nearly completed, have plastered walls, but dry wall construction is being used in the second group. Walls are papered, as are the ceilings. Bane has had the inside of closets papered to match the wall paper in the bedrooms. This has proved an attractive feature.

Heat for each house is provided by oil-burning furnaces. An automatic oil-burning water heater is provided in each kitchen.

Although small, the kitchens are well-arranged and fully equipped with custom-built cabinets, a cabinet sink, electric range and refrigerator.

Bathrooms are attractively finished with plastic - surfaced wall panels and chromium accessories. Bathroom floors are linoleum.

Bane is well known among builders nationally, as well as in Richmond, because of his activity in the National Association of Home Builders. He is at present the national director from the Richmond association, having served since 1946. His interest in the Richmond association and NAHB is just as intense as his interest in the homes he is building to meet the demand for economy housing with a high quality product.



PLAN A shows how every inch is utilized



PLAN B is a variation of plan A. Compact and efficient arrangements were used in project's kitchens and bathrooms

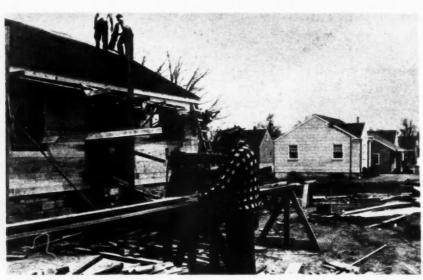


ANOTHER exterior variation with L section to the front

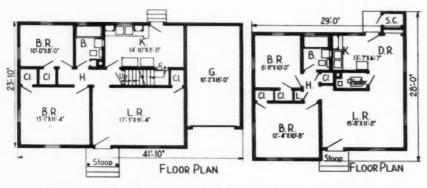
MATERIALS AND EQUIPMENT USED AT EASTOVER GARDENS

Johns-Manville asphalt shingles
U. S. Gypsum Co. Sheetrock (in dry-wall construction)
Rockwool or Gold Bond insulation
Standard Sanitary bathroom fixtures
Marlite wall panels in bathrooms
Coleman automatic oil-burning floor furnace
Coleman automatic oil-burning hot water heater
Frigidaire electric range
Frigidaire electric refrigerator

Setting the Pace in a High Cost Area with Economy Houses



BUILDER does precutting on the site with this DeWalt radial saw. Lumber is delivered in "upside down load" described in the February issue of American Builder. Saw is set up between two loads and is moved for each two houses



FLOOR plans of two houses in Interstate Housing Corp. project illustrate compact arrangement. Plan of house with garage, left; without garage, right



SOUNDLY constructed two-bedroom houses are being built by Interstate Housing Corp., South Bound Brook, N. J., for \$7,650.

Fully insulated, with automatic heat, the houses are located in the Alvin Manor subdivision about 35 miles from New York City, close to industrial areas surrounding Jersey City and Newark.

The units are small, but Peter J. Longarzo, the builder and vice president of Interstate Housing Corp., has worked out a design that efficiently utilizes the living space available. Longarzo is a registered architect, as well as a builder.

Alvin Manor was started in 1947, and 73 homes were finished last year in a slightly higher price range. In 1948, a new design was prepared and construction started on a smaller house to meet the demand for low-cost homes without "stripping" the houses of too many of the modern features that today's home buyer desires. From 60 to 70 houses will be finished in the project this year.

The \$7,650 basic house has no basement or garage. It does have two bedrooms, comfortably - sized living room with adjacent dining area convenient to the kitchen. Outside dimensions are 24x29 feet. A base-

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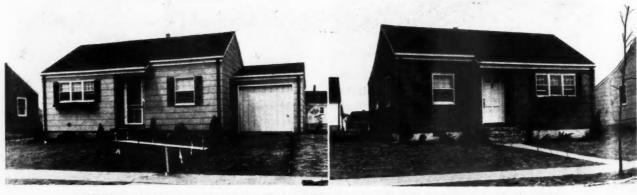
and sanit Earlier started a \$9,600. T and, in a ond floor can be comediumuring ab

Constr terials a price ran tions are waterprosheathing gles for asphalt a mineral is used i houses h

Interior wall con are pain kitchen metal til

Johns shi Johns Johns Shi Super Welli Stand tur U.S.

Skils



HOUSE with basement and garage sells for \$9.050; house, right, without basement sells for \$7.650



MOST of these low-cost units on 55-foot lots sell for \$8,350

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The subdivision is laid out with curvilinear streets. Exterior treatment is varied to avoid monotony often characteristic of low-cost developments. Individual lots are 55x110 feet. Roadways are 30 feet wide, paved and curbed. Sidewalks, storm and sanitary sewers are provided.

Earlier homes in Alvin Manor started at \$8,750 and ranged up to \$9,600. They also have two bedrooms, and, in addition, have unfinished second floors where another room or two can be completed at a later date. The medium-priced house is larger, measuring about 31x24 feet.

Construction details and the materials and equipment used in both price ranges are the same. Foundations are of cinder block masonry, waterproofed. Sidewalls have wood sheathing and asbestos cement shingles for exterior finish. Roofing is asphalt strip shingle. Two inches of mineral wool, semi-blanket insulation is used in sidewalls and ceilings. The houses have oak floors.

Interior walls and ceilings are drywall construction, papered. Ceilings are painted. Linoleum is used on the kitchen and bathroom floors with metal tile on bathroom walls. Heat is furnished by automatic, gas-fired, forced warm air furnaces. Copper tubing is used for interior plumbing, and copper service piping connects the houses with the mains.

Kitchen cabinets are built on the job and are carefully finished. Some of the houses have built-in china closets, also built on the job. The kitchen is equipped with cabinet sink and gas range. Hot water heater is automatic, gas-fired, 20-gallon capacity.

Longarzo relies on power equipment to help keep construction costs down. He also uses a time-saving system to handle lumber on the job. His materials suppliers deliver loads so arranged that they can be used from the top of the pile down through to the bottom without sorting.

This method of "upside down loading" was described in the February issue of American Builder. This story discussed the operations of the Nettleton Timber Co., whom Longarzo patronizes.

Materials are ordered for two houses at a time, with the loads delivered close to both foundations. A portable radial saw is set up so framing can be cut on the job for both houses. When the two houses are finished, the saw is moved to the site of





ANOTHER model in the Alvin Manor subdivision. This house sells for \$8.750

the next houses under construction.

Construction crews move from house to house as required so that work is provided continuously for the various crews. Rapid construction and avoidance of costly delays aid Longarzo in keeping the sales price low on Alvin Manor homes.

MATERIALS AND EQUIPMENT USED AT ALVIN MANOR

Johns-Manville asphalt strip shingles Johns-Manville batt insulation Johns-Manville asbestos cement shingles Superfex gas-fired furnace Wellbilt gas range Standard Sanitary bathroom fixtures U.S. Gypsum Sheetrock, recessed edge Rheem hot water heater

DeWalt radial arm saw Skilsaw powered handsaws

HOUSE at left sells for \$9,600. House, adjacent, without garage is priced at \$8,750



Developments in materials and techniques for modern lighting permit much greater versatility in effects and efficiency that may be achieved. Here are practical suggestions on interior lighting for today's houses

Modern Lighting in a Modern Home

By O. D. Westerberg

Electrical Engineering Department, Northwestern University

HE lighting treatment of this house of modest size in the medium-price range illustrates the possibilities of using new lighting devices and techniques. This planned modern version of residential lighting is a logical and economical solution to a problem which confronts contractors and builders. It was planned to give a family daytime lighting in evening living. Nature provides an abundance of daylight which man strives to duplicate indoors. With the recent development of filament and fluorescent sources, which provide greater amounts of light at no increase in power costs, daylight may be matched by electric light.

The pattern of lighting for this specific house is appropriate and realistic. It gives striking emphasis to utility and specific lighting requirements of diversified family needs. It is evident that the public is looking for something different, new and unique, whether it be lighting effects, furniture or cars. Buyers are convinced today that good planned lighting can add charm and additional services to their mode of living.

The interior lighting of this home was designed to give full benefit to the use of long fluorescent tubes and small filament sources. The use of fluorescent tubes is best since all dimensions can be kept to a minimum and still allow sufficient space between tubes and draperies. This aids materially in building up the over-all lighting intensity in the room. The absence of heavy, ornate center fixtures and wall brackets helps give a spacious feeling to all rooms. Long narrow lighting sources and circular spots should be in proper scale, harmony and refinement of detail for the best result.

Unobtrusive lighting is a natural part of home environment. Lighted valances or spots over seating areas furnish illumination that is a practical innovation for new or old houses. Through balanced placement in the room, the valances will illuminate

sufficiently large areas of draperies and ceiling to provide an adequate and restful balance to light from portable tables and floor lamps. Obviously the illuminated valances accent window and fireplace treatment.

Planned Lighting

Today, lighting is an important consideration while the design of the home is still in the blueprint stage. The rooms of the home are expressions of the mode of living, activities and decorative tastes of individuals and families.

Not so many years ago, when home owners and designers considered the interior decoration of a home, the rooms were designed as to color schemes, rug materials and furniture, with little or no thought about lighting effects. The result was that fixtures were an afterthought. They were hung on outlets placed in the centers of rooms with no consideration of usefulness or appropriateness. Today's home requires a well-planned

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performed problem in Provisions : schemes to trasts of br ity and eve ing is made The first a provide illu ing tasks, r same quan performed of many ne cent and in ous sizes more grace dimensions tubes have tribution a ness with 1 amount of

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ELECTRIC SERVICE

lighting design that will satisfy all household functions. Particular attention must, therefore, be given to the needs of each interior and the purposes for which illumination is needed. One type of light source, whether incandescent or fluorescent, can not adequately satisfy the requirements of every household task.

Quantity and Quality Necessary

The placement of lighting sources where particular functions are being performed may satisfy a lighting problem in quantity but not quality. Provisions should be made for flexible schemes to prevent excessive contrasts of brightness for good visibility and eye comfort. Good home lighting is made of two essential elements. The first and primary purpose is to provide illumination for difficult-seeing tasks, many of which require the same quantity and quality as tasks performed in industry. The creation of many new designs to use fluorescent and incandescent sources of various sizes and shapes has provided more graceful luminaries. The larger dimensions required for fluorescent tubes have improved lighting distribution and lowered fixture brightness with more than double the useful amount of light.

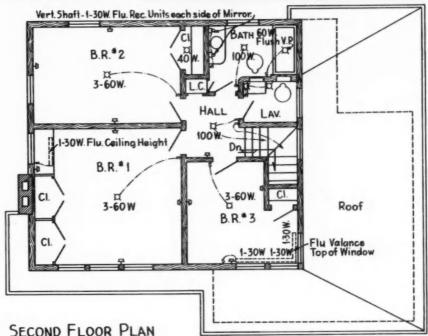
Lighting as a Medium of Design

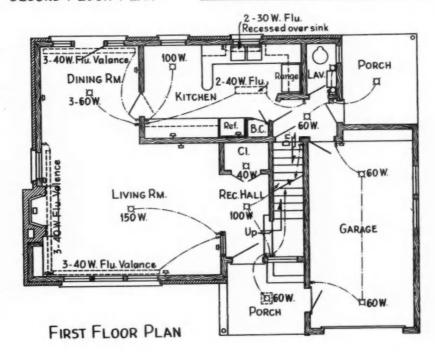
The use of lighting in obtaining decorative effects is unlimited. Architects and designers are realizing the value of lighting as a medium of design and are using it not only for utility purposes but also for decorative purposes. The builder and home owner must also realize that lighting can be one of the greatest aids in beautifying any home and making it more saleable.

There are two kinds of lighting that must be considered in the home, natural lighting and artificial lighting. Natural lighting is obtained if consideration is given to wall openings and their specific treatment. Artificial lighting, however, presents more diverse and complex problems because of man's attempt to simulate nature's conditions. Therefore, before artificial lighting can fulfill all its functions, it should be designed as definitely as other structural features in the home. Unfortunately, it is the more or less common practice to

THIS is a rendering of the Anicka Blueprint House which has been engineered for adequate modern lighting. It is the same house used in Part I of the American Builder series on heating installations







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treat lighting as equipment to be added after the building has been completed structurally.

The development of luminous ele-

The development of luminous elements marks a period of transition. The advent of the fluorescent lamp, being a line source of light, brought about certain changes in architectural considerations. It is more in accord with present trends toward simpler lines and simple treatments of interiors.

Fluorescent or incandescent sources may be recessed behind glass, behind

LIVING room: The manner of lighting will determine how well the room is suited to its uses. Valance lighting makes a room bright and attractive. A valance runs the width of front window, over fireplace and side window, making the area a focal point in this arrangement. The valance is a "closed-top" type due to height of windows. A valance of this type may be made of lightweight wood or wallboard 8 to 10 inches wide, mounted 6 to 8 inches from the wall depending on the drapery arrangement. At night, fluorescent tubes behind valance light up drapes and fireplace. This perimenter lighting is supplement by a recessed downlight

valances or in coves to provide contrast and dramatize the various sections of rooms. Such lighting is a versatile medium; decoratively, emotionally and functionally. It can establish attitude, environment and activity as easily as out-of-door daylight. The cost and form varies with

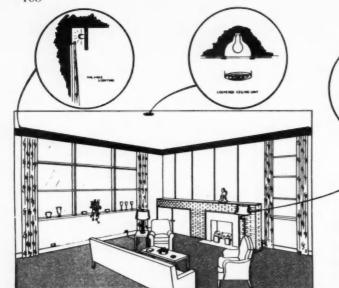
DINING room A (recessed louver): Two lighting systems for dining room provide a desired balance between general and local lighting. The two systems create extended luminous areas, free of spots or bright light sources, in a manner simulating natural daylight. The narrow dimension of this room eliminates the use of center recessed spots for illuminating an extensible dining table. A general lighting system using an elongated light source, as fluorescent, gives the smoothness of light distribution which is functionally decorative and architecturally appropriate. The carefully engineered design of this installation eliminates unpleasant brightnesses by incorporating direct overhead sources with slender valances extended below the ceiling line low enough to cast some light on the ceiling and to avoid an otherwise dark area on the upper wall and ceiling. A method for lighting pictures or drapery is the use of a directional recessed prismatic reflector

the home and family. Many of the suggestions indicated in the accompanying drawing may be installed very economically. The individual taste and pocketbook will determine the extent of acceptance.

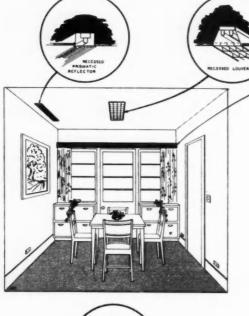
Perimeter Lighting

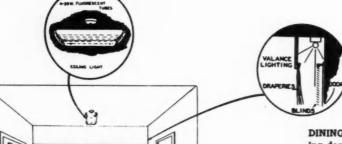
Ideally, illumination should come

DINING room B (surface unit): The two dining rooms differ in lighting design. Lighted valances above the door opening and windows emphasize window treatment. In each room design, the large luminous area at the end of the dining room creates a balance with the living room. Depth of valance in this design is governed by the height of the space between the top of windows and ceiling. With the valance top closed, the full quantity of light will flood the draperles and be reflected into the room. Fluorescent tubes, one inch or less in diameter, are best since the distance from valance to wall may be kept to 8 inches and still provide an uninterrupted flow of light. Separate switch control of the valance lighting and center luminaire is essential for flexibility. The center luminaire may be either fluorescent or incandescent. The picture is lighted from a surface mounted unit









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Drawing it is postionally lighting flexible to vis

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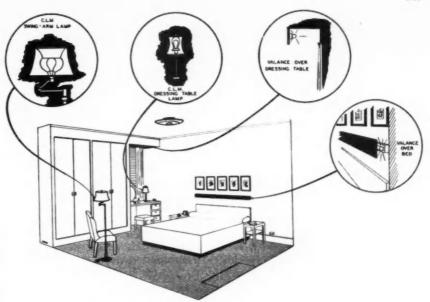
Drawings illustrate how it is possible to solve functionally and decoratively lighting problems in a flexible manner, tailored to visual requirements

from the perimeter of rooms. An exception would be dining areas where high intensities are desired on the center of the table for eating purposes. People live along the perimeter of rooms. Most chairs, divans, radios, sinks, tubs, the refrigerator and beds are placed along walls. Lighting should, therefore, be placed to provide illumination for these areas. A center ceiling fixture would do a good job of lighting the back of books and cause shadows on working surfaces. The accompanying illustrations picture the practicability of perimeter lighting. Note the use of valances of several forms, downlights, and recessed luminous panels to provide good illumination over useful working

Certified Lamp Makers' Lamps

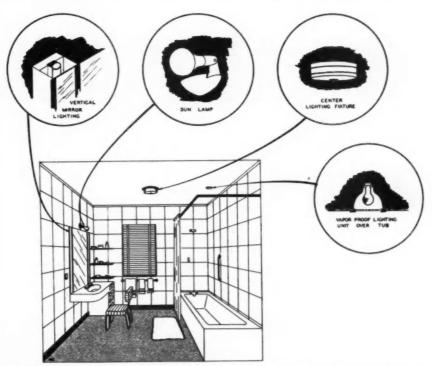
Table and floor lamps that carry the "Certified Lamp" tag are often known as "Lamps With A Purpose". They are engineered lamps of good quality manufacture with good light, beauty and design. These lamps are designed to use the two-filament bulb to give a choice of lighting levels, either high or low. The high level of illumination is for reading, writing and seeing, and the lower intensity for conversation, radio or television lighting. These engineered lamps may be selected to serve both decoratively and functionally, adding to the attractiveness of any room. They provide higher average footcandles of light than previously obtainable with the same wattage bulbs. The "certified" tag is a guarantee as to manufacture, and certifies that the lamp has been tested and found to comply with specifications requiring definite and authoritative standards of sound construction, electrical safety and lighting performance. This C.L.M. tag thus becomes an important aid to the purchaser in selecting lamps.

Next month's article in this series on Engineered House Construction will offer suggestions on lighting the kitchen, laundry and recreation room in this same Anicka Blueprint House.



BEDROOM: A "reading-in-bed" light should not create undue eyestrain. A good reading light can easily be provided by a long fluorescent tube behind a valance or in a reflector mounted on the wall above the headboard. Height of reflector above mattress should be approximately 24 inches. Bed lamps on tables at both sides of bed or a pin-up type lamp over the héadboard are other solutions. The valance design will provide soft, pleasant illumination and eliminate the blinding contrast of bright spots in a dark interior. Night lights located in convenient outlets are desirable in nurseries and sickrooms.

Recessed dressing table niche lends itself to overhead concealed illumination. A small soft white fluorescent tube is installed behind an overhead cornice. A silver-bowl bulb could also be used for this lighting effect. This lighting is combined with "certified" boudoir lamps for the best results. General illumination for the bedroom is provided by an enlarged "bent" glass ceiling unit. Without this general lighting, the lounge chair lamp, the dressing-table lighting combination, and other lamps would stand out as bright areas of light, destroying the effect of a background of soft lighting



BATHROOM: Recessed vertical fluorescent units are good in this bathroom because the mirror is mounted flush with the wall. Where cabinets cause the mirror to extend from the wall an inch or more, surface mounted units on each side or around the mirror are more appropriate. An RS sunlamp controlled by a wall switch

provides sunrays. Vapor proof ceiling fixtures are installed in tub and shower areas. They may be recessed or surface mounted units matching a larger center ceiling unit. Unless the bathroom is less than 60 square feet, a center ceiling fixture should be used. A night light is an inexpensive safety measure

As It Applies To the **Builder and Architect**

by S. Konzo,

Professor of Mechanical Engineering, University of Illinois

DEATH and taxes are inevitable. And so also are fuel bills. After the experience of the past winter when gas supplies were short, fuel oil was rationed, and coal was an expensive commodity, many prospective home owners have been indulging in wishful thinking and have written for information concerning the future of electrical heating, energy from atomic sources, the heat pump, and many other devices. Under certain conditions and with low power rates, electrical heating and the heat pump may be feasible. Very little is known of atomic energy or its immediate application. By and large, however, the majority of the new homes being built and the old homes being remodeled will be heated with fuels that are currently available. There is nothing wrong with them as far as performance is concerned. There is much that can be done, however, especially by the builder and the architect, to insure that the fuel burned is used efficiently and sparingly. The builder and the architect should be responsible for providing the following items:

1. A good chimney or vent pipe for the control of combustion and the exhausting of flue gases.

2. A safe structure protected from fire hazards.

3. A tight structure having a small heat loss.

4. A durable structure protected against damage by moisture condensation.

5. A comfortable structure with a minimum of drafts and cold surfaces.

6. An economical structure for heating in winter and a comfortable structure for keeping cool in the summer.

No heating plant can be expected to maintain a comfortable environment in a wind-blown tent. Conversely, in a room built of walls with a 2 foot thickness of corkboard, a few candles would suffice to maintain the desired temperature. In fact, in one of the well-insulated field structures at the University of Illinois, it was possible to maintain a temperature of 70 degrees in the room with the use of a

few light bulbs. On the basis of some thirty years of research work at the University, tests thoroughly proved that emphasis on the heating equipment alone is not sufficient, and that not enough emphasis has been placed ucts of combustion to the outdoors. An outside chimney that is exposed to the weather on one or more sides will cool off when the burner stops or when the coal fire is low. Then when the burner starts again, the products

A HEATING SYSTEM IS MORE THAN A PACKAGED UNIT HEATING FURNACE EQUIPMENT CONTROLS HOUSE

(Courtesy of Small Homes Council, University of Illinois).

on the structure itself. Comfort literally begins at the blue-print stage of a home.

OR BOILER

A Good Chimney or Vent Pipe Is Mandatory

Every winter information is sought on one or more of the following complaints:

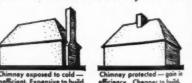
1. The furnace does not draw, and the house is slow to respond to heat demands or the gaseous fumes escape into the house.

2. The home owner is convinced that poisonous gases are being released into the structure.

3. Moisture condenses in the chimney and damages the walls next to the chimney.

4. Fires have started from poor chimney construction.

With automatic fuel-burning equipment and with forced circulation types of heating plants, the chimney can be located anywhere in the house. Nevertheless, the preferred location is an inside chimney, and the preferred height is more than 8 feet from the top to the smokepipe connection of the furnace. The chimney is a venting device that carries out the prodof combustion have to force their way out of a chimney filled with dense, cold gases. Frequently, a back draft may result and complaints arise due to oil fumes, suspected carbon monoxide, or smoke backing into the house. An inside chimney will not

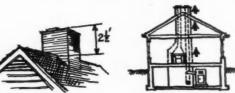


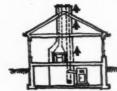
(Courtesy of Small Homes Council, University of Illinois).

cool down as much during the off periods of the burner and is less subject to these troubles which are almost impossible to correct. Furthermore, the heat that does escape from an inside chimney to the house is regained as useful heat and will tend to reduce the fuel bill.

When gas fuel is burned, large quantities of water vapor are formed. This vapor will condense on the inside of the chimney if the inner surfaces of the chimney are cold. In a poorly constructed chimney this moisture, which contains a dilute acid, will

A GOOD CHIMNEY IS NECESSARY FOR ANY SYSTEM







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(Courtesy of Small Homes Council, University of Illinois).

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start a destructive action which may eventually appear on the interior walls next to the chimney in the form of a discoloration of the plaster and wet spots.

Good chimney construction, whether it be of brick or of prefabricated materials, is the first essential of home building. Details of construction are given in the minimum specification of the Federal Housing Administration and should be followed.

Fire Hazards Should Be Eliminated

An appallingly large number of fires reported in this country are due to construction features of the house over which the heating contractor has little control. Some of the more common fire hazards are:

1. In certain areas where soft coal is used, the chimneys and smoke pipes will accumulate a layer of soot. Occasionally, the chimney will "burn out," the soot will catch fire, and a very hot fire will result in the chimney with the scattering of sparks. In dry weather these sparks may set fire to combustible roofs. If the house is properly framed so that no combustible material is touching the chimney no harm will result from this flash fire. If, however, the wood framing does touch the chimney, a danger spot exists.

2. Definite specifications exist for the clearance between smokepipes or vent pipes and adjacent combustible material, such as joists, wood lath and plaster, and wooden partitions. Protect such surfaces. It will be the cheapest insurance you can provide.

3. Insist on relatively short, direct, and well-supported smokepipes that will not serve as collecting chamhers for soot. The sections of the smokepipe should be fitted together with metal screws, not merely shoved into place, and should be securely hung with metal straps every few feet. The smokepipe should be so built that it can withstand any puffback, outside of a major explosion. If the smokepipe is long and has a number of bends, then the home owner should reconcile himself to periodic cleanings of the pipe, particularly with coal-fired equipment.

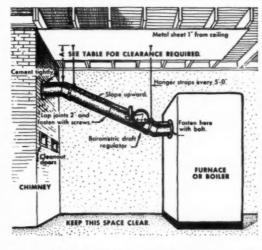
4. This is an appropriate place to speak of thermostatic or automatic control equipment. Controls are sold primarily as a means of maintaining constant indoor temperatures. However, controls will also effectively serve to protect a home against excessively hot temperatures due to prolonged combustion. Limit controls are available that will stop an oil burner or gas burner or stoker, whenever a safe temperature of the furnace

or boiler is exceeded. These controls will stand guard day and night, whether the owner is home or not. Some preferred controls will even shut off a damper in a coal-burning furnace when the electrical current supply fails. One device which has been found to be effective with handfired coal furnaces is the automatic draft regulating damper. This damper, when properly set by the heating contractor, will allow the furnace fire to build up to a certain temperature of the flue gas, but no further. It places a ceiling on the combustion that can be obtained in a hand-fired plant. The furnace will be slower in response to a heat demand, since the maximum fire that can be obtained is always on the safe side. However, it country will become a have-not nation. A single house burning a few million heat units will not in itself make or break a nation. But millions of houses burning millions of heat units will have an overall effect. Accurate statistics are not available for every community, but spot checks that have been made indicate the fact that less than one house out of five effectively utilizes all the known methods of heat conservation.

During the war when fuel oil rationing was in effect, some startling variations in oil consumption were noted. One house in Champaign having 1,200 square feet of usable floor space above ground required less than 800 gallons of fuel oil a season to heat the entire house at a temperature of

SMOKE PIPE OR VENT PIPE CONNECTIONS

to the chimney should conform to the standards shown on this page. They are minimum standards for safe and efficient operation of fuel-burning equipment and are based on the requirements of the National Fire Protection Association and the National Board of Fire Underwriters.



SMOKE AND VENT PIPE CLEARANCES REQUIRED FOR SAFETY (See "A" in drawing above.)

| | COAL OR OIL | | GAS | | | |
|---|-------------------------|-----|-------------------|----------------|--|----------------|
| TYPE OF SURFACE | With Metal Shield | | Purnace or Boiler | | Water Heater, Space Heater, Floor Furnaces | |
| | 1" from Ceiling | | Metal Vent | Type B Vent | Metal Vent | Type B Vent |
| Exposed Woodwork | 12 | 24 | 6 | 1 | 9 | 3 |
| Wood Lath & Plaster Incombustible Lath & | 9 | 18 | 6 | 1 | 9 | 3 |
| Plaster | 6 | 9 | 3 | 1 | 3 | 3 |
| Masonry or Concrete | 1 | 1 1 | 1 | 1 1 | 1 | 1 |

- Combustible material must be kept away from the smoke pipe.
 Do not store things near it.
- 2. The smoke or vent pipe may be sheet metal, cement-asbestos, or percelain enamel pipe. If sheet metal is used, it should be 24 gauge or heavier. (24 gauge is almost 1/32 inch.) The other materials should be listed by the Underwriters' Laboratories, Inc.
- The size of the smoke or vent pipe should be equal to the size of the connection at the fuelburning equipment.
- The connection to the chimney should be as short and straight as possible.
- 5. All joints and seams should be smoke and gas tight and must be fastened securely, so any expansion or "puffs" will not loosen the pipe.
- 6. A draft hood is required as standard equipment for gas-fired
- Automatic or barometric dampers are recommended for use with stokers and oil burners and have been successfully used in installations where coal is hand-fired.
- 8. A cross damper should not be used with a draft hood or a barometric damper. If it is used (usually only on hand-fired coal installations), it must be between the heater and the check damper.

(Courtesy of Small Homes Council, University of Illinois).

will serve not only to protect the house, the furnace, and the smokepipe, but also to reduce the heat loss from the chimney.

If this seems unduly insistent on the matter of fire safety, it should be understood that safety should precede comfort.

No Country Can Afford to Waste Fuel

The ultimate future of this country depends upon its fuel resources. The faster the fuel resources of coal, oil and gas are burned up, the sooner this 72° F. Another house, obviously not weatherproofed, having the same floor area reported a need for over 3,000 gallons a year. To some extent, the burner and heating plant in the second house could be blamed, but the main source of difficulty was in the house itself. Ironically, the person who can least afford to pay a high fuel bill pays so much and gets so little return in the way of comfort.

In remodeling an existing house, the recommended steps in weatherproofing which will yield the largest returns on the investment consist of:

EQUIPMENT THAT MEETS SAFETY STANDARDS BEARS THESE LABELS







OIL

STOKER

(Courtesy of Small Homes Council, University of Illinois).

1. Installation of storm doors, and weatherstripping of outside doors.

2. Installation of storm sash, particularly in the living room, dining room, and sun room areas.

3. Insulation of ceilings.

 Insulation of sidewalls. This step is placed last since it is usually the most expensive.

In the case of a new home under construction, the steps are reversed, since it is better to place the insulation in the sidewalls at the time of construction and to leave to a later date those items which could be readily applied after the house is built.

The minimum requirements for FHA mortgaged homes list the minimum values for heat transmission of walls and ceilings for each locality. These are the bare minimums, and should not be considered as desirable objectives. One of the most difficult walls to insulate properly is the hollowcore wall of a masonry wall. Such walls are fire resistant in construction, but unless special insulation is used, will have heat losses that are higher than the conventional frame wall without insulation.

If panel heating with floor coils is contemplated, or in some cases if radiant baseboards are to be used in a new home, it may be necessary to have the heating contractor specify the allowable heat loss from each room in the home. For example, in the design of a floor panel system the maximum surface temperature of the floor is usually specified as 90° F. This floor surface when heated to 90° F. will emit a given amount of heat. If the amount emitted is less than the normal heat loss from the room to the outdoors, then the only way that the heat emission from the floor can be increased will be to increase the floor temperature above the desired point of satisfactory operation. Similarly, in the case of radiant baseboards, the heat output of the baseboard radiators is fixed for a given temperature of the water. If the heat loss from the room is excessively large, there may not be sufficient space on the walls to install the required footage of baseboard radiators.

The trend towards the use of large glass areas complicates the problem of satisfactory heating. In mild California climates the use of single panes of windows may not invove any difficulties. However, in the colder climates, such windows will condense moisture and form ice and will be the source of local drafts. Remember that one square foot of single-pane window will transmit the same amount of heat as about 16 square feet of a well-insulated wall. It is easy to see that houses with large window areas will cost more to heat. When two layers of glass are separated by an air space, the heat loss will be cut down approximately in half. Even under this condition, the heat loss from windows is not negligi-

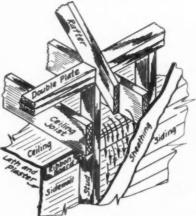
Homes Should Be Provided With Moisture Protection

Some building contractors claim that the sidewalls of a house should not be insulated, since moisture may be condensed in the insulation or sheathing and cause damage to the structure and cause the paint to peel. This need not be the case. Vapor barriers are available which will eliminate the possibility of moisture condensation in the walls. These barriers, consisting of metal foil attached to paper, or asphalt impregnated papers, should be applied to the room side of the studding space, and preferably below the plaster base. They should not be applied next to the sheathing, since the purpose of the barrier is to stop the moisture that exists inside of the room from passing outwards, and not to stop rain from coming inwards. Both the batt type and the rigid board types of insulation are available with such vapor barriers attached to the insulation. The insulation should be carefully applied so that no spaces exist between the insulation where the water vapor can pass through.

Drafts Can Be Minimized by Good House Construction

Cold drafts in the living space can be overcome to some extent by the heating plant. However, good house construction will be more effective in eliminating drafts than will the installation of a good heating plant. The usual sources of drafts and some measures that will eliminate them can be listed as follows: 1. Drafts near outside doors. If the wind whistles through the cracks around the door, the practical solution is to weatherstrip the door, and to install storm doors. If the house contains an entrance vestibule, such spaces should be heated, preferably several degrees above normal room temperatures.

2. Drafts due to leakages around window frames. Air will leak through the small space between the movable sash and the frame. This leakage can be minimized by the use of weatherstripping and storm sash. In many



A NIAGARA of cold air from the attic descends into the open stud space. The result:

- Heat loss estimates by the heating contractor will be underestimated.
- 2. An undersized furnace plant will be installed.
- Furnace will be forced to its maximum capacity, and its life will be shortened.
- 4. Fuel consumption will be excessively large.
- Wall surfaces will be considerably colder than they should be.
- Cold inner wall surfaces will cause walls to become dirty in a short time.
- Cold air leaks around the baseboard and floor moulding will result in presence of cold drafts at the floor level.
- Cold air falling down off the cold wall surfaces will settle near the floor and cause cold floor conditions.

(Courtesy of the National Warm Air Heating and Air Conditioning Association).

cases, air leaks will be found to exist around the window frame where it meets the wall. Such air leaks will eventually cause long dirt streaks to fan out from the window frame. These can be eliminated by calking the joint between the outside of the frame and the exterior wall, and by stuffing the small spaces around the window framing with wool insulation, before the inside wall is applied.

3. Drafts around the baseboard. If the studding space is open to the attic, as it is in some homes, cold air from the attic space will pour down the stud spaces and leak out either in the basement, or around the baseboards. Such air leaks are not confined to studs in the outside wall, since the

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studs for interior partitions may be open to the attic. The best solution is to fill the stud spaces with insulation so that air cannot pour down the space, although it can also be remedied by capping the tops of the stud spaces with wood or with blanket insulation. The drafts from this source may be so strong on windy days that a lighted match will be snuffed out when placed close to the baseboard. Leaks around fireplaces due to cold air entering the attic and rolling down the air space are possible between the fireplace chimney and the plastered wall.

- 4. Drafts due to leaky sills, and poor basement sash. Excessive leakages of cold air into the basement will not only increase the heat losses but will also cool the floor surfaces overhead. In many basements one can see daylight between the sill and the foundation wall. In many respects the poorest fixture in a house is the basement window, which cannot be tightly closed.
- 5. Drafts down stairways into a living space. The amount and temperature of the cold air that slides down stairways and settles on the first story are determined by the presence of uninsulated ceilings and walls of the stairway and of rooms on the second story, air leaks around windows and doors in second-story rooms, and inadequate heating of the rooms on the second story. Weatherproofing the second-story rooms will reduce these drafts.

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6. Drafts due to cold surfaces in the room. Cool air will fall, as any housewife knows who has ever opened a refrigerator door. The room air that is next to cold wall surfaces and cold window surfaces will be cooled and will start downwards towards the floor. In the case of large window surfaces the air velocity may be as high as 150 feet a minute by the time it reaches the floor and will extend considerable distances into the room. Insulation of cold wall surfaces and the application of storm sash to single windows will increase the surface temperatures, and will, therefore, decrease the amount of cold air dropping down towards the floor, making better comfort conditions.

The best way to plan for a comfortable home is to take care of the numerous small items in the structure that can cause discomfort. This is the responsibility of the builder.

Builder-Heating Contractor Cooperation Is Essential

In the planning of a home the heating contractor should be consulted before the house is built, not after the house is under way. A good heating contractor should be able to point out a few modifications in the building plans which will make for a compact and inexpensive distribution system.

Some details of performance and design of various types of systems have been covered in the previous articles by Mr. J. L. Shank. We do not expect the builder or the architect to know all the engineering details that go to make a good heating system. He will have to depend in the final measure on the reputation and



(Courtesy of Small Homes Council, University of Illinois).

the workmanship of the heating contractor. There is one criterion that can be used by a builder or home owner who is shopping for a contractor who is abreast of the times: "Is the contractor acquainted with the Codes and Manuals that have been developed for the industry?" The following Codes and Manuals supercede those

(The codes and manuals mentioned refer exclusively to warm air systems, and are obtainable from the National Warm Air Heating and Air Conditioning Association, 145 Public Square, Cleveland 14, Ohio.)

- 6. I-B-R Installation Guide No. 1, "One Pipe, Forced Circulation, Hot Water Systems"
- 7. I-B-R Installation Guide No. 2, "One Pipe Steam Heating Systems"
- 8. I-B-R Installation Guide No. 4, "Two Pipe, Reverse Return, Gravity Hot Water Heating System"

(The above three guides refer to steam and hot water systems and are obtainable from the Institute of Boiler and Radiator Manufacturers, 60 East 42nd St., New York 17, N.Y.)

Selection of Heating Plant Depends on Many Factors

The eight codes and guides mentioned above have been based to a large extent upon long years of experimental research conducted at the University of Illinois with full scale research homes. They should be the working tools of the heating industry. With a good chimney, a well-constructed home, an up-to-date heating contractor, and any reasonably well-designed heating unit the problem of providing comfortable homes should give little concern to the builder and architect.

Untested claims of fuel savings, some of which have crept into the previous articles, should be viewed with caution. Experience has shown that a well-installed and well-regulat-

YOUR HEATING CONTRACTOR SHOULD SUPPLY THESE







WRITTEN GUARANTEE



SERVICE AGREEMENTS

(Courtesy of Small Homes Council, University of Illinois).

mentioned in the previous eleven articles and should be followed.

- 1. Manual No. 5, "Code and Manual for Gravity Warm Air Systems"
- 2. Manual No. 6, "Service Manual for Changing Forced-Air Systems to Continuous Air Circulation"
- 3. Manual No. 7, "Code and Manual for Winter Air-Conditioning Systems"
- Manual No. 7 "Code and Manual for Ceiling Panel Systems"
- Manual No. 9, "Technical Code for Warm-Air Installations in Larger Buildings"

ed heating plant will give about the same fuel consumption as another type of heating system equally well-installed and well-regulated. Post-graduate students are told that there is no single heating plant that will be better than all other heating plants in all cases. The selection of the best plant for a given structure in a given locality depends upon an evaluation of such factors as: degree of comfort desired, availability and cost of fuels, cost of plant, and qualifications of local heating contractors.

Heating in a home should be carefully planned by builder and architect before construction is started.

Service

For Builders and Consumer Customers

Contractors get many helps in figuring jobs and routing materials from this retailer who makes it a point to know his merchandise and all phases of his business well



B. A. CHAPLOW who gives courtesy and service with materials

THE customer is king in B. A. Chaplow's "one stop lumber shop for all building materials" in Detroit, Mich. Courtesy and service are the watchwords at all times whether the deal involves thousands of dollars worth of material for a builder or a half pint of varnish for a housewife.

Chaplow, whose business is also his hobby, constantly studies the problems of his customers so that he can be of as much help as possible in his capacity as a retailer in helping them to find satisfactory solutions. He has been connected with merchandising building materials for 27 years and has operated his own business in his present location since 1938. His outstanding success in developing a large, profitable volume in troublesome times in a highly competitive market is summed up briefly by Chaplow with the statement: "I know my business. I let my employees and my customers know that," says Chaplow, "not by telling them, but by the manner in which I treat them and operate this lumber yard."

Contractor and builder customers like the service

offered by this firm because they can get special help when it is needed. Chaplow is a draftsman and designer. He, as well as other members of the firm, will go out on jobs and help carpenters and builders make measurements for special jobs, such as custom-built woodwork, unusual stairway problems and similar work. The management of this yard makes it a point to know where the builder customers have crews working as well as what is being done on each job. Because of careful checking in this respect, some builders even depend on Chaplow to route the builder's artisans to the jobs where materials are being delivered.

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Because the customer is king here, builders are given very little opportunity to complain on service, materials or prices. A very profitable trade has been developed with what can be termed "prima donna" builders—those who are not only particular about the type of jobs they will undertake, but also careful checkers of prices and quality of materials. Many dealers shy away from such customers, but Chaplow enjoys catering to such individuals because

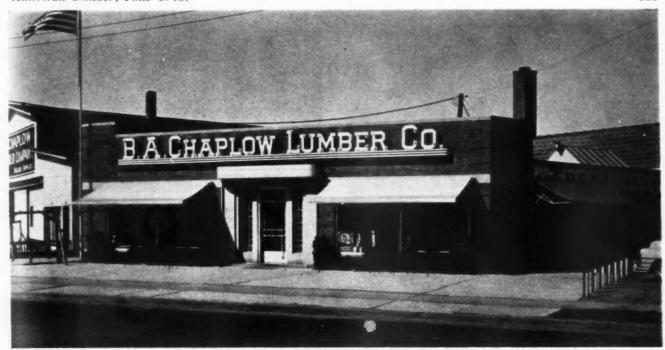


PORTION of the display room showing one end of sales counter.

Prompt, courteous attention to customers is a rigid rule here



LUNCHROOM in basement. Cook prepares luncheons which are served free to employees and customers



This building, 50x150 feet, houses sales room and offices. There is space for 65 cars in parking lot at right of store

they would not be "prima donnas" if they could not afford it because of their reputations. As proof that this is a profitable class to serve, Chaplow cites the fact that at the end of 1947 his accounts receivable were only about three per cent of that year's total sales.

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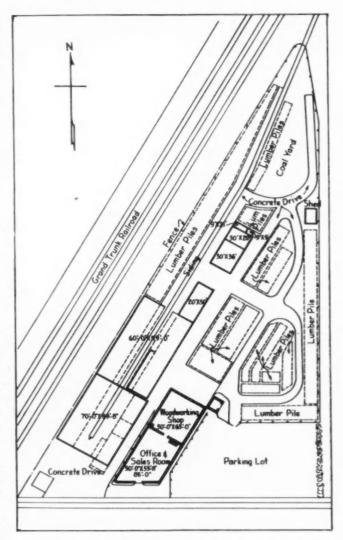
use

As part of this firm's service to builders, it operates a woodworking shop equipped to "make anything of wood for a building." Equipment includes a band saw, mortiser, shaper, drill press, sticker, joiner, two table saws, two radial saws, two belt sanders. Nine men are kept busy in this shop at present, fabricating special jobs for builders and other customers. Special cabinets, built-ins, doors, windows and similar items are produced promptly and satisfactorily.

Chaplow will not tolerate any discourteous or lackadaisical attitude by any employee toward any customer regardless of appearance, financial status, color or creed. Courteous telephone conversations are a "must" in all departments. No smoking by employees is tolerated anywhere in the offices, salesroom or yard, primarily because Chaplow believes that serving customers must occupy the entire attention of employees during working hours.

All employees receive regular daily bulletins describing material being unloaded and put in stock. The descriptions of all materials include sizes, uses, methods of application, colors in stock, special features of the materials and companion products required to complete any job using the basic material discussed in the bulletin. As many as 25 of these have been issued in one week. The practice not only keeps all employees well posted on materials in stock and prices, but constantly reminds them to sell package jobs. Orders are written very completely so that nothing is left to anyone's imagination. Chaplow is considered by two large national manufacturers of building materials as one of the top merchandisers in Michigan.

A small lunchroom, equipped with complete kitchen facilities, is located in the basement under the main office and salesroom. The cook in charge prepares food for service to all employees every noon. Employees as well as customers get free lunches through the courtesy of B. A. Chaplow.



PLAT showing the yard layout and location of principal buildings. A railroad spur comes in at rear and runs almost full length of entire property. Nine men are employed regularly in the well-equipped woodworking shop at rear of large salesroom

Behind the Scenes In an Insulation Factory

How cotton, a basic agricultural product, is processed to make home insulation for the building industry

All Photos Courtesy of National Cotton Council

THE RAPID growth in manufacture and use of flameproof cotton insulation is an outstanding development in the building material field today.

Developed initially in cooperation with the U. S. Department of Agriculture in 1940, a few manufacturers produced only 55,000 pounds that first year. Demand for the product quickly spread, and production and sales increased to 769,000 pounds in 1941, up to 7,447,000 pounds in 1943, 9,351,000 in 1945 and then rose to more than 14,316,000 pounds last year.

This newer insulating material has a number of advantages for the builder. It is light in weight, a cubic foot weighing .85 of a pound. Cotton insulation in the average attic weighs less than 200 pounds. The material stays in place permanently and will not sag or settle. Manufactured in long rolls, it can be installed rapidly, reducing labor costs. Ample length of rolls means less piecing and no gaps in the insulation where drafts or excessive moisture may penetrate. Tests by the Department of Agriculture, covering a long period of time, show the product to be resistant to mildew and rot, moisture and vermin.

One of the features of cotton insulation is its resilience. Cotton insulation, compressed tightly for shipping or storage, will quickly regain its original thickness when it is unrolled.

All insulation manufactured by members of the Cotton Insulation Association is flameproofed under rigid specifications. When subjected to the flame of a blow torch at 1800 degrees, the surface will blacken but will not burn or support combustion. Cotton insulation has been known to prevent the spread of residential fires.

The primary test of any insulation material is its "K" factor, or the amount of heat which may be transmitted through it. The lower this factor, the better the insulation is. The "K" factor for cotton insulation is .242.

Exhaustive tests by the Bureau of Standards have established the value of cotton insulation in the acoustical field. Two inches of the material, installed in any wall, will effectively bar the passage of sound. This quality, in addition to its values as a thermal insulator, has brought about its widespread use in many hospitals, theaters and other buildings needing sound control.

Flameproof cotton insulation is made from virgin shortstaple cotton of which there is always a plentiful supply. Manufacturers of cotton insulation are located throughout the country.



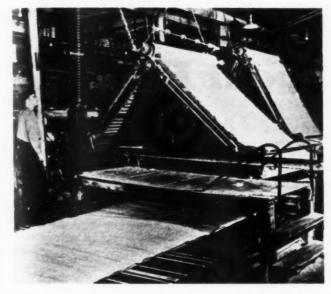
VIRGIN, fleecy cotton goes through flameproofing bath as one of first steps in manufacturing cotton insulation



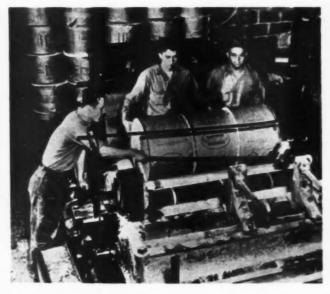
4. SAMPLES of insulation are submitted to 1800degree test. Surface blackens; does not burn



FLANGES on the waterproof backing of cotton insulation permit easy vertical installation between studding



2 GARNETTING machines transform loose cotton into filmy sheets, piling layer upon layer for required thickness



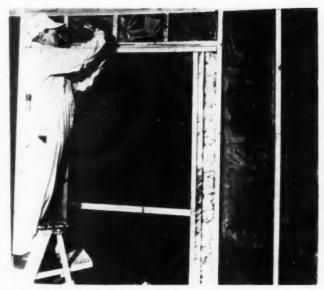
3 ROTARY knives cut the cotton insulation into specified widths before it is attached to the waterproof backing



5. COTTON insulation, compressed tightly for shipping or storage, quickly regains thickness when unrolled



6 COTTON insulation installed over entrance hall. Resilient cotton has regained its original fluffy thickness



SHORT ends left over from installing long cotton blankets are used in small spaces around doors and windows

ula. ling



9. TO INSTALL cotton insulation, the workman needs a stapler, a heavy pair of shears, and a step-ladder

There Is Too Much Loose Talk— **About Housing**

By R. E. Saberson

THE big job ahead for the home building industry is to continue to prove, through performance, that it is entitled to the same important place in our industrial activities in the future that it has occupied in the past.

This may be increasingly difficult, since it now is plainly apparent that for some strange reason no industry was ever subjected to such a continuous barrage of criticism, much of which is unfair, misleading, or even downright dishonest.

Perhaps the tendency to take a swift kick at the industry is due to the fact that it is made up of so many far-flung, component parts that it lacks any semblance of cohesive form. There is little, if any, chance for it to speak as a whole or to exercise any control whatever upon the activities of the countless individuals, or companies, that build from one to a thousand or more homes per year which add up finally to a highly satisfactory total.

No Other Industry Receives As Much Political Criticism

This complete lack of unity conforms to the government's antimonopolistic idea of how an industry should operate. Yet there is no other industry today that receives so much of the politicians' zealous criticism and attention. In a nation that has been beset with innumerable shortages brought about by war, the housing problem transcends all others in the political discussions it has created and in the "relief" measures that have been advocated . by those who are not fitted by knowledge or experience to pose as authorities on the subject.

It might be noted in passing that those industries which are made up of the fewest companies invariably escape the criticism of politicians or the public. We hear little of relief measures to correct the shortages of the several products which constitute the real bottlenecks of the home building industry. Given these critical items, home builders would soon be producing homes at a rate which would turn current shortages into an oversupply. Just why the industry that needs these items, in order to carry on successfully, should bear the brunt of the criticism instead of the industries that are supposed to produce them may possibly be ascribed to the fact that the industry is too far-flung to speak vigorously for itself and to point effectively to its many achievements.

Competition Forces Homes To Be Better and Cheaper

Now there is no gainsaying the fact that a great many inferior homes have been built since the end of the war, or even before hostilities began, and that they were sold at exceedingly high prices. That, however, is only part of the story and perhaps a smaller part than many suppose. Without a single exception, the same thing has been true in every other industry.

It follows, however, that homes, like everything else, will become better and cheaper as supply lines fill up, labor becomes more plentiful and there are fewer customers to buy them. Competition works wonders in this connection. Already this is beginning to take place, albeit not to the same extent as in the case of certain other products, as witness the furrowed brows of distributors with heavy inventories of questionable merchandise. The pipe line of houses may be slower in filling up but it will fill up sooner than expected.

Under such circumstances it is always interesting to read the statements of the critics of the industry and to examine the claims of those crusaders who set about to solve the

housing problem.

With this in mind let's take a look at the April issue of "48," self-styled "magazine of the year," in which we find a typically-critical article by William E. Massee, who makes the following statements concerning the "housing lobby" that "dedicates several hundred thousand dollars a year to the proposition that each member of the housing industry should be financially secure, no matter how much it costs the rest of us.'

This money, according to the writer, is spent in perpetuating the following ideals: (1) The housing shortage is essential to the building industry's prosperity and should continue. (2) Houses should be built only for those making \$5,000 a year or more. (3) Rents should be higher.

(4) Public housing is a threat to democracy. (5) No one should build houses except those in the industry. (6) Home-ownership is the only worth-while housing goal for true Americans-at prices as high as the traffic will bear.

Since V-J Day-and on the national level alone-the lobby and its allies have pursued these ideals by such methods as: (1) Helping to wreck the government's housing pro-(2) Blocking \$35,000,000 worth of Reconstruction Finance Corporation loans to housing manufacturers. (3) Forcing the relaxation of rent controls. (4) Arranging to shelve the Taft-Ellender-Wagner bill, which would provide for the erection of 15,000,000 homes in ten years. (5) Paralyzing the prefabrication industry. (6) Securing the elimination of price controls on building materials.

Mr. Massee's article points out that the "housing lobby" has been so successful that, no matter how much the average American would like to own or rent a decent home," "such homes are out of the question for a third of the nation, far beyond the means of another third, and a very precarious investment even for the wealthiest ten per cent of the population."

President's Economic Report Lists Industry's Achievements

Keeping this statement in mind, let us now turn to the construction industry's achievements in 1947-one of the largest home building years on record, with approximately 850,000 completions. It is interesting to observe how the facts in the case, as given in the President's Economic Report of January, 1948, compare with Mr. Massee's ideas on the

"Twenty-eight per cent of the families had incomes below \$2,000. Excluding the families with incomes of less than \$1,000, who customarily are not in the market for new homes, 15 per cent of the families had incomes between \$1,000 and \$2,000. These families could afford homes costing \$4,500 or less. And 20 per cent of the new homes were in that bracket.

"Twenty per cent of the families had incomes between \$2,000 and \$3,000. These families could afford

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FAMILY INCOME BRACKETS

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homes costing \$4,500 to \$7,000. And 23 per cent of the new homes were in that bracket.

"Eighteen per cent of the families had incomes between \$3,000 and \$4,000. These families could afford homes costing between \$7,000 and \$10,000. And 25 per cent of the homes were in that bracket.

"Thirteen per cent of the fami-

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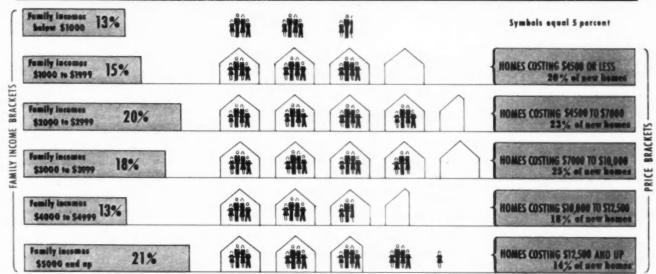
ford

for certain prefabricators who were supposed to produce so many homes that the sum total would make a sizable dent in the housing shortage. It will be remembered that no guaranteed markets were granted that segment of the home building industry which had made the United States the greatest home owning nation in the world . . . the segment that

involved in Wyatt's guaranteed market program can hardly be described as "paralyzing." And the blocking of \$35,000,000 worth of RFC loans to stimulate further production along the same lines and for the same purpose might even be regarded by taxpayers as a highly patriotic act.

The guaranteed market fiasco should in nowise be regarded as a

WHO BOUGHT THE 850,000 HOMES BUILT IN 1947 ?



lies had incomes between \$4,000 and \$5,000. They could afford homes costing between \$10,000 and \$12,500. And 18 per cent of the new homes were in that bracket.

"Twenty-one per cent of the families had incomes in excess of \$5,000. They could afford homes costing \$12,500 and up. But only 14 per cent of the homes were in that bracket."

From this report it is plainly evident that homes were built in approximate proportion to ability to pay, for every one of the income groups that is in the market for new homes, except the families with the highest incomes.

This, of course, is exactly the opposite of Writer Massee's statements. One is only required to decide which report is the more authentic.

Space does not permit us to deal with each of Mr. Massee's claims concerning the so-called reprehensive activities of the "housing lobby." We will merely touch upon two that pertain to house prefabricators, in which it is stated that said lobby set about to "paralyze" the prefabrication industry and to "block" \$35,000,000 worth of Reconstruction Finance Corporation loans to housing manufacturers.

Once again let us look at the facts in the case and consider especially the "paralyzing" effects of Expediter Wyatt's guaranteed market program was then busily engaged in building 850,000 homes despite the almost insurmountable problems created by shortages of materials and manpower. It was the new and untried that captured the imagination of the Expediter, who said in effect: "Go ahead and make 'em—if you can't sell 'em, we'll take them off your hands."

Over Three Million Dollars Spent on Guaranteed Markets

By this time it would seem that everyone knows what happened. The figures have been published far and wide, but for some reason or other are ignored by Mr. Massee. Here they are as they appeared in the Chicago Tribune, February 15:

"Richard Alger, director of the Administration's prefab program, said the program has cost the government \$3,250,000 to date and further expenditures for settling contracts guaranteeing markets for prefabricated homes will boost the loss to \$3,600,000. Alger said the government has had to take over 299 'packaged' plywood prefabs for which the builder could not find a market and has paid three firms more than two million dollars to cancel their government contracts. Alger said about \$2,250,000 was paid for the houses the government had to take over."

The almost unbelievable generosity

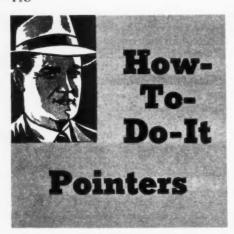
black mark against that segment of the prefabricated house industry which was well organized, amply financed, efficiently managed and proceeding on its way by virtue of its skill and ability and earning its place in the sun through the quality of its output.

Writer Massee's article is a typical example of the loose talk which is being fed the public. Such being the case, it would seem to justify the existence of a powerful "housing lobby" if it were possible to organize one to protect the industry and refute the many unjust statements that appear in many magazines and newspapers from whence vote-seeking politicians apparently take their cue. Conceivably an industry might be done away with, as nations have been destroyed, by devastating propaganda . . provided it is made strong enough, as a former well-known paper hanger once remarked.

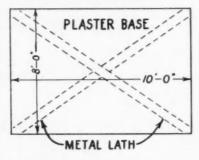
We have no brief for those in the home building industry who seize upon the opportunity to give the least possible house for the most money while the getting is good. The same thing is true of any other industry. It merely is our contention that this element does not represent the great rank and file and that maximum value in housing in the future will come through free competitive enterprise as it has in the past.

1" 3" 48"

HANDLE



How to Prevent Cracks In Plaster Ceilings



WILLIAM BERTAGNOLI, Hurley, Wis., submits this suggestion. To prevent cracks from occurring in a plastered ceiling, nail strips of metal lath approximately 6 inches wide to the plaster base. These strips should extend from one corner of the room to the opposite corner as shown.

How to Avoid Split Boards When Nailing



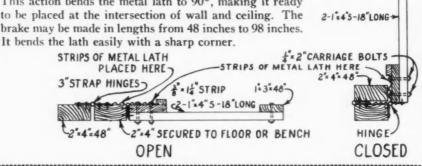
RUSSELL WHITE, Georgetown, Ohio, states that by employing the following procedure, the splitting of boards when nailing may be reduced to a minimum.

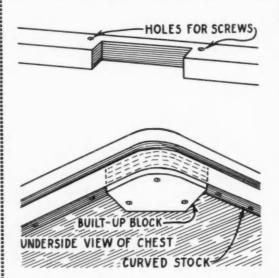
Place head of nail on a solid surface. Hit nail point two or three light blows with hammer. This will batter the nail point, permitting it to cut through the board instead of splitting.

How to Make Expanded Metal Brake

A METHOD for making an expanded metal brake is submitted by J. G. Caldwell, San Mateo, Calif.

One of the 2x4-inch members of the brake is secured to floor or bench. Strips of metal lath are cut and placed in the brake as indicated. The hinged 2x4 is moved on top of the metal lath to hold it in position. The handle is then grasped firmly and pulled to a vertical position. This action bends the metal lath to 90°, making it ready to be placed at the intersection of wall and ceiling. The brake may be made in lengths from 48 inches to 98 inches. It bends the lath easily with a sharp corner





How to Curve Thick Wood Stock

TO BEND thick stock in a continuous strip around corners on cabinets and chests, Herbert E. Fey, New Braunfels, Texas, suggests this method.

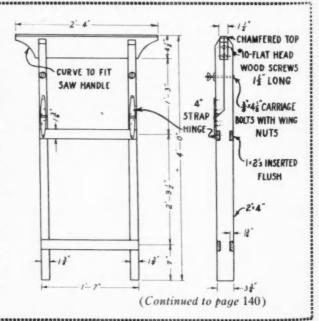
First, the corner is fitted with a built-up block as shown. Then, the strip to be curved is cut narrower at the point where the strip is to be bent. The radius determines the thickness of the bent portion. Cut in this way (with one end of the strip screwed to the cabinet), the strip can then be curved without splitting.

How to Make A Saw Clamp

FROM Robert K. Schelhorn, instructor at The Hershey Industrial School, Hershey, Pa., comes this idea.

Because of simplified construction and ease of handling, the saw clamp can be moved as required.

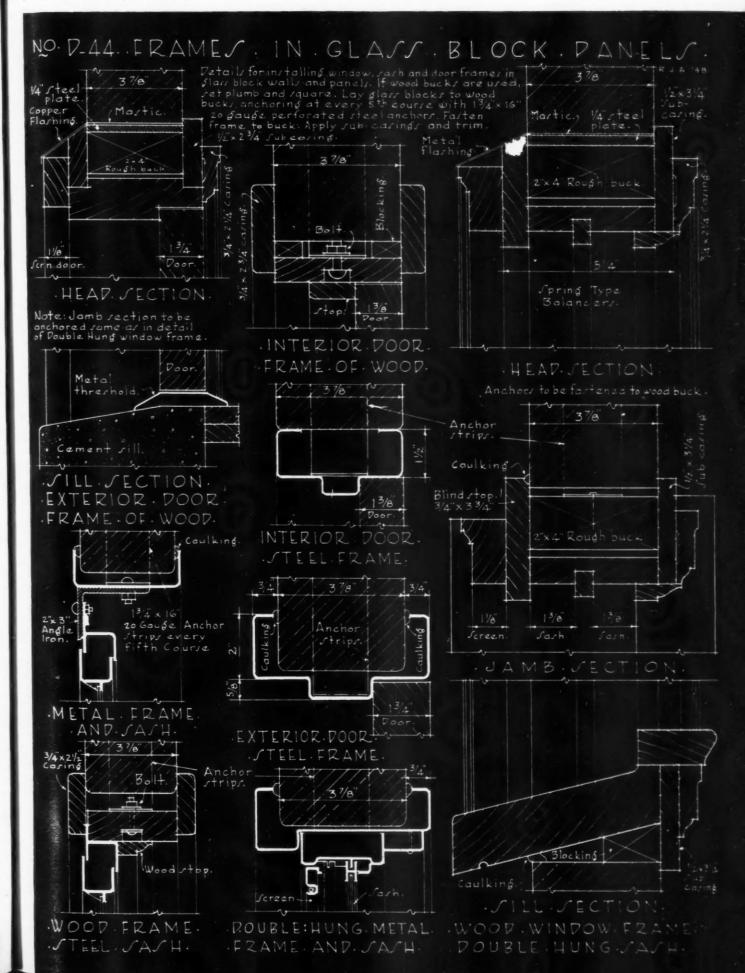
For use in sharpening saws, the clamp can be placed against bench or counter and held in position by the operator.



AMERICAN BUILDER'S BETTER DETAIL PLATE

American Builder, June 1948.

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NEW PRODUCTS

Offered by Manufacturers

PRE-MOLDED COVE BASE

A pre-molded flexible plastic cove base is announced by Hachmeister-Inc., 2332 Forbes St., Pittsburgh, Pa. Called the Hako Plastic Base, this product is set directly on the finished floor, or can be applied with special cement to any level wall sur-

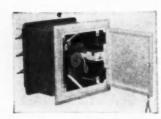
face. Being flexible, it is easy to fit



around corners. Besides being easy to clean, Hako Base is grease-proof, odorless, and resistant to all household cleaners and solvents.

KITCHEN VENT FANS AB6803

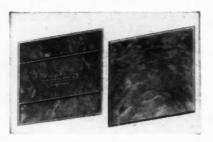
The Signal Electric Manufacturing Co. of Menominee, Mich., manufacture a kitchen vent fan that is adjustable for wall thicknesses 6 to 11½ inches, and 13 to 24 inches. The outside shutter frame is cast aluminum with automatic lever operated shutters. The motor is totally en-



closed and can be disconnected or removed for cleaning. The unit is equipped with a 10-inch quiet-type fan.

PLASTIC WALL TILE AB6816

Wilson Plastics, Inc., 131 Arthur St., Sandusky, Ohio, have devised a new type of plastic wall tile. Their tile is molded with four undercuts extending across the back. When pressed into place, the undercut ribs become a mechanical lock between the mastic and the tile, and together with the

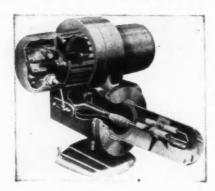


bond of the mastic results in an installation that is smooth and even. The locking ribs not only give added strength and rigidity to the finished wall but prevent the mastic from drawing the tile concave when it dries. Trade named Lockback, the tiles are available in twenty colors, marbleizations and trims.

SMALL OIL BURNER

The smallest gun-type, pressure atomizing conversion oil burner in the York-Heat line is announced by York-Shipley, Incorporated, York, Pa. Designed for small homes, the burner is adaptable to

AB6817



any boiler or furnace in the small home heating field. Known as Model C-7, the burner has a firing capacity of from 1 to 2.25 gallons an hour for a rating of 100,000 B.T.U. an hour minimum to a maximum of 225,000 B.T.U. an hour. It features an aluminum casting made by a permanent mold process, and the Iris Shutter which is exclusive with York products. Available in seven different capacities, depending on the nozzle size, the burner will operate on kerosene, light oils or catalytic oils.

MORTAR FOR GLASS BLOCKS AB6815

A mortar sealant specially formulated for use on glass block has been

developed by the American Fluresit Co. Inc., 635 Rockdale Ave., Cincinnati 29, Ohio. Known as the Klee Sealant, it is a rubbery substance that coats the exterior mortar joints, adheres to the mortar and forms a tight flexible bond to the glass, expanding and contracting with the mortar and the glass without rupturing the film. Of plastic-like consistency, Klee Sealant can be applied with a caulking gun or thinned for brushing. It will bond tightly to



mortar, glass, tile, brick, metal and wood. Packed in quart and gallon containers, it is available in white or in other colors.

GARBAGE DISPOSER

A low-priced, easily installed garbage disposer is being produced for the average home. Designed to fit most double-bowl sinks without lowering the waste line, the unit requires only two connections when installed—a simple toggle switch and a waste line connection. Like other disposers, it



cuts, shreds, and grinds all bones, fruit pits, parings, seeds, shells and other food wastes to tiny particles that are swirled down the drain. Produced by the Given Manufacturing Co., 2412 West 7th St., Los Angeles 5, Calif., it is called the "Little King Pulverator" and carries FHA approval. Important features are a

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white enamel finish, Dura-Steel cutting parts, and double wall construction with dead air space to reduced noise.

TACKMASTER

AB6806

A handy tool for applying rock wool batts, blankets and foil-type insula-



tion is to be found in the improved Markwell tacker. A light weight model, it is compact and ruggedly constructed to drive the Markwell "RHD" 5/16-inch staples flush into rafters, joists, and studs. Another outstanding feature is its design which permits it to reach into the eaves and dormer rafters. Manufactured by the Markwell Manufacturing Co., Inc., 200 Hudson St., New York City, it is called the "RH" Insulation Tackmaster.

SCREEN DOOR BRACE

AB6812

To prevent or correct sagging screen doors The Stanley Works, New Brit-



ain, Conn., offer a new screen door brace. Feature of the 21-inch wrought steel brace is a adjustment brass screw, located at one end for quick and easy regulation and desired tension. Applied to inside of door, brace is inconspicuous and tamper proof. The Stanley company identifies this product as door brace No. 1738.

INSULATED FLOORING AB6809

A flooring that is soundproof, waterproof, cannot squeak and is easy to install is available. It is made of kilndried hardwood boards cut into 6-inch, 9-inch, or 12-inch squares, each of which is insulated on all four edges by a 1/4-inch latex-filled strip of non-skid fibrous material. When installed, each square is at right angle- to the adjoining square, resulting in an attractive parquetry as well as durable floor, insulated throughout. A madic glue secures each square firmly to the sub-floor, cement slab or old florring, eliminating nails entirely. At the edges of the room, squares are



easily fit around pipes or cut to fit. In the latter case, end-waste in cutting runs as low as 4 per cent. Named the Castle Square Flooring, this product is manufacturing by the Newcastle Industries, Inc., 300 West 56th Street, New York 19. N.Y.

PORTABLE MASONRY SAW AB6813

A new portable, electric-guided saw performs rapid cutting operations on the job in cutting concrete blocks and slabs, marble, granite, face and common brick or structural steel. Known as the Stone Blue Streak, it is light, weighing but 78 pounds. In the picture, it is being used to cut reinforced concrete floor slabs and makes the



complete cut in about 45 seconds. Cuts wet or dry, using diamond or abrasive wheels. Manufactured by Stone Machinery Co., Manlius, N.Y.

PORTABLE FANS

An innovation in electric fan design is introduced in the Modern-Aire Consoles produced by the National Gas Equipment Co., Inc., Terrell, Texas. These lightweight fans are enclosed in a streamlined heavy wire basket equipped with tubular steel handle and base. Designed to set on the floor, the unique enclosure eliminates the danger of accidents occurring to passersby or small children. The line features General Electric motors. To provide maximum air movement with minimum turbulence, each fan has three overlapping blades.

CIRCULAR HEATER AB6807

A new type of circular unit heater known as the Vertiflow is on the market. Made by the Young Radiator Co., Racine, Wis., the unit is a vertical discharge type. Outstanding feature is a unique motor-cooling method known as "open stack" ventilation. By mounting the motor in a stack that is open at both ends, at the center of the circular heating core, motor baking is eliminated. Specially-designed fans draw room air through the open ventilating stack and, at the same time, direct the air taken from the heated core downward through the fan opening. This provides a flow of air around the motor which reduces



the motor operating temperature. The Vertiflow line includes seven models designed to deliver from 52,600 to 552,000 B.T.U.'s an hour.

BATHROOM CABINETS AB6

An oval mirror door which looks like a decorative mirror when the door is shut is the outstanding feature of the Beau-Fort Model 27D bathroom cabinet. The mirror hides the entire cabinet and swings open on a specially designed hinge. A bullet door catch, rubber bumpers, padded metal-drum mirror back and chrome-plated mirror clips add long life and service-ability to the cabinet. It is equipped with a razor blade disposal drop, rounded shelf holders to keep it free from dust, and three sturdy machine-edge glass shelves. The Beau-Fort



line of bathroom cabinets is made by The Toledo Plate & Window Glass Co., 1041 Utica St., Toledo, Ohio.

GAS RANGES

AB6802

The Magic Chef provides a total of 28 different models in the 1948 line of gas ranges. Designed to fit any kitchen arrangement and to meet practically any price or purpose, the models range in size from a 20-inch

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wide apartment unit to a 43-inch wide deluxe model. Such features as the automatic oven clock control, glass in oven door, and top griddle vary in the different units, but important innovations in design are standard.



These comprise a one-piece top combining backguard, cooking surface and front panel; an oven with rounded corners for proper heat circulation; a high-level swing out broiler that is smokeless and completely removable; a chrome, hood-type flue deflector; and "Fiberglas" insulation, American Stove Co., 4301 Perkins Ave., Cleveland 3, Ohio, is the manufacturer.

SASH BALANCE

AB6804

A flat-type sash balance designed to eliminate cable jamming between face plate and cable drum has been introduced by Acme Sash Balance Co.,

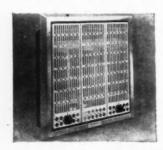


1626 Long Beach Ave., Los Angeles, Calif. This improvement is achieved through the use of an embossed face plate which provides a protective nest for the cable drum. The embossed feature is said to materially strengthen the face plate and the entire

balance. Additional features include a special oil-impregnated fibre washer between spring housing and face plate for quiet, friction-free operation.

WALL MODEL HEATER AB6819

The wall model heater recently announced by the Electric Heating



Dept., Westinghouse Electric Corp., Emeryville 8, Calif., features a builtin thermostat with adjustable control. The model, designed to be recessed in the wall, is equipped with an attractive modern grill. Approved by the Underwriters Laboratories, Inc., it heats by both radiation and convection. Units are available with 1,500 to 4,000-watt capacities, and operate on 230 volts A.C.

COMPACT FURNACES AB6811

The furnace pictured is designed primarily for closet or utility room installation but may also be centrally located in the basement. It is Model 378 of a new four unit line of oil-fired furnaces now in production at the Evans Products Co.'s Plymouth, Mich., plant. The line includes three compact, packaged furnaces and a new conversion burner, all shipped



completely assembled and wired for installation. Model 388 is an all purpose furnace designed for use in small and medium-sized homes as a winter air conditioning system. Model 458 is for basementless homes. Only 24 inches wide and 39 inches in depth, is easily installed between floor joists.

ORNAMENTAL SCROLLS AB6

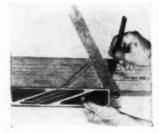
Ornamental scrolls for use on screen doors and storm doors can be obtained from the Howard A. Daum Co., P.O. Box 7981, Pittsburgh 16, Pa. Reproduced from hand carved designs, these scrolls are made of cast aluminum finished with a base white coat of baked-on enamel. They are



packaged in cartons per set, complete with special aluminum screws, ready for installation. Trade-named Scroll-Ettes, they are designed to fit any door. The current line features eight patterns.

AUTOMATIC FRAMING SQUARE AB6814

An automatic framing square which quickly and accurately figures roof framing is being manufactured by Lloyd L. Crowley, 1880 South 12th St., Salem, Ore. Combining the principles of a framing square and a slide rule, the tool solves framing problems and provides a pattern for marking all cuts; all the operator needs to



know is the width of the building and the pitch of the roof. Rafter tables on either side of a jacknife blade enables the user to determine the rise per foot and length of rafter at a glance.

CHECK NUMBERS AND MAIL COUPON FOR INFORMATION

American Builder, 105 West Adams Street, Chicago 3, Illinois

NAME.....ADDRESS....

AB6801 AB6805 AB6809 AB6813

AB6801 AB6805 AB6809 AB6813 AB6817 AB6802 AB6806 AB6810 AB6814 AB6818 AB6803 AB6807 AB6811 AB6815 AB6819 AB6804 AB6808 AB6812 AB6816

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

Rō-Way

OVERHEAD TYPE

DOORS



'Better Service for More Years"



That's the No. 1 Plank in the Ro-Way Platform

We adopted it in 1908.

We've been running on it ever since.

Must be pretty sound, too.

Each year Ro-Way has rolled along to record breaking popularity.

It has carried every state in the Union.. most cities and towns, too.

In your classified telephone directory you will find the name of the Ro-Way Distributor.

He's as popular as Ro-Way Doors.. and just as proud as we are of the No. 1 Plank in the Ro-Way Platform.

When we say we design and build Ro-Ways to give "Better service for more years", he backs us up by installing them so they will give you "just that".



On any ticket calling for overhead type doors, mark "Ro-Way". You'll pick a winner every time.

Rowe Manufacturing Company, 737 Holton St., Galesburg, Illinois, U.S.A.

There's a Rollay for every Doorway!



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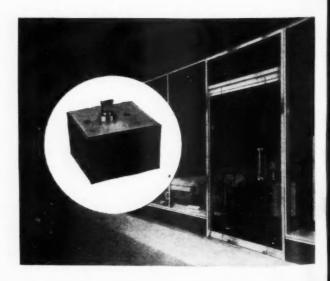
Customers like "the modern look". the



Pittco De Luxe Division Bar

Quick, Easy Installation is possible with both lines of Pittco Store Front Metal. All setting operations are carried on from outside, and the speed and simplicity of setting procedures reduce installation time and save money. Pittco De Luxe is extruded to give it sturdy strength, sharp profiles, and a rich, lustrous finish . . . it is a quality metal for better jobs. Pittco Premier is lighter in weight and more moderately priced than its distinguished companion line . . . it features gracefully curving lines and a smooth, attractive finish.

Assembled, Ready to Install . . . that's the new Herculite Door-Frame Assembly to accommodate standard Herculite Doors. The entire assembly comes as a complete package that may be installed as a unit as soon as a building is ready to receive doors. It is available in twelve styles to satisfy every door requirement, and it is one of the sturdiest and handsomest structural shapes ever designed. The Pittco Checking Floor Hinge was specially designed as a part of this assembly. It is precision-made and includes positive door-speed control, separate checking control, built-in hold-open feature, and other unique advantages.

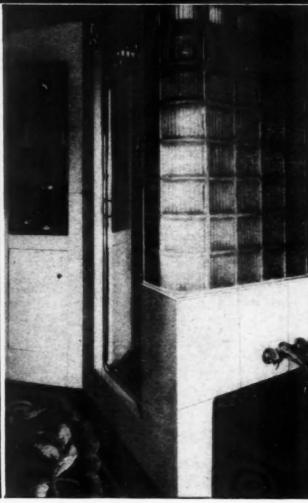


Open Vision Stores permit customers to see merchandise displayed in the store interior, thus arousing greater interest, increasing sales appeal, and building a larger volume of business. Progressive merchants are anxious to use "open vision" to help them boost sales. Sell them a "Pittsburgh" store front. The "Pittsburgh" name is well known as the leader in store modernization work. When you offer Pittsburgh Glass Products, Pittco Store Front Metal and an experienced crew of "Pittsburgh" workmen to do the job, you are offering your customers the most modern and attractive store front installations available.

COMPANY PITTSBURGH

"they want to use more Glass





A Woll Mirror reflects all a room's color and movement, making it seem brighter and larger. And a handsome picture window brings the outdoors doser, admitting floods of daylight. If insulated windows are necessary, suggest Twindow, "Pittsburgh's" new window with built-in insulation. Twindow practically eliminates fogging, reduces down drafts near window areas, and helps to maintain an even room temperature,

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

*Build it better with

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Pittsburgh Glass

Add Color and Glomor to bathroom and kitchen with walls or wainscots of Carrara Structural Glass, Carrara's range of ten attractive colors permits it to be blended with practically any color scheme, and it's very easy to keep it bright and shiny indefinitely. Pittsburgh Corning Glass Blocks make an ideal shower partition. The smart Plate Glass shower door replaces a bedraggled curtain.

| Pitt | sburg | h Plat | e Glass | Compa | ny |
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NY ITTSBURGH PLATE GLASS COMPANY

DEALER REVIEW

number:



NEWS OF NRLDA AND STATE AND REGIONAL ASSOCIATIONS

National Receives ATAE Award For Industry Engineered Homes Program

THE National Retail Lumber Dealers Association has been presented with an American Trade Association Executives "Award of Merit" for development and promotion of the Industry Engineered Homes Program. Placing second in the large national association classification of the ATAE awards, the NRLDA was cited for "outstanding service to the industry which it represents as well as to the American public." The Award of Merit was presented at the ATAE 13th National Awards luncheon at the Statler Hotel, Washington, D. C., April 26. David Bruce, assistant secretary of the Department of Commerce, made the presentation of the award to Secretary-Manager H. R. Northup.

The NRLDA received its first ATAE award entirely on the public service value of its development and promotion of lower cost homes for American homeseekers through the Industry Engineered Homes program. Each of the federated associations promoting the engineered house in the field, and who make up the National Association, will receive a replica of the award to the National for their part in

hing factor ... Come P. Vanterellar

making the program a big success.

The overall objectives of the
IE Homes program are three in

1. To meet America's need for lower cost homes without sacrificing essential standards and quality. This program, it was pointed out, was not a "poverty housing" program, but was designed to develop means of lowering the cost of home construction regardless of the price level existing at any given time.

2. To provide smaller contractors everywhere with the coordinated materials, methods and designs generally available to large-scale operative builders.

3. To meet the challenge of public housers, in and out of government, and to prove that private enterprise could provide the homes needed by America.

Such ideological objectives had to be translated into practical terms. The practical objectives, therefore, were five in number:

A. To secure cooperation between the manufacturing and distributing elements in the building industry essential to the continu-

(Continued to page 128)

Camouflaged Public Housing



by H. R. NORTHRUP Secretary-Manager NRLDA

Since FHA Title VI has been included, it is now obvious that the so-called T-E-W Bill is a cleverly camouflaged public housing bill which was never designed as an aid to private industry.

Authority for the FHA to insure home loans under Title VI of the National Housing Act is in no way connected with any long-range housing

program.

The proponents of the long range housing bill, in insisting on the mere 30-day extension of Title VI, obviously were attempting to blackmail the House of Representatives into passing legislation which admittedly would not be acceptable to the House unless Title VI extension were made a part of the legislation.

It is equally obvious that proponents of the long range housing bill have no faith in the merits of the public housing bill when they openly admit that its defeat is a certainty once Title VI is removed by enactment in a separate bill such as proposed by Senator Cain of Washington. If the public housing provisions of the long range housing bill cannot be sustained on their own merits, then the legislation should be defeated.

The proponents of public housing are at last out in the open as to their intentions. Although they profess to provide aid for private industry to build houses, the real intention is to establish a long term public housing program which will finally throttle the private building industry and socialize housing in America.



SECRETARY-MANAGER H. R. "Cotton" Northup receiving "Award of Merit" from the American Trade Association Executives in recognition of work the NRLDA has done in promoting economy housing with the Industry Engineered Homes Program. David Bruce, assistant secretary of the Department of Commerce, made the presentation



The beauty of PAU

PAINE DOORS is that



U.S. Pat. 1.887,814. The exclusive interlocking grid core within the Rezo door allows constant air circulation, adds extra strength, provides greater residity.

door allows constant air etreulation, adds extra strength, provides greater ty and economy go hand in hand in

Paine Rezo doors, give you both a sales approach to your customer and a practical approach to your job. Pre-fitted and light in weight, the 13/4" Paine Rezo is quickly hung. The clear flush surface takes little time for painting or staining, goes twice as fast as a panel door . . . specific advantages that make the installed cost of Paine Rezo doors no more than ordinary doors.

The air-cell construction features are exclusive and patented—minimize warping and shrinking, provide the greatest dimensional stability of any door. Home buyers benefit, too, from values like this . . . and there is no denying how much these smartly styled doors can do to make small rooms seem more spacious and charming. Because these built-in qualities never fail, over two million Paine Rezo doors are in service today—the choice of America's leading contractors and builders. Ask your dealer for Paine Rezo doors, or write for a factual builderin

Manufactured by the

PAINE LUMBER CO., Ltd

Oshkosh Wisconsin

ESTABLISHED 1853

Dealer Review

(Continued from page 126)

ous flow of coordinated modular materials which could be combined with the least lost time and waste,

B. To study methods, designs and on-site construction procedures and to publish the resulting recommendations for the benefit of all those engaged in small home construction.

C. To stimulate local building industry interest in and acceptance of the program.

D. To inform the public of the industry's research and results and to explain the possible benefits of the program to the American homeseeker.

E. To promote actual local construction of model homes incorporating the principles and procedures recommended for use in small home construction.

Herb Stokely Heads Texas Association

HERB STOKELY, mayor of Brownsville, Texas, was named president of the Lumbermen's Association of Texas at Galveston in April. Stokely, serving his second



HERB STOKELY, mayor of Brownsville, president, Texas Lumbermen's Ass'n

consecutive term as mayor, was unopposed for re-election. He is identified with numerous civic activities in the city.

An interesting recreational activity at the convention of the Texas association in Galveston was a fishing contest. The fishing was done off the end of the Galveston pier from a deck about 15 feet above the waters of the Guli of Mexico. The largest fish caught was an amber jack weighing 35 pounds, four ounces. It was caught by Oscar R. Spencer, retail lumberman from Marlin, Texas. Spencer used two hooks baited with cut mullet. The jack took both hooks,

(Continued to page 130)

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Build More <u>Salable</u> Homes with PC Glass Blocks

THEIR preference for glass blocks has been expressed by a large proportion of the people who currently intend to buy or build new homes. So you can build more sales appeal into your homes when you include attractive panels of PC Glass Blocks—especially around doorways, in stairwells, in kitchens and in bathrooms.

And now you can get prompt delivery on all sizes, shapes and patterns of PC Glass Blocks for new construction and for remodeling jobs. No waiting for hard to get metal.

PC Glass Blocks, modern and attractive in appearance, are adaptable to all styles of architecture. They admit plenty of daylight. They insulate lighting areas, thereby reduce heating and air-conditioning costs. They are easier to clean than windows. They require no up-keep, no painting, no storm sash.

Whether you are doing new construction or remodeling jobs—homes, offices, shops or stores—be sure you have the latest information on PC Glass Blocks. Send the coupon for your free copy of our new booklet. Pittsburgh Corning Corporation also makes PC Foamglas Insulation.

PC GLASS BLOCKS
... the mark of a modern building





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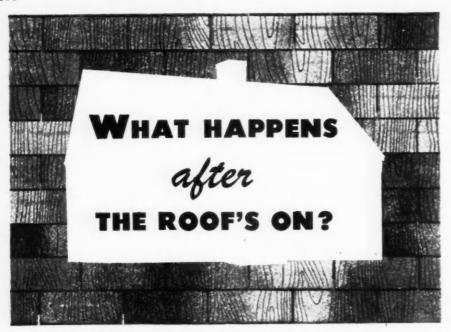
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A roof is no better than its shingle ... and unless it's a *good* shingle, the effort and skill you put into

your building is wasted.

Bird Masterbilt Thick Butt Shingles stand the test of time...a Bird roof is a better roof. Extra layers of asphalt and deeply embedded mineral granules give tough lasting protection where it counts...on exposed tabs. The rugged surface defies weather... and fire resistance is greatly increased for the long life of the shingle. Narrower cut-outs and heavier shadow-lines give added massive beauty... and a wide range of handsome lasting colors and blendes is available.

Test Bird Masterbilt Shingles yourself...compare them. They are your assurance of years of extra wear, of lasting beauty.

* * *

Bird helps you build better homes in many ways. Neponset Black Vapor Barrier guards against costly damaging in-wall condensation, yet costs approximately \$20 for a \$10,000 house. Investigate it today.

, inc.

Established 1795

Chicago

Dealer Review

(Continued from page 128)

and was gaffed by Spencer unaided, and hauled up to the deck. The jack was caught on the closing day, and was worth two dollars a pound to Spencer. The next largest catch was a 14-pound drumhead.



OSCAR R. SPENCER, Cash Building Materials Co., Marlin, Texas, holding 35-pound amber jack, largest catch made during Texas retailers' convention at Galveston

Directory Lists Producers Of Shingles on West Coast

THE Red Cedar Shingle Bureau has prepared a directory of Pacific Northwest shingle manufacturers. The names and addresses of approximately 100 producers in Washington, Oregon and British Columbia are listed.

Copies of the directory are available free of charge from the Red Cedar Shingle Bureau, 5510 White Building, Seattle, Wash.

Owens-Illinois Purchases Plywood, Veneer Firms

PURCHASE of all the common stock of Blair Veneer Co., North Troy. Vt., and its wholly owned subsidiary, Vermont Plywood, Hancock, Vt., by the Owens-Illinois Glass Co., has been announced jointly by W. E. Levis, chairman of Owens-Illinois, and Charles T. Hall, chairman of Blair Veneer.

Blair Veneer and Vermont Plywood will continue to operate under present management and to supply customers as they have in the past. They will be operated as a part of American Structural

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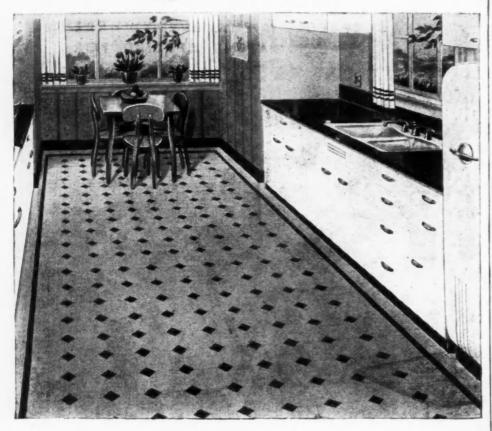
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The PREFERRED Home Floor is Wright Rubber Tile





Color Goes Clear Through



New Walking Comfort



LIFETIME SMARTNESS—the keynote of Wright Rubber Tile advertising in leading magazines to home owners—expresses the fast mounting trend in home floors, and explains the increasing preference for Wright Rubber Tile in the home, among architects and builders.

WRIGHTEX is the recommended Wright Rubber Tile for home floors. Its complete adaptability to present day trends and home-floor requirements is notable. Its wide choice of rich, enduring colors and sizes assures the much-wanted variety of individual designs, that fit your decorative plans.

From the practical side—the resilient texture of WRIGHTEX cushions every step . . . an important addition to kitchen floors especially. It is noiseless. Furthermore, it is the easiest of all floors to keep clean, glowing and lustrous.

Where radiant heat is planned—WRIGHTEX is the outstanding preference. Exhaustive tests demonstrate that it is not affected by high temperatures...reduces heat loss to a minimum odurless

In the home market, as well as for churches and hospitals, WRIGHTEX sets the top-quality pace, as does WRIGHTFLOR for commercial and business installations exposed to heavy traffic. For complete information on Wright Rubber Tile, write—Taylor Manufacturing Company, 3050 W. Meinecke Ave., Milwaukee 10, Wis.—America's oldest maker of rubber floor tile,

WRIGHT RUBBER TILE

Floors of Distinction

Dealer Review

(Continued from page 130)

Products Co., Owens-Illinois subsidiary. Since Blair Veneer and Vermont Plywood are hardwood manufacturers this acquisition will not constitute a source of plywood for building material accounts of American Structural, Mr. Levis said. It is expected, however, that eventually a part of the output of Blair Veneer and Vermont Plywood will find outlets in products manufactured by American Structural and also that the plywood plants will use some of American Structural's products in their processes.

Family Has Total of 82 Years' Service in Industry

A FAMILY of lumbermen are the Kaufmans with a combined service of 82 years in lumber and building materials retailing. J. Kaufman, standing, and his three sons are managers of retail lumber stores for The Long-Bell Lumber



Co. Hugh Kaufman, seated left, is the manager of the Long-Bell store in Clovis, N. M. His brother, Joe, center, manages the Long-Bell store in Garden City, Kan, and brother, Jack, is manager at Altus, Okla. Father Kaufman is the manager of the Long-Bell retail outlet at Fairview, Okla. Long-Bell operates 119 retail lumber and building materials stores in Oklahoma, Texas, New Mexico, Kansas, Arkansas, Missouri, Colorado, Oregon, Washington and California.

Southern Pine Association Elects H. M. Seaman

M. SEAMAN, of Houston, Texas, was elected president of the Southern Pine Association at the 33rd annual convention conducted in New Orleans. Other (Continued to page 134)

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QUICK DELIVERY ON METAL DOORS

... Complete with frames and hardware already sized to fit!

Nothing else to order::: no waiting for other parts. You get them fast—you install them fast. No mortising, no drilling, no tapping, no prime coating. No wonder they save construction time and money!

LOW COST—standardization of types and sizes results in manufacturing economies. That's why Fenestra can do so much preliminary work on these doors at the factory and still offer them at prices below many doors now on the market. They're quality doors in every respect—worthy of the well-known Fenestra name.

ORDER THESE SIZES TODAY:

2'8" x 6'8" 3'0" x 7'0" 4'0" x 8'0" 2'8" x 7'0" 3'8" x 7'0" 5'0" x 10'0"

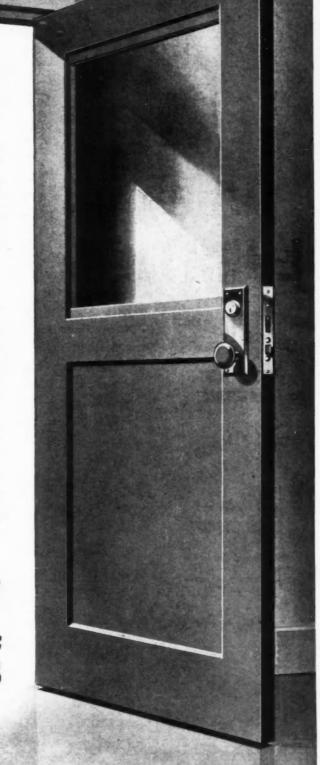
Standardization in these sizes enables your dealer to carry ample stocks. He can furnish doors right or left hand, with metal panel or glass, with or without muntin. Above sizes also available in pairs.

UNDERWRITERS' LABEL—Doors of same design are available with Underwriters' B Label.

For further information, call the nearest Fenestra office. Or write to Detroit Steel Products Company, Dept. AB-6, 2260 East Grand Blvd., Detroit 11, Mich.

Fenestra

METAL DOORS



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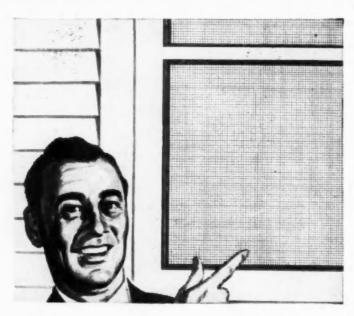
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Costs less-Lasts a Lifetime!



Amazing New LUMITE Screening

LASTS A LIFETIME!

NEVER NEEDS PAINTING!

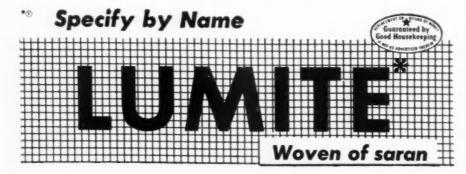
CAN'T CORRODE, RUST OR STAIN!

AMAZINGLY
INEXPENSIVE!

Sold through hardware, lumber and building supply dealers and screen manufacturers. No new house is really new if it isn't screened with LUMITE, the new, war-proved saran screening that's so tough and durable it will last as long as the house—costs less than any other quality screening. To make old houses modern, replace old screening with LUMITE that will never have to be replaced again.

Where salt air, moisture, or acid smoke are problems, LUMITE's the only answer. It can't rust, rot, corrode or stain in any weather or climate.

Write for samples to LUMITE DIVISION, Chicopee Manufacturing Corp., 47 Worth Street, New York 13, N. Y.



Dealer Review

(Continued from page 132)

officers names included E. O. Lightsey, Miley, S. C., first vice president; J. R. Bemis, Prescott, Ark., second vice president; W. T. Neal, Brewton, Ala., treasurer, and H. C. Berckes, New Orleans, La., secretary.

Principal topics considered at the meeting dealt with an expanded and more permanent southern pine industry through expansion of good forestry practices; increased



H. C. BERCKES, secretary, and H. M. Seaman, Houston, 1948 president of the Southern Pine Association

industrialization of the south through development of its forestry resources; closer cooperation between pulp, paper and lumber branches of the industry; more and better trade promotion backed by an accelerated program of mechanical efficiency, and an alertness in the field of transportation and labor information.

Southern California Dealer Met April 15 and 16

THE annual meeting of the Southern California Retail Lumber Association was conducted at the Biltmore Hotel, Los Angeles, April 15 and 16. An equipment and products exhibit in the Renaissance Room and the fover of the ballroom was a feature of the meeting. A record attendance provided good audiences for a roster of speakers which included such nationally-known individuals as DeLoss Walker, New York City: R. A. Tobias, H. D. Hudson Manufacturing Co., Chicago; Dr. Carl Hancey of U. S. C.; Joseph R. Jones, Los Angeles banker; C. A. Rishell, of Timber Engineering Co., Washington, D. C .: James R. Lunke, public relations counsel of Seattle, Wash.; Ivan G. McDaniel, attorney, Los Angeles, and Col. Roswell P. Rosengren, past president of the Junior Chamber of Commerce of the U.S.

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The Mueller Climatrol Type 202 Oil-Fired Winter Air Canditioner can be supplied with either a pressure atomizing at a vapolizing-type burner. Both the 202 and its companion 201 Gravity Furnace (above) are convertible to AGA-listed gas-fired units at low cost.

Modern Medicals

... turn out Mueller Climatrol Products that you can recommend with confidence and pride

If you could make a trip through Mueller's modern factory, you'd know why you can always count on Mueller Climatrol to deliver the superlative comfort home-owners want. The Mueller factory covers a broad expanse of over 15 acres. Every square foot is devoted to the manufacture of quality products by the latest methods and equipment — to give modern homes truly modern heating equipment — and to give your clients extra-dollar value.

The heart of this great modern plant is the Mueller Climatrol engineering laboratory. Its job is to keep Mueller Climatrol products in the lead. That standard has built the 91-year reputation of the Mueller name. That standard has kept Mueller Climatrol comfort a favorite in American homes.

Experience has taught you that you can chalk up another happy home every time a Mueller Climatrol is installed on your recommendation. That's because Mueller Climatrol delivers years of satisfying comfort with sound economy.

So recommend Mueller Climatrol for every job—it really pays! For additional information—write for bulletins today! L. J. Mueller Furnace Co., 2016 W. Oklahoma Ave., Milwaukee 7, Wis.





WELDWOOD FIREPROOF ...the only wood-faced door that gives all

Red Dowel

A red dowel, set into the stile edge band 4 inches from the top, permanently identifies all Weldwood Fireproof Flush Doors.

Fireproofed Edge Banding

Door is completely banded on all four edges with solid, fire-proofed hardwood that matches the faces.



Core of the door is the new incombustible Kaylo mineral insulation, manufactured by American Structural Products Co., subsidiary of Owens Illinois Glass Company.

Cross Banding

1/16" veneer cross banding is bonded to Kaylo core with Tego waterproof resinous phenolic glue.

Face Veneer

At present, handsome Birch veneer forms the hardwood faces. A wide variety of other decorative woods available on special order.



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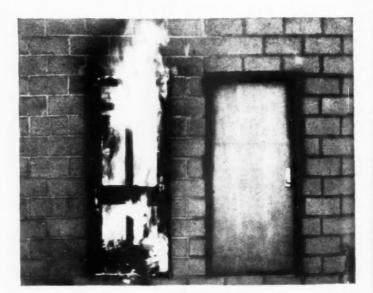
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Look at the superiority of Weldwood Fireproof Doors over conventional non-fireproof, 6-panel doors. After nine minutes and six seconds, panels of conventional door have burned through. In an actual building, the room behind the conventional door would already be a seething mass of flames.



Picture taken from the inside ten minutes after fire started shows absolute protection afforded by Weldwood Fireproof Door. After withstanding the intense fire for sixty minutes, the Weldwood Fireproof Door still prevented passage of fire, smoke, heat, gases and remained cool to the touch on the unexposed side.

This beautiful new Weldwood Fireproof flush door provides much-needed fire protection for office buildings, hotels, hospitals, schools, and other large public buildings. It is available in 134" thickness and in standard sizes.

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This metal label is tastened to the top edge of every Weldwood Fireproof Door.

Underwriters' Laboratories. Inc Inspected P FIRE DOOR FOR OPENING IN VERTICAL SHAFT

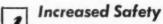
Weldwood Fireproof Doors bear the official label of the Underwriters' Laboratories (official testing agency for fire insurance underwriters).

They attained the one-hour fire rating by withstanding a free-burning fire for one hour, the ultimate temperature being 1700°. And after that, the impact of a 30-pound pressure hose stream, applied 20 feet from the fire side, for one minute.

Weldwood Fireproof Doors are a *must* for hospitals, schools, institutions, offices, and apartment buildings.

And these amazing doors are as beautiful as they are safe! They're dimensionally stable . . . stay straighter and are lighter in weight than other fireproof doors. The original cost is moderate, maintenance cost is practically non-existent, and Weldwood Fireproof Doors last for the life of the building.

Only the amazing new Weldwood Fireproof Door offers all those advantages! For additional information write to: United States Plywood Corporation, New York 18, N. Y.



The only wood-faced fireproof door which bears the Underwriters' label. All Weldwood Fireproof Doors are approved for class B openings.

Beauty

Because of their beautiful wood faces Weldwood Fireproof Doors harmonize perfectly with any decorative scheme. At present, Weldwood Fireproof Doors are faced with beautiful Birch veneer. A large variety of other handsome hardwood faces is also available on special order.

Durability

The Underwriters' Laboratories tested a Weldwood Fireproof Door for durability by mechanically opening and closing it 200,000 times. At the end of the test, the door was unaffected and still opened and closed perfectly.

Dimensional Stability

Weldwood Fireproof Doors are so dimensionally stable that we guarantee them against sticking in summer or rattling in winter due to any dimensional changes in the door.

Light Weight

At last . . . a really fireproof door that is not heavy or unwieldy. A child can open and close Weldwood Fireproof Doors with ease. A standard 3 x 7 door weighs approximately 80 lbs.

Vermin and Decay Proof

The mineral composition Kaylo core used in Weldwood Fireproof Doors is permanently resistant to fungus, decay, and termites. This superior and trouble-free door is made to *last!*

High Insulating Qualities

Another noteworthy characteristic of Kaylo insulation is its high insulating value over a wide range of temperatures. It is efficient against temperatures from freezing up to that of superheated steam.

Moderate Cost

Hospitals, schools, institutions, offices and apartment buildings cannot afford to be without the architectural beauty and absolute fire protection of Weldwood Fireproof Doors.

UNITED STATES PLYWOOD CORPORATION

Distributing units in Baltimore, Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Detroit, Fresno, High Point, Los Angeles, Milwaukee, Newark, New York, Oakland, Philadelphia, Pittsburgh, Portland, Ore.; Rochester, San Francisco, Scattle. Also U.S.-Mengel Plywoods, Inc. distributing units in Atlanta, Dallas, Houston, Texas; Jacksonville, Louisville, New Orleans, St. Louis, Tampa. In Canada: United States Plywood of Canada, Limited, Toronto.

55 West 44th Street, New York 18, N. Y.





Catalogs and

435 — FÉNESTRA BUILDING PANELS — for Up-To-Date Houses is the title of a new folder issued by Detroit Steel Products Co., 3101 Griffin St., Detroit 11, Mich. Fenestra steel panels combine joist, bridging and sub-flooring. How they can be used with radiant heating is one of the subjects discussed.

436—KITCHEN PLANNING CATALOG—is available from American Kitchens, Avco Manufacturing Corp., Connersville, Ind. Printed in full color and profusely illustrated, the catalog offers a wealth of information on kitchen designing including suggestions for adapting their factory-built kitchen package to remodeled kitchens.

437—RADIANT HEATING BOOK—titled "Capture the Sun With B&G Hydro-Flo Heating" describes in concise simple language the application of forced hot water to all forms of radiant heating. Published by Bell & Gossett Co., Morton Grove, Ill., the book offers suggestions on applying B&G equipment to radiators, convector, baseboard and radiant panels systems.

438—ASPHALT TILE FLOORING—for every type of installation is illustrated and described in an eight-page colorful brochure. Besides suggesting practical applications, the booklet features 22 patterns illustrated in color. Issued by the Mastic Tile Corp. of America, 153 West 57th St., New York 19, N.Y.

439—ELECTRIC WATER HEATERS—are the subject of a four-page folder released by the Automatic Electric Heater Co. Inc., Pottstown, Pa. The ten important

construction features of the units are pictured and described. Three models comprise the line: round, table top, and square. Each is pictured and specifications given.

440—ELECTRIC PLANTS—A new 16-page catalog prepared by D. W. Onan & Sons Inc., Minneapolis 5, Minn., describes low-cost electric power plants, tells when and where you need them, and offers advice on how to properly select a plant. Various models available are pictured. Important information on wattage requirements of appliances and motors is included.

SERVICE COUPON-CLIP and MAIL to CHICAGO

Readers Service Department American Builder,

(June, 1948)

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

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More than 15,000,000 feet already sold!

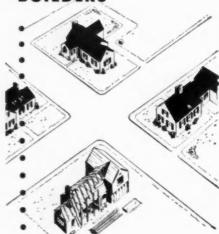
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REYNOLDS METALS COMPANY, BUILDING PRODUCTS DIVISION

Louisville 1, Ky.—Offices in 32 principal cities

Cabot's Creosote Stains

FOR DEVELOPMENT BUILDERS



- Cabot's Stains come in a
- wide color range . . . clear
- brilliant hues to weathering browns and grays. You'll
- find a pleasing variety of
- colors for any number or
- types of houses.

PRACTICALITY

- Cabot's Stains are made
- with a high proportion of
- undiluted creosote oil, the
- best wood preservative
- known. This means that
- shingles, clapboards, or
- siding treated with Cabot's
- Stains will have long lasting protection from decay.

ECONOMY

- Cabot's Stains cost less than
- half as much as good paint
- ... are quick and easy to apply . . . won't peel or
- o blister, even on green
- · lumber!

Write Today for color cards and complete information.

Samuel Cabot, Inc.

2225 Oliver Building Boston 9, Mass.



(Continued from page 118)

This article, the second in a series, gives recommendations of the Asphalt Roofing Industry Bureau for applying giant indi-vidual asphalt shingles

Dutch Lap Application

TANT individual asphalt shingles usually are applied by the Dutch lap method when re-roofing over an old roof surface. They should be used only on roofs having a vertical rise of 4 inches or more for each horizontal foot.

Before shingle application begins, the old surface must be prepared for the new covering. In the case of old wood shingles, this preparation includes removing loose and protruding tant when dormers or other obstructions interrupt shingle courses; chalk lines will insure that courses above an obstruction will line up properly with those to the sides of it.

The nails should be large-headed, sharp-pointed, hot galvanized wire nails with barbed shanks. When application is over old wood shingles, nails should be 134 inches long; over old asphalt shingles, 11/2 inches long.

Application of shingles can be

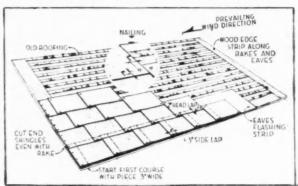


FIGURE 1.—Dutch lap application of giant individual asphalt shingles

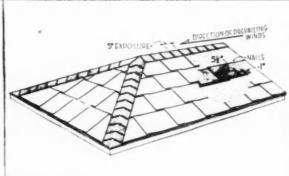


FIGURE 2.—Hip and ridge shingling with Dutch lap application

nails, replacing missing shingles, fastening loose shingles, splitting curled shingles and securing the segments, the use of "feathering strips," and sweeping the old roof clean.

After preparation of the old surface, an "eaves flashing strip" is applied. This consists of a strip of mineral surfaced roll roofing, laid to overhang the eaves from 3/8 to 1/2 inch and extending up the roof to a point at least 6 inches beyond the interior

Horizontal and vertical chalk lines always should be used for aligning roofing. They are especially imporfrom left to right or right to left, but never can begin in the center of a roof surface.

Each shingle is secured with two nails and one fastener. When laying from left to right, nails should be placed in the upper left corner and the lower right corner. Nail positions are reversed when laying from right to left.

The lower unnailed corner is secured to the overlapped portion of the adjacent shingle in the same course with a galvanized wire staple or copper clip, as furnished by the manu-

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Single houses or Multiple housing . . . both

are equally well served with the new JANITROL TRIPLE SERVICE SYSTEM



By providing all household needs for hot water and heating from a single Janitrol Unit, you gain many advantages.

Installation is simplified, costs held to a minimum. Extremely compact, units can be installed anywhere, no basement required. A complete factory tested package, proved in hundreds of applications.



For apartment buildings, a single Janitrol will serve 3 to 6 apartment units. Tenants can individually control the temperature of their apartment through a system of zone control. Oil or Gas-Fired the units are completely automatic, require no daily attention. 3 way Service

JANITROL TRIPLE SERVICE





Hot Water for Comfort Heating

Gas-Fired Units and all controls are fully A.G.A. approved and rated.

Hot Water at High Temperature for Kitchen or Laundry

The unit also provides a plentiful supply of high temperature water for the laundry and dishwashing.





Hot Water at Moderate Temperature for Shower and Lavatory

There's a ready supply of tempered bot water for the entire family's personal use.

COMBUSTION CORPORATION, TOLEDO 1, OHIO

BUILDERS! WRITE TODAY FOR COMPLETE SPECIFICATION DATA AND NAME OF LOCAL QUALIFIED JANITROL DEALER

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WERNER COMPANY.

Chrombin



(Continued from page 140) facturer. Never nail this corner down.

Dutch lap application of giant individual shingles is shown in Figure 1. For left to right application, the first course is started at the lower left corner of the roof surface with a piece of shingle 3 inches wide and 12 inches high. This piece is fastened with four nails, one in each corner, 1 inch in from each of the sides forming the corner.

The first full size shingle is placed in the corner between eaves and rake so that it covers the 3-inch-wide section and is flush with the rake and with the eaves flashing strip. The course is completed by laying full size shingles with their 16-inch dimension parallel to the eaves, each shingle lapped 3 inches over the preceding shingle and fastened as specified.

The second course is started with a shingle from which 3 inches has been cut off, placing it to lap 2 inches over the first course, flush with the rake edge and touching the vertical exposed edge of the second shingle in the first course. The course is continued with full size shingles.

The course is continued with full size shingles, always maintaining the 2-inch headlap and the 3-inch sidelap. Succeeding courses are started and continued in the same manner, except that the amount cut off the first shingle varies. The first and last shingle in each course is trimmed off even with the rake line.

Although most asphalt roofing manufacturers make special hip and ridge shingles, regular Dutch lap shingles can be used for this purpose.

When using regular shingles, bend each one down its center in order to have equal exposure on each side of the hip or ridge. In cold weather, warm shingle lightly before bending. Fasten each shingle with a nail on each side of the hip or ridge, 5½ inches from the exposed end and 1 inch from the side edge.

How to Frame a Typical Roof Three Different Ways

THE following roof framing suggestions are offered by Raymond R. Neal, Phoenix, Ariz.

(Continued to page 144)

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BUILDERS - Add Sales Appeal to Your Homes With . . .

LEIGH BUILT-IN MAIL BOXES!

These attractive mail receivers are actually less expensive than ordinary outside hanging mail boxes

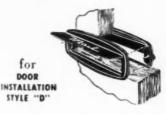


OUTSIDE DOOR

Note smart styling and heavy gauge construction



for WALL INSTALLATION STYLE "W"





LEIGH Built-in Mail Boxes are styled and designed to add beauty and convenience to any home — old or new.

Made in two styles — Style "D" (for door installation) quickly installed by cutting slot through door. Hood covers opening on inside of door.

Style "W", for wall installation consists of outside door, adjustable tin box and inside door.

Outside doors can be had in either heavy gauge steel or aluminum. Finish is dull brass enamel.

See your nearest dealer, or send for Catalog 47-L.



DEALERS If you are not handling the LEIGH line of packaged building products — write for the name of the nearest LEIGH Building Products Jobber.

BUILDING A Product of-

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OTHER



ORNAMENTAL METAL SHUTTERS



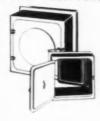
DUST CHUTES



VENTILATORS



PACKAGE AND MILK RECEIVERS



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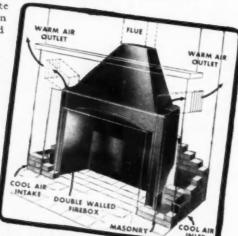
HEATILATOR FIREPLACES are easier to build . . . require a minimum of time, labor and material. The Heatilator is a complete fireplace form, with smoke dome, throat, downdraft baffle, and damper all built-in. You just place the Heatilator Unit in position and lay masonry around it—Heatilator's scientific design makes the fireplace right every time.

HEATILATOR FIREPLACES assure customer satisfaction. The purchaser is always pleased with a fireplace that draws properly and does not smoke . . . and is delighted with the extra benefit of circulated

heat. You not only eliminate fireplace complaints—you win actual boosters through good fireplaces.

STANDARDIZE ON HEATILATOR—PROVED BY OVER 20 YEARS' SUCCESSFUL USE ALL OVER THE U.S. AND CANADA.

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"Heatilator is the registered trade name of HEATILATOR, INC.

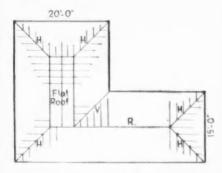
HEATILATOR FIREPLACE



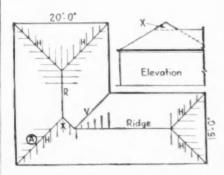
How-To-Do-It

(Continued from page 142)

Where the projecting wing is wider than the main body of the house, as the illustrations here indicate, there are three satisfactory ways to construct the roof.



In this drawing, the difference in the height of the respective roof slopes, is taken care of with a flat deck for the wing, which is flush with the ridge of the main roof. The flat deck is sloped slightly to allow for drainage. The span of the main roof can be used for figuring all hips, valleys and common rafters.



In the above drawing, all rafters and slopes of the main roof and wing are true to pitch, extending to respective ridges. The normal slope of a portion of the main roof at "X" will extend beyond the ridge line, thus forming a small hip to meet the difference in height of the two ridges. Special framing will be required at this point.

The problem of framing at the intersection of the two roof ridges can be simplified by cutting the hip rafter marked "A" the same as the hip rafter for the 20 foot span.

This next drawing shows the (Continued to page 146)

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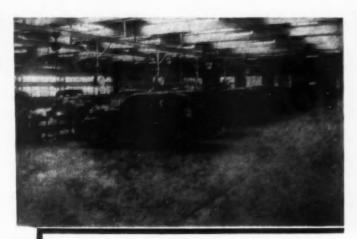
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as an.

DURAPLASTIC

IS EXCELLENT FOR FLOORS

Concrete made with Atlas Duraplastic air-entraining cement is easier to place and finish because it is more plastic and workable... more cohesive and more uniform.



IS HIGHLY ADAPTABLE FOR STRUCTURAL WORK

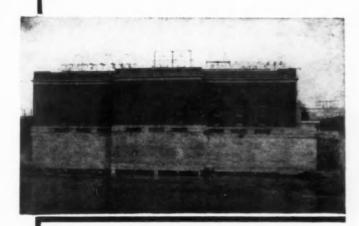
For example, this building has a fine stucco finish—made with Duraplastic cement. Stucco, slip-form, gunite, paving, structural or mass concrete—Duraplastic provides the proper amount of entrained air needed for satisfactory field performance.



AND IS MORE DURABLE under tough conditions

Duraplastic concrete provides added protection against exposure and the effects of freezing and thawing weather. It is more durable, yet no additional materials are needed—merely the same good workmanship regularly employed. Duraplastic costs no more than regular cement. It complies with ASTM and Federal specifications.

Write for further information. 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.

A8-D-63

ATLAS DURAPLASTIC

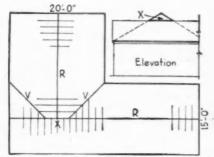
MAKES BETTER CONCRETE AT NO EXTRA COST





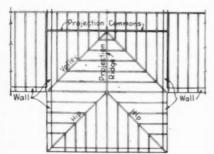


(Continued from page 144) roof framed in a gable treatment for the projecting wing and main roof. A small gable end, marked "X," is formed at the intersection



of the two ridges. This arrangement takes care of the difference in the height of the ridges. The two valley rafters marked "V" are cut for the 15 foot span.

How to Support Valley Rafters



THE drawing above illustrates an example of roof framing, as it can be applied to a bay projecting from the main walls of a house. To provide support for the valley rafters in the framing of the bay, a common rafter is placed under the valley rafters. This rafter extends from the side walls on both sides of the bay to the ridge line. Thus, needed support is given to the valley rafters to tie them together with the balance of roof framing.

An alternate means of support for valley rafters may be obtained from a partition placed close to the intersection of the valleys. Extend the common rafter from the partition to form the cantilever beam, which provide the necessary support.

(Continued to page 148)

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THORN ALUMINUM WINDOWS

A wide choice of standard types and sizes in both Double-hung and Casements provide just the right window in the right place.

Builders find the extra deep jamb of the Thorn Double-hung Window fits orthodox opening construction. It is economical to install, requiring no special skill and less plastering than any other type.

Thorn Double-hung Windows are completely assembled at the factory and fitted with built in stainless steel weatherstripping, and contain features found only in the most expensive windows.

These windows are really built for the finest, but priced for the most modest.

J. S. THORN COMPANY PHILADELPHIA 32, PENNA.

DO THESE

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JOBS AT LOWER
COST...WITH A

- 1. Measure from property lines
- 2. Stake out buildings
- 3. Lay out angles
- 4. Plumb vertical lines
- 5. Level up excavations for foundations
- Set grades for thresholds, sills, lintels, etc.
- Set slopes for drainage or sewage
- 8. Set stakes for grading
- Determine amounts of cut and fill
- Set concrete forms to line and grade

K#E BUILDERS' TRANSIT-LEVEL



YOU can do all of these jobs faster, more accurately and at lower cost with a K&E BUILDERS' TRANSIT-LEVEL. This easy-to-use instrument cuts out old fashioned, time-taking methods and streamlines the work. For instance, chalk line, line level, plumb bob and tape mean that your building mechanics must be constantly stopping. Time is lost from laying bricks, setting steel, carpentering—the jobs your men are hired to do.

So simple that any intelligent man can use them by following the instruction booklet, these instruments are built for years of rugged service, yet they retain their accuracy. Their quality is guaranteed by the K&E reputation and experience of 80 years of making equipment and materials for the engineers of America.

For details of the No. 5155 K&E BUILDERS' TRANSIT-LEVEL (a transit and a level in one instrument), the No. 5153 K&E BUILDERS' LEVEL or K&E Leveling Rods, write to your nearest K&E Distributor or to Keuffel & Esser Co., Hoboken, N. J.

Easy-to-follow instructions with each instrument.



KEUFFEL & ESSER CO.

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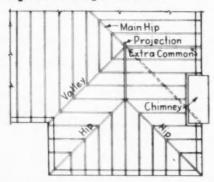
CHICAGO • ST. LOUIS • DETROIT • SAN FRANCISCO

LOS ANGELES • MONTREAL



(Continued from page 146)

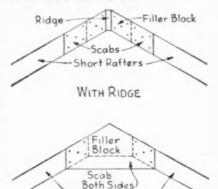
How to Frame Roof to Meet Special Requirements



IN THIS drawing, a projecting bay and fireplace break the normal flow of the roof lines of the main house. The ridge rafter of the bay intersects and extends about four inches beyond the main hip rafter.

An extra common rafter is placed against this intersection and extended down to the wall plate. The common rafter provides the necessary support for the main hip rafter that has been cut off to accommodate the projecting bay.

How to Save Rafters That Are Cut Too Short



Short Rafters
WITHOUT RIDGE

WHEN rafters are cut too short, filler blocks are added and additional scabs placed over the filler blocks and the short rafters.

In the second method, a single piece is scabbed across both joints on each side. The filler block thus forms the point of truss

SELL MORE

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INSULATION JOBS

AT MORE PROFIT PER JOB

Turn prospects into strong

booster-customers—sell rings around competition—learn

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Insulation." Pass it on to

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Cotton Insulation

Phenomenal increases in production and sales of Cotton Insulation...from 55,000 pounds in 1940 to 14,316,000 in 1947...prove its growing preference with home owners, builders, distributors and dealers throughout America!

Light, clean, easy to install...efficient, economical, flame-proof...Cotton Insulation is the best insulation value on the market! You'll find it easy to sell...generations of Americans have looked to Cotton as the fiber for long wear, for comfort, for ever-dependable service.

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COLUMBUS 8, OHIO

POWER TOOL and EQUIPMENT MANUFACTURERS' NAMES

Omitted from the May Issue

SEVERAL manufacturers of labor-saving power tools and equipment were unintentionally omitted from the roster published on page 75 of the May issue. They

Skilsaw, Inc., 5033 Elston Ave., Chicago, Ill.

Sterling Tool Products, 1334 Milwaukee Ave., Chicago, Ill.

Symonds Clamp & Manufacturing Co., 4261 W. Diversey Ave., Chicago, Ill.

R. G. LeTourneau, Inc., Peoria, Ill.

General Electric Names New Division Manager

GENERAL ELECTRIC has named F. C. Kurung manager of manufacturing for its automatic heating equipment division of the air conditioning department, G. R. Prout, vice president and general manager of the G. E. department, has announced.

House and Lot for \$7,700

(Continued from page 75)

was the closing fee and insurance which amounted to \$125. The monthly payments, including interest, principal, insurance and taxes, are \$49 per month.

"There has been much publicity about private enterprise building rental housing," Graves told us, "but if you will stop to analyze this particular development, it might be called a rental project as the down payment of \$125 is very meager, and the monthly payments much lower than a house such as this would rent for, if available.

"If this house were to be rented, it would bring \$65 or \$70 per month. By purchasing a home on this easy payment plan, it would seem that the veteran would have more pride in keeping the house and premises in good condition and would thus be a better citizen.

"If financing were to be continued in the same manner as last year, many more houses would be built, and the housing shortage would be whipped. Today, houses are being sold as rapidly as they are being completed, and we feel that there is a large enough demand to take up all that can be built for the next several years. With ample financing and less government interference, private industry can do the job necessary to provide ample and low-cost hous-

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1. Reflects Radiant Heat

2. Blocks Conduction and Convection

UP TO 70% MORE EFFICIENT

Greatest insulation development in 20 years, patented Cellulite-Silvercote combines two types of insulation in one new, doubly effective insulation. Unlike other insulations, which work only one of two ways, Cellulite-Silvercote works both ways:

1. Cellulite-Silvercote has a filler of fluffy, fibrous Cellulite that's up to 36 per cent more effective than other insulations in preventing heat transfer by conduction and convection.

2. Cellulite-Silvercote has two non-corrosive Silvercote membranes that reflect radiant heat with unsurpassed, permanent efficiency.

This new duplex action means up to 70 per cent greater effectiveness than any other insulation can give... the greatest insulation value on the market ... a K-Factor of 0.12.

Sturdy vapor barrier exceeds FHA requirements. Gilmanweld nailing flanges are extra strong to speed and simplify installation. Compact packaging of rolls means easy handling.

Cellulite-Silvercote is flameproof, moisture resistant, pest repellent; contains no irritating fibers, odors or dust.... is permanent — can't sag, settle or pack.

Write today for full information on Cellulite-Silvercote's greater values for you and your

customers. Cellulite sales have tripled in three years. It will pay you to ride the Cellulite-Silvercote bandwagon.

Wholesalers — Distributorships now available in some valuable territories. For details write or phone Main Office in Gilman, Conn., or sales offices in New York, Chicago, Tacoma, San Francisco or Los Angeles.

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Versatile



In construction products CECO ENGINEERING

is the word for

CECO STEEL CASEMENTS

For every home, no matter what the style or price, there is a Ceco casement that is just right. They work better than any other type of window—can't stick, warp, or swell. They look better, too—muntins are always at the same height, open or closed. Trim frame lines increase the light area. Controlled ventilation scoops up stray breezes. Precision engineering means tighter weatherseal. And they offer another convenience—screens and storm windows are put up from inside... no ladders to climb. The cost? Lowest of all, installed. Ceco steel casements are equally effective in all types of construction—solid masonry, brick veneer, frame, concrete block or any other material.

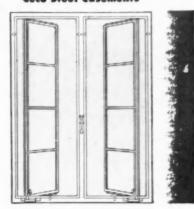
CECO STEEL PRODUCTS CORPORATION

GENERAL OFFICES: 5701 W. 26th Street, Chicago 50, Illinois

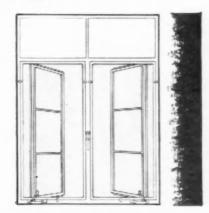
Offices, warehouses and fabricating plants in principal cities

See Ceco catalogs in Sweet's Architectural File or send for free descriptive literature

Two more of the many architectural effects with Ceco Steel Casements



This popular casement, type 2424, is used in all styles of residences, from the smallest to the largest. Immediately available from Ceco warehouses coast to coast. Window dimension is 3'1' wide x 4'2's,' high. Shown with screens.

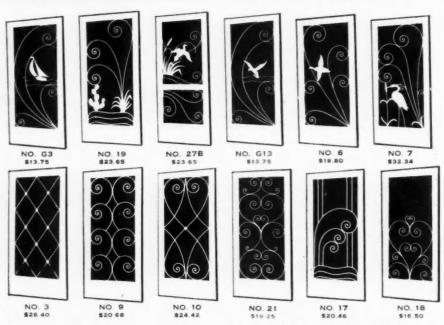


Hereisanother popular type, 2423. Notice the fixed transom above the ventilators to help with drapery problems. Window dimension is 3'1" wide x 4'25's" high. Illustrated with screens. In addition, many other types and sizes are available.



Partial list of other Ceco Products
STEEL JOISTS AND ROOF DECK
METAL WINDOWS AND DOORS
METAL FRAME SCREENS · ALUMINUM
STORM PANELS · METAL LATH AND
ACCESSORIES · HIGHWAY PRODUCTS
CORRUGATED ROOFING · LOUVRE
VENTILATORS

ORNAMENTAL IRON



Amounts shown are contractor prices F.O.B. Orlando, Florida.

DECORATIVE GRILLES *Make Homes More Attractive*

Any house can be "dressed up" for maximum "eye appeal" with Coffman hand-wrought screen door grilles. The cost is small. The beauty added increases the value of the house. Coffman grilles are practical, too—they save the screen, strengthen the frame. They are easy to buy; instantly available from stock; obtainable through building supply dealers.

Hand-Wrought Quality with Standardized Stock Economy

Despite the high quality of these hand-wrought iron grilles with their forge drawn points, graceful lines, and beautiful spirals—they are standardized for economy. Just check outside dimensions of your door and dimensions of your inside screen opening with stock size grille table below. For two panel doors or special sizes, information will be sent gladly upon request.

Typical Grille Sizes

| Di | mens | ions | Grill | e Sizes |
|----|------|--------|--------|---------|
| of | Door | O.A. | S.P. | Doors |
| 2' | 8" x | 6'/8" | 243/4" | × 65" |
| 3' | 0" x | 6'/8" | 283/4" | x 65" |
| | | 7' /0" | | ¥ 60" |

Look for the forge drawn tips on the inner ends of scrolls this is the mark of quality in Coffman ornamental iron.

DEALERS

Tear out this ad and use it as a catalogue sheet for your files. It presents briefly the popular Coffman line of screen door grilles. There is a wide market in the small home field for Coffman low cost handwrought ornamental iron. Porch posts, railings and brackets as well as grilles are in demand. If you are not now stocking this line, be sure to write for information.

Write for Catalogue of Designs, Sizes, and Prices.

Address Department AB



American Central to Increase Allocation of Kitchens for New Homes

AT THE recent 50th anniversary observance and distributor convention in Connersville, Ind., American Central Division-Avco Manufacturing Corp. announced a program intended to provide a major contribution to the construction of more new homes. Charles L. Stoup, sales manager for products, revealed that starting in September, 50 per cent of the division's greatly increased output would be allocated to new homes construction. This will amount to some 50,000 kitchens valued at \$25,000,000 annually. These kitchens will be sold through regular American Central distributors.

All orders for this type of new home business must be certified builders' orders and must include such information as the name of the builder involved, building project location, number and type of kitchens to be installed and delivery requirements.

"Orders specifying September and October deliveries," Stoup explained, "must be in our offices now as that is the time when we must purchase our September and October steel. November, December and January builder requirements must be in our hands by August 1."

Savings and Loan League Advocates Emphasis on Loans for Economy Houses

A NATIONWIDE drive to concentrate available credit on the building of new low-priced homes was launched in May by the United States Savings and Loan League.

Announcement of the program was made as the League's executive committee wound up its regular spring meeting. Chairman of the committee is Morton Bodfish, Chicago.

A statement of policy drafted by the executive committee called upon the League's 3,608 member savings and loan associations to channel from one and a half to two billion dollars in 1948 into the exclusive financing of new homes priced from \$4,000 to \$10,000.

The committee's statement said that up to 500,000 new homes in this price range may be provided for by this "preferential financing."

It called for preference to loan applicants who wish to build homes under \$10,000. This would attack housing inflation, the committee said, by concentrating more of the home building in the price range most needed.

"This increased supply of housing is the only effective remedy for high prices," the committee stated.

(Continued to page 156)

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NATIONAL heating products a family of PROFIT-BUILDERS

For easier sales, more and quicker profits, tie your heating activities to

the NATIONAL line-a family of leaders in customer acceptance.

NATIONAL CAST IRON HEAT EXTRACTORS

The features your customers want most economical heating, long, efficient service, smart appearance, easy convertibility to any fuelare the engineered results of over seven years of intensive research.



"100" SERIES. Smart and compact for small home installation in kitchens, basements or utility rooms.



"200" SERIES. Big boiler performance for homes of medium size and some commercial installa-



"300" SERIES. For larger homes, small apartments and various commercial installations where more heat is needed.

"400" SERIES. Designed for very large installations where plenty of heat is required to serve many purposes.



NATIONAL STEEL BOILERS

Their economy of first cost . . . installation . . . operation . . . and upkeep offers outstanding value for residential and commercial heating. Construction and performance meet or exceed all requirements of recognized authorities and



18" and 23" Series Steel Boilers are available in 5 sizes with oil or gas firing for small and medium size residential installations.

For larger homes, smaller apartments and small commercial buildings, 26", 29" and 39" Series Steel Boilers are designed for oil, stoker or gas firing.

And for still larger heating jobs, 16 sizes of Commercial Steel Boilers, designed for hand, stoker or oil firing, and ranging to 35,000 square feet of steam radiation, carry on the tradition of National engineering excellence.



... Everything you need!

No matter what size or type of building, there is NATIONAL equipment to heat it adequately, correctly. NATIONAL Oil Heating Units in cast iron or steel, Gas Boilers, Unit Heaters, Art Radiators, Aero Convectors or Fin-Tube Convectors, all carry the

JOHNSTOWN,

well known symbol of superioritythe NRC trademark.

For complete information call your nearest NRC district office or write to The National Radiator Company, 221 Central Avenue, Johnstown, Pa.



The NATIONAL RADIATOR Company PENNSYLVANIA Take the CRAWL out of building jobs

Let a good worker up off his knees and onto his feet. Give him a fast-cutting Stanley W8 Safety Saw... and stand back. See the job that was just crawling along really get going.

The W8 has a heat-treated aluminum alloy base for light, easy handling. Duplex handle, exclusive Stanley feature, with two independently operating trigger type, double-pole switches, provides comfortable grip in any position. Simple wing nut adjustment for depth of cut. Capacity: $2^{3}/4^{"}$. Tilting base permits bevel cuts up to $2^{1}/6^{"}$ at 45° angle. Combination rip and crosscut blade. Sealed ball bearings, self-lubricating. Operates on either A.C. or D.C. Write for full description. Sold by leading distributors. Stanley Electric Tool, 492 Myrtle St., New Britain, Connecticut.



HARDWARE - HAND TOOLS - ELECTRIC TOOLS

(Continued from page 154)

At present, the savings and loan and co-operative bank business finances one-third of the country's new home construction. Total resources of these savings associations approximate \$12 billion.

Bodfish termed the executive committee action "one of the most significant of recent developments affecting the nation's housing situation," and said the newly-inaugurated program will place League members squarely behind efforts to supply lower priced housing and ease the current shortage. He revealed that top officials of the League will meet with representatives of the savings and loan business throughout the country, and map plans as to how associations in different sections may participate in the financing program as outlined by the executive committee.

It was announced that literature prepared by the League, together with publications of the trade organization, will be aimed at acquainting the country's savings and loan executives with the program and why it is in the best interest of their communities.

The program established by the League will continue until the supply of medium and lower priced housing is believed adequate.

Students Compete for Best Shopping Center Design

A COMPETITION among students at architectural colleges for the design of a model "shopping center of the future," conducted by the Store Modernization Show in cooperation with the American Institute of Architects, has been announced by John W. H. Evans, managing director of the show. A committee of the AIA and retailing executives will judge the entries.

Twenty-two architectural colleges already have agreed to submit entries. There will be three prizes with cash awards of \$500, \$250 and \$125, respectively, and two honorable mentions, with awards of \$75 each. Models and drawings of winning entries will be exhibited first at the Store Modernization Show at Grand Central Palace, New York, July 6-10, and later may be sent on tour of chambers of commerce in key cities of the United States and Canada.

The problem is the unification, both in interior and exterior appearance, of a square block of retail stores into an ideal shopping center. The stores must be in an established commercial center of a city of approximately 75,000 inhabitants near each college campus.

The model "Shopping Center of (Continued to page 158) 0.18.

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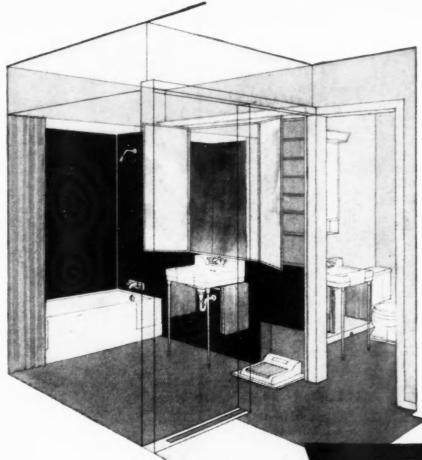
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Bathing and toilet facilities are separated in this new Crane bathroom. Twin lavatories make each section complete ... all fixtures from the Crane Oxford Group.

CRANE

.. always "most likely to succeed"

• It's hard to please Mr. and Mrs. Home Owner with everything you suggest. But nothing is so *likely* to succeed as Crane plumbing ... Crane is the name they themselves have chosen over all other plumbing brands.

Home owners like Crane quality, Crane styling. They like the completeness of line that gives them a style for their taste and a price for their budget.

Popularity... Quality... Completeness. All three are characteristic of the Crane line of bathroom, kitchen, and laundry fixtures. You can have Crane quality in heating, too—everything required for any system, any fuel.

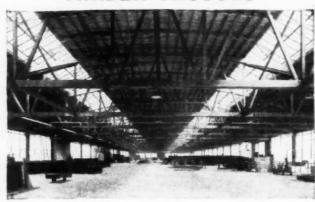
Your Sweet's Builders' File carries a representative selection of Crane plumbing and heating. Some fixtures are still more available than others—check your wants with your Crane branch or wholesaler.

CRANE

CRANE CO., GENERAL OFFICES: 836 S. MICHIGAN AVE., CHICAGO 5 PLUMBING AND HEATING VALVES • FITTINGS • PIPE

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS

A FINER BUILDING AT LOWER COST AMERICAN-BOWSTRING TIMBER TRUSSES



American Roof Trusses are economical for your factory, warehouse, garage, store, or whatever you may be building. They increase floor space by eliminating center walls and posts, and they cut building costs considerably. Made by the oldest, largest exclusive manufacturer of wood trusses in America. Immediate delivery.

Write for free catalog today.

AMERICAN ROOF TRUSS CO.

6852 STONY ISLAND AVE. CHICAGO 49, ILL. PLAZA 1772



235 W. 37TH PLACE LOS ANGELES 7, CALIF. ADAMS 3-4191

ESTABLISHED 1922

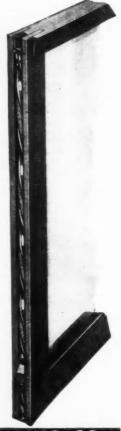


WINDOW MAGIC for MODERN CONSTRUCTION! IMPROVED DESIGN!

The best sash balance for modern window construction is now made even better! — stronger than ever and requires one-third less time to install.

Built-in stops, to prevent sash traveling too far, have been made stronger. No loose parts. Actuating bearing is longer and three times as heavy, for easier installation. The Rochester Spiral Sash Balance is completely concealed — there are no exposed tubes, ropes, tapes or cables. It's weather-tight — no pully-holes or weight boxes. And it's neat—top of sash stile groove is closed. No mortising, no adjusting, no rusting! Nothing to break! Efficient, modern, space-saving. And the Rochester Spiral Sash Balance still costs no more than old-fashioned balances.

Ask your jobber for complete information, or write direct for literature and detailed installation bulletin.





MILWAUKEE STAMPING CO.

Our 54th Year of Quality Production

802 5. 72nd STREET • MILWAUKEE 14, WISCONSIN

Amei

(Continued from page 156)
the Future" must include ten to
twelve medium-sized shops, a general
food store or supermarket, a department store, a newsreel theatre, a
restaurant and snack bar, a nursery,
a relaxation area for children and
adults, and a street-level parking
area.

"The creation of shopping centers on a community basis represents a great advance in city planning," Evans said, "From the standpoint of the consumer, the merchant, the owners of real property, and those charged with the even flow of traffic, shopping centers present the most economical and realistic solution to the problems of city growth. These centers present an answer to haphazard development not only from the standpoint of economics, but from the aspect of civic beauty as well.

"In setting up this architectural college competition, it is my desire not only to stimulate the thinking of architectural students in this important field," he said, "but also through them to interest civic groups in the need for this type of business community block-planning."

Vermiculite Institute Holds Annual Meeting

THE annual meeting of Vermiculite Institute, recently held at the Plaza Hotel, San Antonio, Texas, was attended by vermiculite processors from all sections of the United States and Canada. Practically every distributor in the industry was represented. Shelton W. Greer, Vermiculite Products Corp., Houston, and R. H. Rice, Mineral Products, San Antonio, acted as co-hosts.

At the business session, which opened the meeting, new officers of the Institute were elected as follows: president, L. J. Venard, Western Mineral Products Co., Minneapolis: treasurer, W. J. Bein, Zonolite Co., Chicago; executive secretary, E. R. Murphy, Vermiculite Institute headquarters, Evanston, Ill, The new board of directors are: W. J. Bein. Zonolite Co., Chicago, M. D. Muttart. Insulation Industries, Ltd., Edmonton, Alberta, Canada: R. H. Rice, Mineral Products, San Antonio; F. H. Robinson, Robinson Insulation Co., Great Falls, Mont.; L. J. Venard, Western Mineral Products Co., Min-

Two new and important committees were appointed: a planning committee of five members, with G. R. Stark, B. F. Nelson Manufacturing Co., Minneapolis, chairman: and a standardization committee, also five members, of which C. A. Pratt, West-

(Continued to page 162)

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You're Ahead



FIBERGLAS* INSULATION

Save scarce fuel . . . Insure comfort . . .
Insulate with FIBERGLAS

Owens-Corning Fiberglas Corporation, Dept. 2018, Toledo 1, Ohio

In Canada: Fiberglas Canada Ltd., Toronto, Ontario.



YOU'RE AHEAD ON PERFORMANCE

A highly efficient barrier to heat loss, the fibrous glass wool in FIBERGLAS Building Insulation won't rot, burn, disintegrate or pack down. Continuous vapor barrier on FIBERGLAS Roll Blankets guards against condensation.



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Available in convenient forms for every building application, FIBERGLAS is light in weight, easy to handle, easy to install. Compression packages simplify handling, cut costs.



3 YOU'RE AHEAD ON

Home buyers, architects, builders and lending agencies recognize FIBERGLAS as "quality", a sign of good construction. This contributes to quicker, more profitable sales.



YOU'RE AHEAD

Good insulation enhances the value of your houses, contributes surprisingly to the comfort and efficiency of a home, and satisfied owners are your best salesmen. Assure satisfaction . . . with FIBERGLAS.

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Fiberglas is the trade-mark (Reg. U. S. Pat. Off.) for a variety of products made of or with glass fibers by Owens-Corning Fiberglas Corporation



Take it from LEVITT and Sons.....

Here comes Levittown!

"Six thousand new dream homes going up in Long Island in one of the most ambitious home-building projects on record. And every one of them will be designed for better living, with G-E Appliances," says William J. Levitt, president of Levitt and Sons. Read this famous builder's comments on how electrical planning makes homes more livable—and salable!

"People want dream homes"

"It pays to build them," says William J. Levitt, president of the Company.

Let Mr. Levitt tell the whole story—"What do they mean by *dream* homes? Well, here is what we have discovered.

"A dream home is a house the buyer and his family will want to live in a long time—a house that makes living comfortable and easygoing by taking the chores out of running a home. That goes for cottages as well as for mansions.

- "And here's one more thing that's been proved in our experience—profitably!
- "The best way to build a dream house is first to make sure it's designed for better living, electrically! Because an electric kitchen-laundry is the one big item that gives the homeowner all the advantages and modern conveniences that can make his home truly livable.
- "That's the best way to make the house salable, too!
- "Make all these electrical conveniences a part of the package, included in the price.
- "And it will sell faster! Especially when you've included



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> Facts more co

G-E APPLIANCES make homes more livable—and salable!

General Electric Appliances—the ones most women want most because they've proved plenty dependable."

What About Small Builders?

Whether you're building ten houses or a hundred and more, you stand to sell quicker for more profit when you include G-E conveniences.

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Home builders everywhere have discovered G-E Appliances make more satisfied homeowners. They're not only dependable, efficient, but even more—economical. General Electric Appliances bring enough savings through low maintenance and running costs to actually make up for the small additional monthly payment—usually less than \$2.50.

Facts like that make for a lot less talking and a lot more conviction when you're selling a prospect. So-

for your next project—plan electrically with General Electric and profit more!

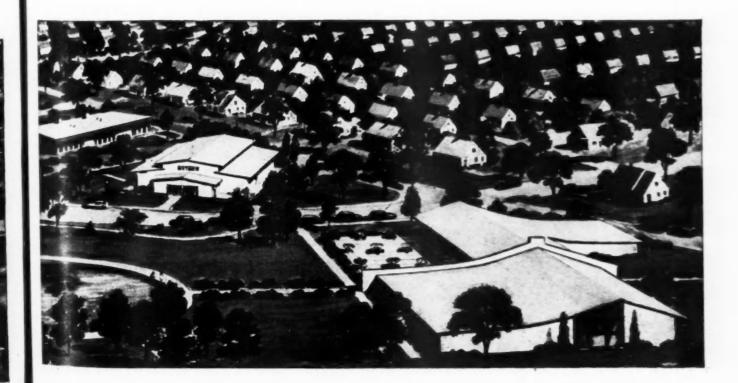
Learn the G-E Home Bureau Story

Contact your G-E distributor today. Or just drop a post card to the General Electric Company, Appliance and Merchandise Department, Bridgeport 2, Conn. Let us show you how to plan homes for better living, faster selling and bigger profits, electrically.

(Editor's Note): In a recent nationwide survey, 51 per cent of the men and 53 per cent of the women said General Electric makes the best electrical appliances!

The appliances most women want most

GENERAL ELECTRIC





Builders and home owners both appreciate VENTO quality. It's a line of steel casement windows that will bring you satisfied customers . . . and business-building prestige . . . for the years to come.



THE BUILDER likes to buy windows that are completely assembled, ready to install . . . that are sturdily constructed

of heavy section steel to stand rigidly in position during construction, and finally operate smoothly.

THE HOME OWNER—Likes the moderate price and enduring beauty of VENTO Windows . . less costly than wood



construction, better in quality than most steel windows. Fine quality workmanship down to the smallest detail has real significance to the man making a "life-time" decision.

Other VENTO features are: heavier construction than other steel windows of comparable price; electrically welded throughout; easily installed screening or storm sash; roto hardware, and locking device.

Write for price list and catalog . . . today!



VENTO STEEL PRODUCTS
COMPANY, INC.
24 7 Colorado Avenue
Buffalo 15 N. Y.

(Continued from page 158)

ern Mineral Products Co., is chairman. The planning committee will plan the testing program for Vermiculite Institute, and make recommendations regarding Institute specifications. This committee will also study and make recommendations for other organizational work. The standardization committee will study processing techniques throughout the industry, with a view of improving standardization of all vermiculite products.

Mueller Furnace Company Added to "Honor Roll"

THE L. J. Mueller Furnace Co. has been added to the "Honor Roll" of business firms throughout the United States, selected by the Brand Names Foundation to receive the "Certificate of Public Service" for the 91 years its brand name, "Mueller," has "held public confidence through unfailing integrity, reliable quality and fair prices."

The award was presented to H. P. Mueller, president of the Mueller Furnace Co., at a dinner sponsored by Brand Names Foundation at Hotel Schroeder in Milwaukee.

Only brand names which have been in continuous use for 50 years or more qualified for the award, which was created by the foundation to recognize the tested value of brand names.

Russell E. Dean Named Vice President of BMEA

AT THE annual meeting of the Building Material Exhibitors Association in April, officers elected included David S. Miller, Armstrong Cork Co., Lancaster, Pa., as vice president. Subsequent to the meeting Mr. Miller declined because circumstances made it impossible for him to serve. Russell E. Dean, sales manager of Bennett-Ireland. Inc., Norwich, N. Y., was named vice president and will serve for 1948. The complete roster of officers was published in the May American Builder.

More Sizes of Thermopane Insulating Glass Added

ADDITION of six standard sizes of Thermopane insulating glass for picture windows to meet an increasing demand for large size windows has been announced by Harry Ives, Thermopane manager for Libbey-Owens-Ford Glass Co.

Standardization of sizes was instituted some months ago to speed up fabrication and delivery of these window units which consist of two panes of glass separated by a dehydrated air space, sealed in by a metal-toglass bond.

SEPTIC TANKS



Two Sizes . . . 300 and 500 gallon capacity. 14 Gauge Steel, Black Asphalt Coating.

AVAILABLE FOR DELIVERY

Top quality steel tanks, fabricated by a manufacturer with over 55 years' experience. Write today for prices and complete delivery information.

BLACK, SIVALLS & BRYSON

24th Floor, Power and Light Building
KANSAS CITY 6, MISSOURI

Capacity, 275 gallons.

14 gauge black steel,
or aluminum . . Legs
not incl. ded.



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AMERICA'S GREATEST GARAGE DOOR VALUE



THE PROTECTION OF GALVANNEALING, added to the strength of steel, assures lifetime durability and makes this door an unequalled value (see illustration at right). Galvannealing provides a hot galvanized zinc coat for rust protection, PLUS high temperature heat treating that effects a perfect, permanent bond between base metal and zinc coat. Assures a smooth, uniformly coated surface and a clinging base for paint, without the need for a special priming coat.

BUILT FOR STRENGTH-welded all-steel one piece door leaf, and welded all-steel frame and braces, provide outstanding strength for a lifetime. (Steel will never sag, warp, shrink, swell or rot.)

OPERATES EASILY. A child can open the Strand Door. Simple, efficient hardware is designed for trouble-free service.

INSTALLED QUICKER- an experienced man can install the Strand Canopy Door in a prepared opening in minutes; the Receding (tracktype), too, is quickly and easily installed.

AMERICA'S GREATEST GARAGE DOOR VALUE-Give your customers the durability and performance of this galvannealed steel door-at an amazingly low price. This is the result of volume production in one plant and standardization on two models.

Strand Doors are available without waiting and without limit. Order today from your dealer, or mail the coupon, giving dealer's name.



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. RECEDING (TRACK) AND CANOPY

STRAND BUILDING PRODUCTS COMPANY Dept. AB6, 1710 Buhl Bldg., Detroit 26, Mich.

Please rush literature with detailed descriptions of Strand all-steel Garage Doors.

I am a () Builder, () Dealer, () Prospective Owner,

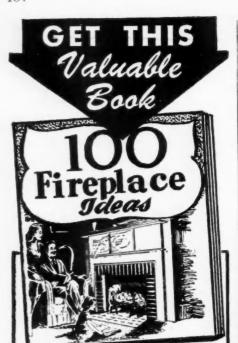
() Other

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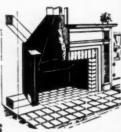
With it You Help Owners to Decide

on the design and materials for their fireplaces. Covers the entire field — from classical to ultramodern — in a wide variety of materials.

Any of these designs lends itself to the use of a heat-circulating fireplace — built around the

Fyro-Place

Cuts
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FYRO-PLACE, the improved Steel Form, saves up to 16 hours labor, plus damper, firebrick, etc. — more than offsetting its cost.

The owner gets a warm-air-circulating fireplace instead of a smoky, drafty, old-fashioned one — at no greater cost. He becomes a satisfied booster for you.

Send today for this Valuable Book "100 Fireplace Ideas"

PRICE FIREPLACE HEATER
& TANK CORPORATION
2 Austin Street Buffalo 7, New York

New Aluminum Roofing, Siding, Incorporates Beauty and Economy

NEW Kaiser Aluminum roofing and siding, made by Permanente Metals Corp., Oakland, Calif., can be applied over existing



CORNER flashing gives water tight joint

wood sheathing, wood clapboard, or stucco for rebuilding purposes. On new dwellings, it can be nailed directly to the studs, and requires no sheathing other than standard building paper. This makes the aluminum material economical to use.

Among outstanding features of the siding and roofing, are maximum strength, rigidity, and deep shadow lines achieved by concave



SAW easily cuts aluminum materials

surfaces. Produced in standard lengths of 10, 12, 14, and 16 feet, it is applied to the building from top to bottom. Each section locks with spring a ction to attain weather-tightness and uniform appearance.

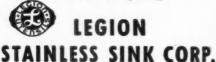
At the lower side of each piece of siding and roofing, elongated (Continued to page 166)



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



21-13 40th Avenue, Long Island City 1, N. Y.



THERE IS ONLY ONE CLIPPER BLOWER FOR KITCHEN CEILING VENTILATION

This patented, proven Clipper Kitchen Ventilator mounts between ceiling joists directly above the stove, and is vented out-of-doors. The powerful squirrel cage blower (not a fan) creates a stream of fast-moving pressure-charged air which keeps kitchens free of cooking grease, heat and odors. Also for dens, bathrooms, laundries and other small rooms. Specify the Clipper and be sure of adequate

ventilation. Stocked and sold by electrical dealers coast to coast. Write us today for complete details.

The Clipper is easily installed in the ceiling and vented through a side wall or roof as shown at left.

Trade-Wind Motorfans, Inc. 5705 S. Main St., Los Angeles 37, Calif. Send complete information on the Clipper

Address

MARS



BUILDER BREAK

You'll please your customers—and make your work easier and more profitable—if you plan on Marlite plastic-finished wall and ceiling panels to create interiors of sparkling beauty and economical utility.

Your customers like Marlite for its gleaming beauty and the ease with which it can be kept sparkling clean and lustrous—its sealed surface is the reason!

And you'll like Marlite because these wall-size panels go up quickly and easily over new walls or old, provide an opportunity to increase your business and profits on new construction and modernization. And, because Marlite is adaptable to every type of building, domestic and commercial, where sanitary, colorful walls and ceilings are needed, you'll find Marlite opens up countless new business opportunities for you.



EASY TO INSTALL—you can do the entire job with regular

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SUITABLE FOR COMMERCIAL OR DOMESTIC BUILDINGScarpenter's tools. wherever beautiful, serviceable interiors are required.

EQUALLY EFFECTIVE IN NEW CONSTRUCTION OR

MODERNIZATION. ADAPTABLE TO MANY USES-Walls, ceilings, counters, bars, etc.

SOLD BY LEADING DEALERS EVERYWHERE. PART OF A COMPLETE LINE OF WALL PRODUCTS. PUT THESE OTHER MARSH PRODUCTS TO WORK FOR YOU

MARSH MOULDINGS

MARSH ADHESIVES

MARSH BATHROOM ACCESSORIES

MARLITE POLISH

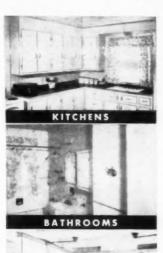
MARSH CAULKING

plan on narlite



Complete
Information
Will Be Found
In SWEET'S FILE
for BUILDERS

MARSH WALL PRODUCTS, INC., 603 Main Street, Dover, Ohio















(Continued from page 164) holes are pre-punched for nailing. This was done to save time in construction and to allow for contraction and expansion.

Both the siding and the roofing can be erected by carpenters with regular wood tools. Though the materials are erected by the use of nails, the nails will not show because they are covered by the joints.

The sections easily take finishing coats of paint. All of the siding

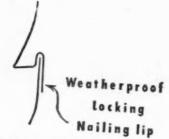


BUTT JOINTS held with back-up plates

material is given a zinc chromate prime coat before shipment from the mill, and any house paint can be used on the metal finish.

The tension-seal roofing, which also incorporates the curved surface, is supplied unpainted to take advantage of the heat reflectivity of aluminum. The roofing is laid on in long horizontal strips.

Permanente's announcement of their new products culminates a two-year search by that company's engineers for a practical type alu-



JOINTS are locked by spring-tension

minum roofing and siding. Permanente's Trentwood mill at Spokane, Wash., has been equipped with special roll-forming machinery to produce the new siding and roofing, and plant shipments started on a national scale last

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The material is shipped in boxes, each containing 200 base square feet, weighing approximately 106 pounds.

Kaiser Aluminum's new line also includes window flashings, door openings, and corner trims.

57... EASY TO HAN HERE'S WHAT YOU GET . . .

OLSON

- FEATHERWEIGHT ALUMI-NUM FRAME-all webbed -with heavy gusset plates
- SILENT, JAMB-TYPE HARDWARE-constantly balanced-easy to install and adjust
- KIT COMPLETE-simply apply facing and hang.

1

FINISH QUICKLY WITH MATERIALS ON HAND!

Rugged, extruded, aluminum frame strip-punched for quick, easy facing with plywood, presdwood etc. Panels screw into place. With 1/2" plywood weighs ap-With 1/2" plywood weighs approximately 95 lbs. Can be finished attractively in wide variety of styles.

Aluminum frame provides required strength . . . holds weight to minimum.

Easy to install . . . easy to operate

Floating balance . . . adjustable . . . stop door at any point.

-no sag-no warp . unaffected by weather conditions

READY BUILT: THE OLSON

Sturdy, one-unit. fool-proof overhead garage door . ne man installs in little over an hour. Fits standard open--50 lb.b.—ready Complete hang.

with Floating-Bal-ance, Finger-tip control hardware. MODERN-FUNCTIONAL

SIMPLE TRIM GIVES

APPEARANCE

FASILY STYLED TO MATCH

GARAGE DOOR

WRITE TODAY

for prices and further ils! Some distributor

MANUFACTURING CO. • OMAHA 5, NEBRASKA

BETTER BRICKWORK is EASIER with BRIXMENT!

Full mortar joints are one of the best possible precautions against leaky brick walls. When cross joints and head joints are not *completely* filled with mortar, in both face brick and back-up work, water may penetrate to the inside of the wall, through openings in the joints.

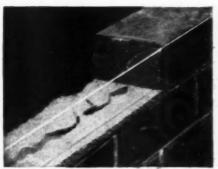
HEAD JOINTS



Slushing does not properly fill the voids in the head joints.



When mortar is spotted on only one corner of the brick, slushing seldom fills the voids.



Even when mortar is spotted on both corners of the brick, slushing will not always fill the voids.

CROSS JOINTS

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When mortar is spotted on both corners of the header brick.



there is nowhere near enough mortar in the



Slushing will not fill the voids.

Poor workmanship like that shown above is the result of (1) excessive speed in laying the brick or (2) the fact that the mortar is so poor and lean as to make better workmanship too difficult.

Brixment makes this kind of workmanship unnecessary. It is rich, plastic, and has high water-retaining capacity. It works almost as easy as straight lime putty. In addition, it has better bonding quality and greater resistance to freezing and thawing. It is this *combination* of advantages that makes Brixment the leading masonry cement on the market.

LOUISVILLE CEMENT COMPANY, Incorporated, LOUISVILLE, KENTUCKY

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Aeropel

women



SPECIFY THE MODERN. TROUBLE-FREE UNIT HEATER

Year around utility, plus complete and automatic control of heating, feature Reznor gas fired unit heater installations. Specific areas can be comfort-regulated to requirements . . . no need to heat all of partially used buildings to bring heat to sections in use ... just cut in Reznor units as needed.

EASY INSTALLATION

Installation is easy and fast. Install the heaters-pipe the gas-connect the electric service, and the best obtainable automatic heating system is ready for service.

Reznor heaters are designed to be used with natural, manufactured, and liquid petroleum gases. Write today.

REZNOR SPECIAL HEAT EXCHANGER AND BIG. QUIET FAN DELIVER MORE HEAT FROM FUEL



Kitchen Cabinet Institute Elects New President

HARVEY G. KNUTH, manager of the kitchen cabinet division of Lyon Metal Products, Aurora, Ill., has been elected president of the Steel Kitchen Institute. Knuth was elected at the two-day meeting held recently at the Congress hotel in Chicago. Previous to his election as president, Knuth served as chairman of the



HARVEY G. KNUTH

standardization committee in 1940. 1941 and 1947. He was also a member of the board of directors.

The Steel Kitchen Cabinet Institute is a national group of manufacturers organized to maintain a high quality standard in steel kitchen cabinets. The approved seal of the organization may be carried on only those cabinets that have passed rigid tests specified by the Institute. National headquarters are in Cleveland, Ohio.

AIA, AGC, Will Jointly Study Building Problems

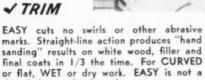
THE American Institute of Architects and The Associated General Contractors of America have established a joint committee which will consider problems in building construction of mutual concern to architects, contractors, and the public.

The committee will be known as the National Joint Cooperative Committee of the AIA and the AGC.

For a number of years the two associations have worked constructively together on such matters as standard contract provisions, simplified specifications, and recommended bidding practices. Recently, the architects and the contractors jointly developed and published "A Suggested Guide to Bidding Procedure" which, in the interest of the public, established standards for obtaining bids that eliminate waste and misunderstanding that might lead to unexpected costs for

HOW TO GET A Smooth HAND FINISH WITHOUT Costly **HAND LABOR**

- **✓** CABINETS
- ~ DOORS
- **✓** MANTELS
- **✓** TREADS
- ✓ TRIM



Write for literature. DETROIT SURFACING MACHINE CO.

disc, belt or orbital sander.

7458 West Davison Detroit 4, Michigan





For Windows Everywhere

Worried over high construction costs? Save dollars per opening and time on the job with Vikre New Economy Sash Holders.

No weights—no cords—no mortising. Just drill one hole, that's all. No drafty weight pockets to give you insulation headaches.

For oversize windows, or where prolonged hard usage is expected, Vikre Heavy Duty Sash Holders do the job. Easy to install. Once adjusted, they require no more attention. Use them wherever there are windows and for windows everywhere.

Tested and proved for years on thousands of construction jobs, Vikre Sash Holders are available through your building supply dealer. For full details write:

J. N. VIKRE CO. 3016 14th Ave. 5. . Minneapolis, Minn.



Build your reputation well— Be smart! Install Aeropel!

NEW LOW-COST KITCHEN FAN









SEE the difference!

Aeropel adds beauty to a kitchen . . . gives it that new modern look which makes women want to buy the houses you build.

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HEAR the difference!

Whisper-quiet operation of Aeropel wins approval of women and men, too. Makes them say, "There's a thoughtful builder."

FEEL the difference!

Aeropel really whisks disagreeable kitchen odors out fast . . . keeps kitchens fresh as a daisy . . . helps close sales for new houses.

Yes, you can see, hear and feel the difference between Aeropel and ordinary kitchen ventilating fans.

That's why more and more smart builders, men who want quick sales for their houses, are installing Aeropel.

Put a feather in your cap with prospects, build lasting good will with buyers (and add to your profits) by featuring Aeropel in your new houses.

National magazine advertising, newspaper, radio and television programs are building a big acceptance for Aeropel.

AMERICAN BLOWER

Cash in NOW. Ask your supply house. If they cannot fill your needs, call our nearest Branch Office or mail coupon.

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CANADIAN SIROCCO COMPANY, LTD., WINDSOR, ONT.

Division of American Radiator & Standard Sanitary confeation

AMERICAN BLOWER CORPORATION Detroit 32, Michigan

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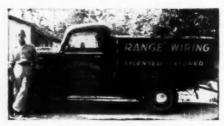
TOUCH-PLATE

America's Ginest Light Control System

IN NEW RESIDENTIAL DEVELOPMENT



Parker Construction Company's 32-unit bousing development at Pomona, California, features the Touch-Plate System of low voltage remote control lighting.



Vic Bougherg, electrical contractor for the Parker Pomona development, installed Touch-Plates throughout the 5room homes for added beauty, safety and convenience.



MORE SWITCHES BETTER SWITCHES

AGENTS

Harry Q. Beven-Milwaukee. A. Lee Clifford & Co.-Indianapolis. R. H. Cupples -Minneapolis. Glidden Engr. & Equip. Co. —Houston, Dallas, San Antonio. R. A. Hanke & Co.—Chicago. H. M. Hemphill & Co.—Detroit. E. M. Paullin Equip. Co.— Buffalo. J. O. Schmitz Co.—Kansas City. St. Louis. Wagner-Green Co.—Cleveland.
A. D. Stein, Inc.—New England States.
Wm. B. Bleiman & Son—Philadelphia.
Fred G. Kraut & Son—New York City.
Pacific Electro Sales—Los Angeles, San
Francisco, Portland, Seattle, Salt Lake City.



Rheem Company Names New Manager of Stoker Sales

RHEEM Manufacturing Company has appointed T. O. Lawler, veteran coal heating man, manager of stoker sales, according to an announcement made by C. T. Miller, assistant general sales manager. The company manufactures both



T. O. LAWLER

industrial and domestic stokers and stoker-fired furnaces.

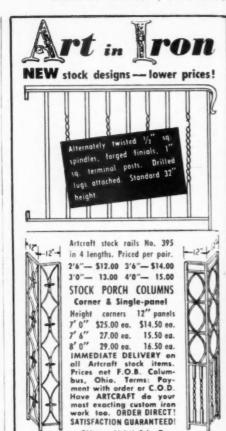
Lawler for nearly ten years was with Fairbanks-Morse for whom he pioneered an anthracite burner. He studied engineering at Rennsalaer Polytechnic Institute and for many years was associated with various railroads and the D. L. & W. Coal Co., promoting the use of both anthracite and bituminous coal. Most recently he was with A. O. Smith. He will make his headquarters in the company's Chicago office.

Industry Facts Find Ready Acceptance

THE drive to get construction facts-of-life across to the general public has been put into high gear, and results of the newly-announced industry campaign are beginning to appear. Initial distribution of pamphlets, speeches, press releases, and other material has been started, and the sponsors-the Construction Industry Information Committee-report encouraging reception by the industry.

Under the direction of Chairman Melvin H. Baker, president of the National Gypsum Co., the committee emphasized the industry's current record-smashing housing volume in the first economic study it released, entitled, "Who Can Afford Our New Housing?"

The second study will tell the story of the tremendous come-back in construction of all types, and the rapid increase in production of (Continued to page 172)



Ohioans add 3 % Sales Tax No. 20 Write for our new 36 page catalogue

ARTCRAFT Ornamental Iron Co. 724 E. Hudson St. Columbus 11, Ohio



Beauty on a Budget

CURTIS



Here is a splendid example of the type of doorway often seen on Pennsylvania Colonial bomes. It is suitable for bouses of any structural material, Design C-1733.



With its interesting lattice, this Curtis entrance is especially suited to the small bome. Note the sheltering protective bood. Design C-1767.

• Good taste—enduring beauty—need not bear a high price tag, when you choose Curtis Woodwork for the houses you plan and build. Curtis Woodwork provides distinction and livability even when the building budget is strictly limited—and Curtis standards of quality assure lasting value for the owner. Examples on this page—chosen from among the wide range of Curtis designs—will prove the case.

When in New York, visit the Curtis Woodwork Display at Architects' Samples Corporation, 101 Park Ave.



Built-in furniture of good design adds permanent charm and value to any house. This simple, yet charming, Curtic cabinet—design C-6526—is made for corner use also.

Steel

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"Utility made beautiful" is a fitting description for this Curtis cabinet for books, chinaware or collections. Easily installed in old or new bomes, Design C-6503.



A late eighteenth century mantel—adapted from one in the old Lee House at Marblehead, Mass. Note the unusual shape of the fascia board. Fits any traditional style architecture. Design C-6063.



There's a "homey" air about this wellproportioned mantel—a new design by Curtis. Nearly all Curtis mantels are supplied with adjustable architrave an aid in planning. Design C-6040.

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MOST POWERFUL PORTABLE ELECTRIC GUIDED SAW

CUT WET or DRY using Diamond or Abrasive Wheels

> **Check These Times** for Cutting

- . 8 inch Building Brick 12 to 18 seconds
- per cut
 1 inch Marble 3 feet per minute
- Granite 3 to 4 seconds per square inch
- 3 inch Hard Concrete flooring 1 foot per minute
- · 4 inch Steel Channel 30 seconds per cut
- 3 inch I Beam 40 seconds per cut
- · 3 inch Cast Iron Pipe 20 seconds per
- · Also cuts concrete blocks, tile, terrazzo, marble, slate, asbestos products, refrac-tories, 7 to 10 times faster.

WEIGHING ONLY 78 LBS., The Stone Blue Streak is rated 21/2 H.P.- 110 universal or 220-single phase. Will cut 5-inch depth of cut and up to 10 feet in length using a 14-inch wheel.

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STONE MACHINERY CO., INC.

Dept. A6 Box 1363 Syracuse, N.Y.



HIGH SPEED CUTTING MACHINERY

(Continued from page 170) building materials from war-re-

stricted output figures.

In this connection, the committee reveals that materials producers expect in 1948 to exceed the recordbreaking production of 1947 if current demand is maintained. Production of building materials during 1948 in practically all categories promises to be sufficient, or more than sufficient, to meet anticipated demand, the committee states.

In addition to giving facts to the general public, through the press and otherwise, the committee is preparing pamphlets and speeches, based on its economic studies, which will be distributed throughout the building industry with the aid of industry trade associations. A separate pamphlet is written for each participating industry branch, so that everyone in the building business from top to bottom will know the story of his industry's accomplishment and can help spread the story to the public.

N. Y. Plumbers Accept Wage Stabilization, Use of Power Tools on All Jobs

WAGE stabilization for plumbers and complete mechanization of the plumbing industry in New York City has been announced. The agreement is expected to increase man-hour productivity, reduce costs and create wider employment by encouraging a higher level of building.

The agreement freezing wages, hours and working conditions from May 1, 1948, to June 30, 1950, was announced jointly by Eugene Duklauer, president of the Association of Contracting Plumbers of New York City, and William T. Dodd, president of Local No. 2, United Association of Plumbers. The stabilization agreement, covering 4,500 journeymen plumbers in Manhattan and the Bronx, also has been accepted by the Metropolitan Master Plumbers, Inc. of the Bronx and will cover approximately 400 independent plumbing contractors. Brooklyn and Queens union plumbers have a separate agreement with contractors which runs until April, 1950.

HHFA Law Division Makes Chart On Housing Finance

A 10-PAGE chart, giving a comparative outline of the principal provisions of state statutes authorizing direct or equity investment in

(Continued to page 174)



ONE-BORE LATCH

Automatic **PUSH or PULL** ACTION

Push the handle if the door swings away from you; pull it if the door swings toward from you; pull it if the quor swings of the you. That's the simple principle of the Ideal Latch for screen and storm doors, as well as many other applications. New '48 model includes latching action in the strike ... silent operating ... easier latching ... stronger handle. Trouble-free—absolutely guaranteed against breakage regardless of guaranteed against breakage regardless of cause. Requires no mortising—just bore one hole and insert 6 screws. Available with or without locking lever. Handles furnished in cast, brass, bronze and alu-minum. Also latch with stamped steel han-dle manufactured as previously. Ask your jobber, or write for literature. jobber, or write for literature.

Display Models For Dealers Ask Your Jobber

250 EAST FIFTH STREET ST. PAUL 1, MINNESOTA

Non-Mortise DOOR LATCH

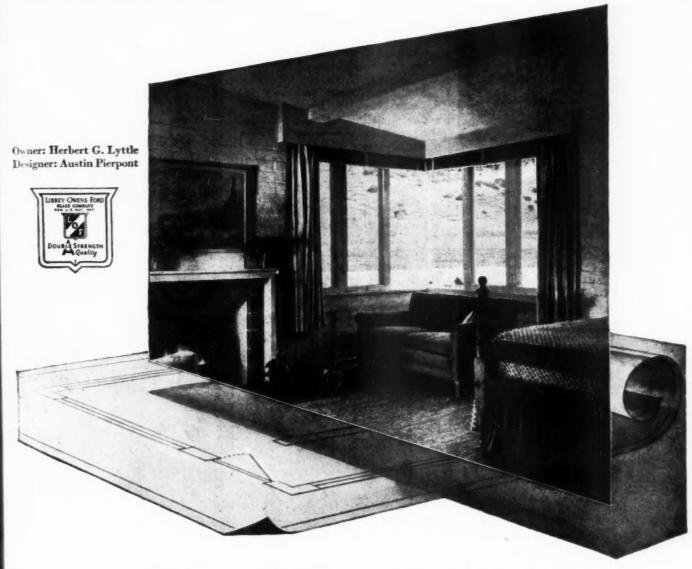


The IVES Non-Mortise Latch is as easy to install as a rim latch — as neat as a mortise lock. It is made in brass or steel and is now available for prompt delivery. It is unsurpassed for easy latching and features attractive cast handles . . . longer spindle which adjusts automatically for %" to 1 %" doors and can be adjusted to 1%" . . . improved strike allows for sagging of door.

See your Jobber

NEW HAVEN, CONN. Quality Hardware SINCE 1876

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You're Selling Sunshine!

Sunshine is never out of style! And when you include plenty of window space in your houses as a built-in sunshine feature, you score an important point with prospective buyers. Glass does a lot more to enhance a home. Wide glass areas give even small rooms an expansive look...let occupants enjoy the ever changing panorama of the seasons.

You gain an additional selling advantage when the window glass you use bears the L·O·F label. It assures buyers that you have used better, clearer glass... and marks you as one who handles only top quality materials. Libbey·Owens·Ford Glass Company, 6168 Nicholas Building, Toledo 3, Ohio.

L'O·F also makes polished plate glass, safety glass, colorful Vitrolite* glass facing, Tuf-flex* tempered plate glass and other flat glasses. Only Libbey Owens Ford makes Thermopane*—the first mass-produced insulating windowpane.

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LIBBEY · OWENS · FORD

a Great Name in GLASS

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SASH BALANCE COMPANY

Los Angeles 21, Calif.

Beach Ave.

1626 Long

(Continued from page 172) housing by various types of financial institutions has been prepared by the Division of Law of the Housing and Home Agency in

Washington, D. C.

The digest covers authority under state laws for insurance companies, building and loan associations, and savings banks to make direct or equity investments in the ownership and operation, or construction and sale, of housing accommodations.

National Radiator Elects New Sales Vice President

ROBERT S. WATERS, president of the National Radiator Co., Johnstown, Pa., has announced the election of John C. Barnes as vice president for sales.

Barnes was a former sales manager of the company's Washington and Philadelphia branch offices, re-



JOHN C. BARNES

spectively, and has been associated with the firm since 1940.

Prior to becoming affiliated with the National Radiator Co., Barnes was associated with Montgomery Ward and Company, Inc., in the engineering department and later as assistant sales manager of their Baltimore branch.

F. W. Ramsey to Head Foreign Liquidation Group

RED W. RAMSEY, a member of the board of directors and past president of Perfection Stove Co., has been named to head the Foreign Liquidation Commission of the United States State Department. With his wife, Ramsey is now in Paris, Later, he will journey to Frankfort and Berlin.

Ramsey started with Perfection Stove Co, as a stock boy when he was 15 years old. Twenty-three years later, he was elected to the presidency of the company. He retired after four years in office to devote his time to philanthropic and welfare activities.

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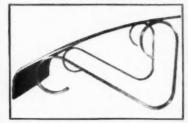
LUMI-SHADE is designed for houses, apartments, store fronts, office buildings and factories.



The simplicity and beauty of its streamline design makes

LUMI-SHADE

A SELL ON SIGHT PRODUCT



LUMI-SHADE is constructed of sturdy aluminum. Rigidly tested for stress and strain, gives outstanding protection against any kind of weather and is a permanent part of the building. LUMI-SHADE comes unpainted or in baked enamel, green, blue, and dubonnet. Baked in infrared ovens, for durable surface and real beauty.

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NOW! EVERY LOW-COST HOUSE CAN HAVE REAL COPPER FLASHING!



REVERE HOME FLASHING SYSTEM

LOW IN COST! HIGH IN QUALITY!

TITH the low-cost, easy-to-apply Revere Home Flashing System you can provide lasting protection at all the vital joints of even the most moderately priced houses. This new system is based on a special gauge, special temper and special size of sheet copper intended exclusively for flashing low-cost houses. In addition, Revere has developed simple and economical methods of application.

This Revere Home Flashing System is packaged, complete, and ready to use. Each package contains: (1) 10 sheets of special-temper sheet copper pre-cut to 18" x 48", the right size for easy handling and economical installation; (2) a 16-page instruction book that clearly shows—in words and pictures—the best way to install flashing around doors, windows, chimneys, and adjacent wall and roof joints; (3) 200 hardware bronze nails—enough to do the job right.

Two thrifty packages of Revere Home Flashing are enough to seal all the vital joints on the average small house.

With the Revere Home Flashing System, builders are now able to give low-cost homes all the advantages of durable, non-rusting copper. It adds an important sales point to the house; it enhances the reputation of the builder as a user of quality material; it assures complete, satisfaction for the owner.

AT YOUR BUILDING SUPPLY DEALER

Your building supply dealer has Revere Home Flashing in stock... or can get it for you promptly. Why not ask him today—and start now to give your customers the protective advantages of the Revere Home Flashing System.

OF COURSE GOOD CONSTRUCTION CALLS FOR COPPER BOWNSPOUTS AND GUTTERS, TOO!



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Save Money-Buy SCOTT-NEWCOMB Products Direct Increase Sales Appeal of Your Homes

Smart, Quiet, Efficient Window and Attic Fans



The "S-N" window fan, shown above, is unique in design and appealing to anyone who wants quiet, efficient air circulation. Either pulls in fresh air or exhausts stale air. Three-speed motor provides flexibility — simple to install — compact design — light in weight.

They are high in quality — reasonable in cost.

Scott-Newcomb also offers a complete line of highly efficient "CirCOOLator" ventilating and attic fans for home, office and factory.

S-N Garbage Grinders

Cash in on the growing acceptance of garbage grinders and disposers. You can offer your customers this modern, automatic garbage disposer. Features include two directional shredding and grinding operation—safe, continuous feed—self-cleansing, odorless operation—installation—low operating cost.



Other S-N Products for the Home Builder:

- Air Conditioners, 3 and 5 ton
- Oil Burners
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- Water Heaters
- Water Softeners

Write today for complete information

SN-50



SCOTT-NEWCOMB, Inc.

1442 South Boyle Avenue St. Louis 10, Missouri

Tool Improves Layout Of Modular Products

CHARLES MEDDINGS, who has been laying brick for 55 years, laying out a story pole with a modultape, developed by modulengineer Fred Heath, McLean, Va.,



as a tool to assist masons and carpenters in the correct layout of modular products.

To assure dimensional stability, the new tape is made of a coated fabric woven of Fiberglas yarns. Tapes are available in 4, 8 and 12-foot lengths. For shorter modular divisions, the tapes have eyelets from which modular products can be spaced directly, or a pencil can be inserted to transfer the spacings to a story pole or layout strip. Three types of tape are available, for 4, 2-2/3 and 3-1/6-inch layouts, respectively.

Handbook of Engineering Information Is Published

BASIC scientific and engineering information about wood and wood-base materials used in housing, particularly through factory fabrication, has been assembled in a 330-page handbook, "Manual on Wood Construction for Prefabricated Houses," published by the Housing and Home Finance Agency and the Office of the Housing Expediter.

Though assembled primarily for use by prefabricators, much of the information can be applied in all types of housing, whether factory or site fabricated. The general information about properties of wood, plywood, and kindred materials is applicable in any type of construction where reasonably comparable conditions of use are in existence.





BUILDER'S LEVEL

DUMPY TYPE

- Needs No Servicing
- Sealed Against Dust
- · I'deal for On-the-Job Work
- Longer Lasting Accuracy

Manufactured to the same exact standards as all Brunson Instruments. Write for detailed information and name of nearest distributor.

The BRUNSON

1405 Walnut Street, Kansas City 6, Mo.





- CLEAN HARDENED PAINT BRUSHES SMOOTH OLD WOODWORK
 - STOP CHIPPING, CRAWLING

Over a Hundred Handy



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CLEAN, POLISH
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METALS, GLASS, TILE, PAINT

REMOVE WATER SPOTS, SHOE MARKS

An Indispensable Time Saver!
POPULAR SELLERS, GOOD PROFIT MAKERS
WHENEVER DISPLAYED!

Be sure you have ample stocks. Order today . . . through your paint dealer . . . or write direct

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Leadership in

Oil Heating.

of KRESKY

On Cold Days Consumer Advertising KRESKY'S year-round Oil Heating Line

> TODAY, through the greatest national advertising campaign in Kresky history, more millions of heating equipment customers are learning that there's a Kresky unit for every heating need and every budget. Through magazines such as the "Saturday

Evening Post" and "Small Homes Guide" Kresky is reaching a huge market of home builders, modernizers and other heating prospects. Reaching them and selling them on every Kresky product. Month after month, Kresky advertising of the year-round Kresky line is building year-round sales

and profits for Kresky dealers.

OIL FURNACE

AUTOMATIC HEAT!

are being told

IDEAL FOR THE MODERN COMPACT HOME



Sell the Year-Round KRESKY Line

No need to worry about a slack season when you carry Kresky oil heating equipment. Winter, summer, spring or fall, there's always an active market for Kresky products. Kresky manufactures floor furnaces, dual wall furnaces, water heaters, basement furnaces, commercial heaters, and conversion burners for all types of ranges, home or industrial. For complete information, write for our 1948 illustrated folder

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KRESKY MFG. CO., INC. PETALUMA, CALIFORNIA



The Best Known Name in Oil Heating Equipment Since 1910



Storage and Auxiliary

Water Heaters

Floor Register



Oil Burner



Dual Register Model



Auxiliary Water Heater



Master Basement Furnace



You can turn out commercial grade sash, fine mouldings, coped joints, stair treads, druwer and cupboard fronts and do other millwork yourself.

Boice-Crane offers a complete line of cutters for this large capacity shaper for producing most commercially used shapes. You can run wide mouldings and raised panels in one cut with our Ogee Sash Cutter sets.

The Boice-Crane is the only shaper having "down-draught" exhaust for chips from the cutters, and ½" and ¾" cutter-arbors formed on a solid one-piece vanadium-steel spindle stronger, more accurate and safer than any 2-piece type. Merely invert the quill to change from 34 " to 12 " arbor without special tools.

Large 1" diameter precision ground spindle, carried on two high quality dust and grease sealed hall bearings, stays true even after years of running wide, deep cuts. The bearing-seats in the quill casting, as well as the entire body of quill are all finely ground to precision dimensions.

The 20" x 2712" table features a large opening with provision for nested table rings, with these advantages: (1) All cutters, up to 614" diameter lower below table to undercut for greater safety. (2) Undercutting lessens danger of springing spindle. (3) Undercutting brings cutters closer to spindle bearings to reduce strain and wear.

SPECIFICATIONS:

Table (has I miter-gauge groove): 20" x 271/2" Table with Front Wing: 28" x 271/2" Table-Opening Diameters: 61/2", 31/2", and 2" Widest Bevel Edge Knife Capacity: 21/2" Widest Wing-Type Cutter Capacity: 3" Largest Diameter Cutter Capacity: 61/4" Vertical Spindle Travel: 13/4" Spindle Diameter at Ball Bearings: 1" Height from Floor to Table: 35" Power: 1/2 h.p. for Cutters 31/2" and less. I h.p. for Cutters over 31/2" Two Models: 7,200 or 10,000 r.p.m.

Boice-Crane, with its complete line of power tools, can, at minimum cost, completely equip a contractor's shop that will make you practically independent of the mill.

For a guarantee of satisfactory service specify only the products of established manufacturers who SPECIALIZE in producing power tools, rather than making ducing power to them a sideline.

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C. W. Dietterich to Head Industry-Wide Testing for Southern Plywood Ass'n

MBARKING upon a long-range plan of product betterment, members of the Southern Plywood Manufacturers Association have adopted institute industry-wide testing of their panel products and named C. W. Dietterich a quality control authority, to effect the program.

Dietterich, for several years inspector for Douglas Fir Plywood Association, the trade-promotion organization for Pacific Northwest panel makers, is the new managing director of the southern plywood organization. He was named at a recent annual meeting of the group at its Atlanta, Ga., headquarters.

At the same time, the southern manufacturers elected E. B. Mevercord of Mobile, Ala., association president, and Joseph Gall of Dillon, S. C., vice president, Meyercord is president of Meyercord Compound Lumber Co., and Gall is manager of Wilson Smith Veneer

Southern Plywood Manufacturers Association is comprised of firms operating 28 factories in seven southeastern states. They produce hardwood plywood both in stock panel sizes and for furniture uses. The association was formed in 1946.

New Type Panel Used In Garage Building

COMPLETION of their first building, in which a new material and a new building technique were employed, has been announced by Durisol, Inc., 420 Lexington Ave., N. Y. The new prod-



IMPREGNATED felt weatherproofs Durisol

uct. Durisol, is a light-weight, multi-purpose building material: the new method is designed to cut construction time in half.

In Durisol's new building, a fivecar garage in New Canaan, Conn., Durisol panels were used. They were pre-coated with waterproof cement plaster at the factory to (Continued to page 180)

IN-SINK-ERATOR Garbage Disposer



The IN-SINK-ERATOR Model "900," built on the integral design principle employed by IN-SINK-The IN-SINK-ERATOR Model "900, built on the integral design principle employed by IN-SINK-ERATOR for ten years (longer than any other in the disposer field) comes complete with a positive acting, reversing control switch and a simplified electrical hook-up for easy installation in custom dwellings or project housing. IN-SINK-ERATOR's automatic reversing action, complete self cleansing streamlined design and two-directional shredding have set the pace for ten years. It's the disposer the plumber likes, too. because it's distributed

EXCLUSIVELY THROUGH PLUMBING CHANNELS.



The IN-SINK-ERATOR story will be repeated to consumers 23,000,000 times in five of the leading household maga-zines in the country during 1948.

IN-SINK-ERATOR MANUFACTURING CO. RACINE, WIS.

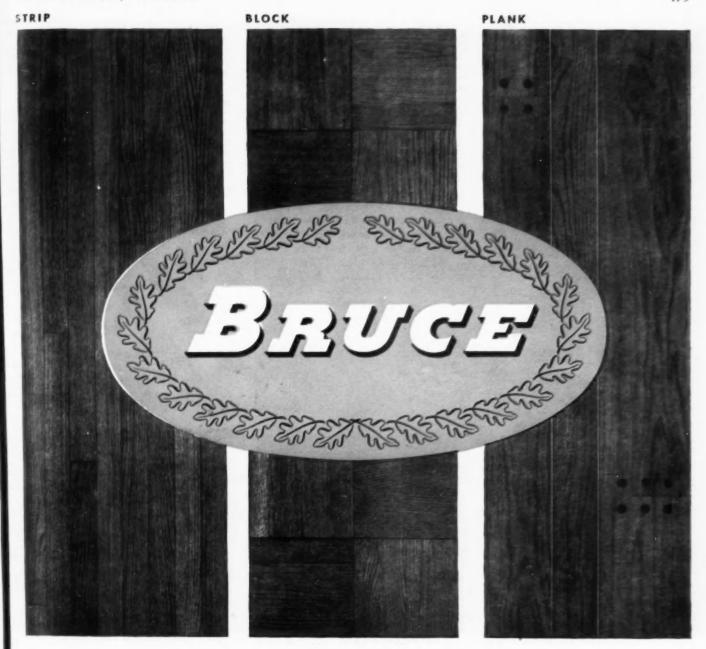
Exclusive Manufacturers of Automatic Garbage Disposers Since 1938

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A name you can depend on for Finer Hardwood Floors

Remember way back when the only hardwood floors in your home town were in the big mansions? Very likely those were Bruce Hardwood Floors, for over thirty years ago architects and builders started depending on Bruce for finer hardwood flooring.

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NELS.

In the intervening years, Bruce has made many advances in the technique of producing finer hardwood floors. Distinctive styles of flooring have been developed, as well as special types to fit modern architecture and

construction. Bruce has given longer life and more beauty to hardwood floors through improved finishing methods and materials.

Today, in almost every town in America, Bruce Hardwood Floors are found not only in the mansions and "show places," but also in the modest houses built to meet a price. More than ever before, Bruce is a name you can depend on for finer hardwood floors. E. L. BRUCE CO., MEMPHIS, TENN. World's Largest Maker of Hardwood Floors.

BRUCE HARDWOOD FLOORS



Prefinished and Unfinished

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Only the

FAN-GLO HEETAIRE

gives you ...

MADDED EXTRA PROFITS

your customers . . .

MADDED EXTRA WARM COMFORT QUICKLY

The 230 Series Built-In Wall FAN-GLO HEETAIRE is the only recessed heater built that gives both kinds of heat abundant infra-red rays plus abundant fan-forced heated air. Its infra-red rays heat all the humans in the room quickly!

It gives you MORE PROFITS! Because it's backed by powerful selling ammuni-tion — a dynamic convincing "Best Seltion — a dynamic convincing "Best Seller" sales manual . . . plus a veritable arsenal of new literature — catalog and specification sheets and charts . . . plus national magazine and newspaper advertising that drives home to millions of prospective customers the fact that FAN-GLO HEETAIRE is the only heater built that gives BOTH kinds of heat!

Call your jobber--he's all set to help you make more sales--more profits. Ask him about the 200 and 240 series of Heetaires

Only the FAN-GLO HEETAIRE has **ALL** these features:

- Infra-Red Rays
- Patented Neo-Glo Elements
- Fan-Forced Heated Air
- Exclusive Two-Heat Feature choice of HI-LO Heats
- Non-Rust Asbestos Lined Casing
- Easy to Install
- **Underwriters Approval**
- Guaranteed for One Year

IVORY, BROWN and NUCHROME FINISHES

Tested and Listed Under Reexamination Service by Underwriters Laboratories, Inc.

ELECTRIC PRODUCTS LIGHTING PRODUCTS

151 SENECA ST. BUFFALO 3, N. Y.

(Continued from page 178) eliminate cost of on-the-site finishing; were placed between studs spaced four feet apart, instead of the usual two-foot interval. This, Durisol claimed, saved 50 per cent on lumber. No mortar was needed, since a mastic made the joints waterproof.

The estimated cost of the 9,000 cubic foot building constructed with conventional materials was \$6,000; Durisol constructed it for 83,600.

New President for Comforts Products Corporation

ROLAND D. DOANE, Chicago, widely known sales executive in the building materials field, has been elected president of Comfort Products Corp., Milwaukee. Elected vice president and general manager was Walter Ericson who is president of Insulating Service, Inc., Milwaukee, H. H. Bowen is treasurer. Comfort Products was incorporated last year to handle materials particularly in the home building field including the Ingersoll Utility Unit, Vitroliner flues and Ingersoll KoolShade and Storm-Shade. The company's territory includes a tier of southern Wisconsin counties and the counties fronting on Lake Michigan up to the northern peninsula.

New Available Fuel Source May Result From Process

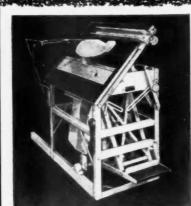
A HUGE new source of fuel will be made available in coming months, using a new process for converting millions of tons of anthracite silt into fuel gas, Frank W. Earnest, Jr., president of the Anthracite Institute, has announced.

In another form, this gas produced from a hitherto waste anthracite material will provide synthetic petroleum-products and chemical synthetics such as ammonia and methanol.

Two hundred million tons of anthracite silt are immediately available for such conversion. Since the average annual production of anthracite coal is about 50 million tons, this represents about four years total production of all anthracite. Large additional resources for gas conversion can be anticipated yearly because ten per cent of annual production is anthracite silt.

Anthracite silt, according to Dr. Raymond C. Johnson, vice president in charge of research of the Anthracite Institute, is an excellent fuel for the production of these gases because "it is non-choking, non-caking, free of tar, has a low sulphur content and a high ash-fusion temperature.'





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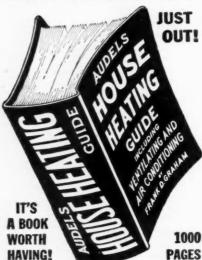
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Plywood Manufacturers, Government, to Handle Distribution Problems

NORTHWEST plywood manufacturers and government officials will jointly tackle the problem of channeling plywood to current housing needs, Arnold Koutonen of Olympia, president of Douglas Fir Plywood Association, announced.

Koutonen, who is also general manager of the plywood division of St. Paul & Tacoma Lumber Co., said "Ten plywood manufacturers have been invited to the capitol to represent the 48-factory industry, and we are anxious to cooperate as we have in the past."

In introducing the government's plan to panel makers, Mathias Niewenhous, consultant in the Department of Commerce Office of Industry Cooperation, advised that the plywood industry "has an enviable record for its cooperation with government agencies."

Industry advisory committees for consultation as to possible voluntary allocation of materials for critical uses were recently authorized by Congress, and specifically implemented by an executive order of President Truman. Already similar conferences have been called with steel producers, agricultural equipment manufacturers and other industries.

According to a ruling of Attorney General Tom C. Clark, such joint actions are entirely in accord with anti-trust laws, a point the plywood spokesman stressed.

Production of Douglas fir plywood today is at the all-time record rate of about 37 million square feet a week, Koutonen reported. More than half of the output is going into housing, most of it delivered through the nation's 25,000 retail lumber dealers, he said. The remaining plywood goes to industrial users such as railroads, boat builders and furniture firms, historically heavy users of the material.

Dealerships Offered

DEALERSHIPS for the first time are being offered on their established line of portable electric saws, disc sanders and belt sanders for the building industry, it was announced by W. B. Crew, executive vice president and general manager of the American Floor Surfacing Machine Co., Toledo, Ohio. This line has previously been handled by a limited number of American representatives. Greater demand, plus greater production facilities have now made it possible to offer these tools to dealers in the building trades, Mr. Crew declared.



The beaver does a good job, but he does it the hard way. Don't wear yourself out on the end of a hand-saw, or struggle with heavy, cumbersome mechanical saws that waste your time and are only half accurate.

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Permanent Quonsets Get New Heating Attention

DRAVO Corp., Pittsburgh, Pa., has recently developed a new type direct-fired Counterflo heater especially adaptable to large quonset structures.

One of these quonset heating units, recently supplied to a radio manufacturing plant in Kokomo, Ind., was installed without making any structural alterations in the building and without the necessity of additional floor space.

To heat this building of 25,600 square feet of floor space, two of the new improved heaters were used in the quonset building supplied by the Stran-Steel Division of Great Lakes Steel Corp., Terre Haute, Ind.

The two heaters, erected by an Indianapolis contractor, provide sufficient heat for comfortable working



OIL-FIRED Counterflo heater, with capacity of 1,250,000 BTU's an hour, meets comfort requirements in quanset plant

conditions because they operate on the principle of "working level recirculation" of warm air.

In this method, air is drawn into the base of the heater from the floor; passed over two staggered banks of economizer tubes leading to the vent stack from the combustion chamber, and discharged, after converging in a short plenum chamber, through directional discharge nozzles on top of the unit.

Since the air moves over the economizer tubes, Dravo Corp. claims a maximum amount of heat energy is extracted from the combustion gases before they are exhausted out the vent pipe.

Two different sizes of heaters used in the permanent-type quonset in Kokomo discharge warm air at a velocity of 2000 feet a minute. By holding the warm air in the working area, it is possible to achieve a high degree of comfort with minimum loss through the roof. The maximum roof height in this building is approximately 20 feet.

Portability of the Dravo heater is also another suitable factor for a quonset that might be enlarged or moved.



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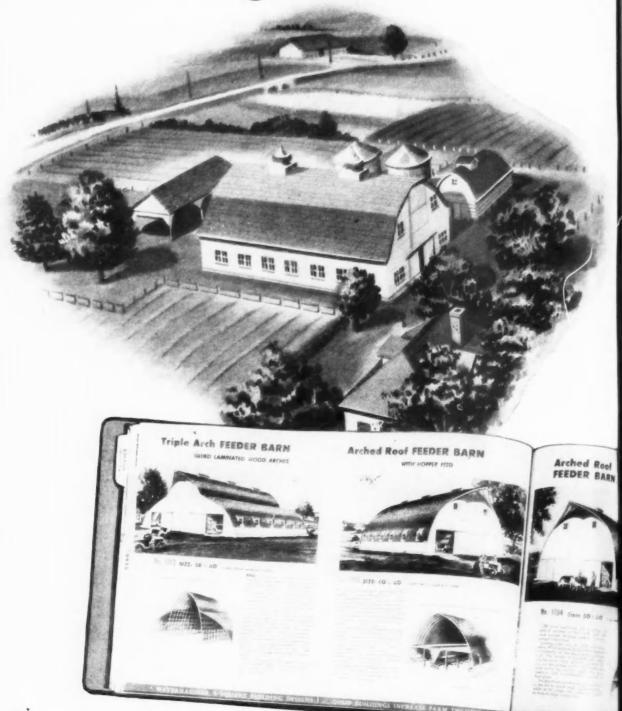
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Over 150 engineered designs of modern farm buildings and equipment ... huge gothic arch machine sheds and barns free of posts and space-consuming bracing ... portable houses specially braced for repeated hauling over rough ground ... hog houses for year 'round use self-feeders that prevent waste and save labor hours ... the most complete farm building Service ever developed.

Month after month farmers are reminded that "good wood buildings are the best farm buildings." In leading farm magazines, page dominating advertisements tell the story of extra-value features of all designs of Weyerhaeuser 4-Square Farm Building Service.

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better farm buildings built of wood

WEYERHAEUSER 4-SQUARE BUILDING SERVICE

GOOD LUMBER continues to be the best and most economical material for farm building. It is strong ... durable ... and probably the most weather-resistant of all materials. It is not uncommon for good wood farm buildings to serve three generations and more.

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economically remodeled to suit new needs. Good wood buildings are the best farm

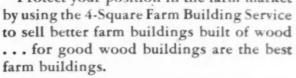
buildings.

And now . . . through engineering in lumber . . . and engineering in the design of farm structures . . . you can offer your customers today's best value in farm buildings ... better than that built of any other material.

With the Weyerhaeuser 4-Square Farm Building Service you can offer good wood buildings of a size and type to meet every farm need. They are designed to increase farm income. They are more economical to build and more efficient in use.

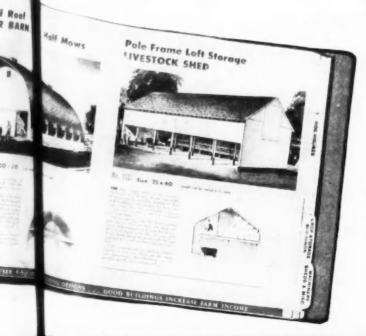
From the 4-Square Farm Building Service you can obtain the blueprints for these engineered farm buildings . . . from the yard of the 4-Square dealer you can obtain the lumber for these buildings . . . and you can use both to give your farm customer a better building for his money.

Protect your position in the farm market farm buildings.



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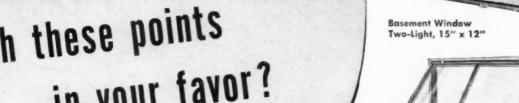
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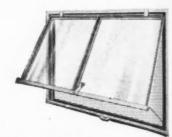




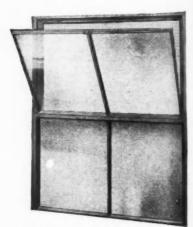
For further information, write to: Detroit Steel Products Company, Dept. AB-6, 2260 East Grand Boulevard, Detroit 11, Michigan.



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In the new RKO hit, "Mr. Blandings Builds His Dream House", Cary Grant and Myrna Loy (Mr. and Mrs. Blandings) didn't tell Reginald Denny to specify quality materials throughout. Before the picture is over, they wish they had.

For generations, the top quality name in build-er's hardware has been YALE, and the procession of new modern YALE hardware promises to increase further the universal preference for the

When you install YALE hardware, your customer will recognize it as an indication of a wellbuilt house.

THE YALE & TOWNE MANUFACTURING COMPANY

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"Packages of Protection"

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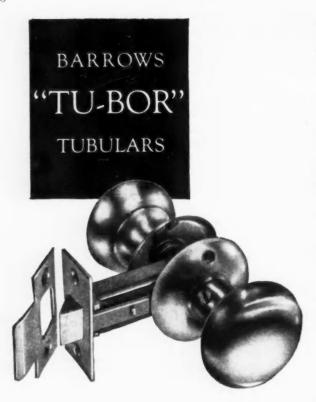
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To avoid the same troubles Cary Grant and Myrna Loy had with hardware in "Mr. Blandings Builds His Dream House", specify YALE.

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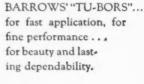
THE YALE & TOWNE MANUFACTURING CO., Stanford, Conn., U. S. A. Makers of the famous YALE lines of Locks, Door Closers, Hardware, Pumps, Hoists and Industrial Trucks.

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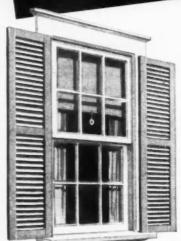
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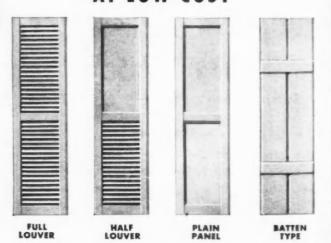
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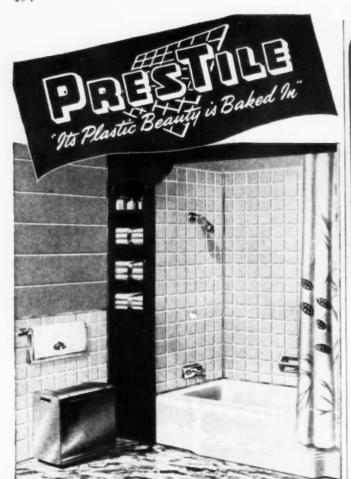
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9 Color Combinations

- · WHITE with black or red score lines
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 PLAIN—unscored in all colors.



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5 Popular Patterns

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Many outstanding features insure superior performance at low-cost

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For an economical, long lasting, cooling unit of rugged construction, investigate the LAU Rancher, Model R-303, today!

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ARE CONTRACTORS PECULIAR PEOPLE?



WE don't think so—but some contractors, like all of us, have peculiar ideas. For example, they finish a house, paint the outside, paint the woodwork inside, paint or paper the walls, yes and sometimes they paint the common brick exterior, and even the garage gets its coat

day!



of paint, but down below grade level-that all important basement-doesn't get a dime's worth of paint.

But, today's smart contractors are not at all "peculiar" about finishing the basement. They realize that here is one of the most useful parts of the house—available space for playroom, recreation room, work shop, laundry. That's why the basement of today is receiving its share of paint.

ON BASEMENT WALLS

In this era of better basements, Medusa Portland Cement Paint, made by a cement company, is first choice for sealing and decorating basement walls. This quality cement paint has been used successfully for 28 years on all concrete, stucco and masonry surfaces. It mixes with water, needs no undersealer or preparation coats. Can be applied to green concrete, covers fast with a brush or flows smoothly from a spray. It penetrates deeply and effectively seals as it decorates. Offers eight colors plus black and white.

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No need to leave the concrete basement floor unfinished. Give it a beautiful, permanent, colorful finish with Medusa Floor Coating. This paint has a new rubber base that bounces off wear. It resists abrasion, is proof against alkalies, water and cleaning



compounds. It can be used not only on basement floors but on exterior concrete such as porches, porch floors, swimming pools, walks, etc. Your choice of five beautiful colors, black and white. Send coupon below for free copy of the booklet, "Painting Concrete, Stucco and Masonry."

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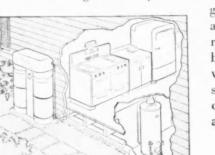


KITCHEN HELPERS FOR HOMES BEYOND THE GAS MAINS

Why not give your clients the extra "hands" they need to make their homes completely livable? When building homes beyond the gas mains specify a Pyrofax gas installation. With it, you can offer the extras of a gas-operated refrigerator, range, and water-heater. These are the appliances home-buyers need and want -and with a Pyrofax gas installation you can be sure of complete satisfaction.

For more information, see our catalog in Sweet's File, or write to Pyrofax Gas Division, Dept. B-5, Carbide and Carbon Chemicals Corporation, New York 17, N. Y.

No special preparations are needed for a Pyrofax gas installation. The whole unit is easily installed above ground ready for immediate service. Pyrofax



gas is insurance against service interruptions caused by bad weather and provides a dependable supply of fuel for cooking, heating, and refrigeration.





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Trouble-Savers, easily adjustable for length as well as height, give lasting service.

Builders, contractors, maintenance men and others save time, labor and material with "Trouble Saver" Adjustable Steel Trestles. They provide a safe, sure, low-cost method of handling all overhead work in a wide variety of conditions.

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Nail-Attached Brackets



Made of rail steel, Scaffold Brackets simplify the installation of safe working platforms for various types of side wall work. Light, easy to handle—they are real time and money savers. You profit on every job.

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Will this take place in your houses next winter?



No house is a fuel orphan with the "Unbeatable Heating Combination"!

• Experts predict that the shortages of other fuels will last from 3 to 5 years. With the "unbeatable heating combination," your clients never need to be cold, because they can have the heat they need when they want it!

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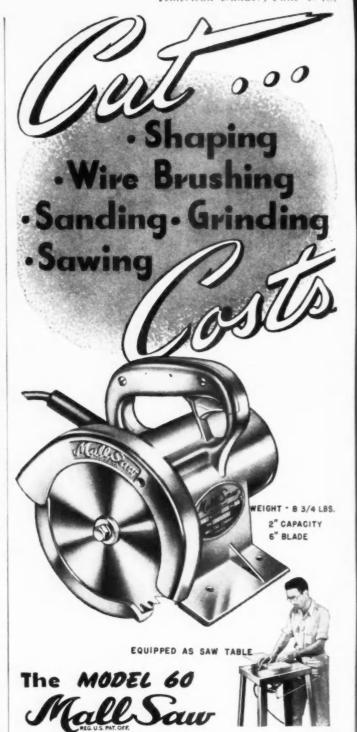
Get the attractive, free booklet *Oak* Floors for Long-time Beauty from your lumber dealer. It details all these values of oak floors. Ask also for the new Builders' Data Book, giving specifications for planning, laying and finishing oak floors. Get these two helpful books today.

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At Chester, Pa., F. A. Collins has erected 185 one-story, 6-room cellarless homes with Chase Copper Tube Radiant Heating, Wilson Bros., Collingdale, Pa., Heating Contractors.

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you, too, will want Chase copper tube in your Radiant Heating Installations!

EASY TO BEND
LIGHT IN WEIGHT
SOLDERED FITTINGS
SMALL DIAMETERS
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LOW COST
LONG LIFE



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ARE BALANCED FOR
FATIGUE-FREE, SAFE
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SMOOTHLY IN ANY
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ABOVE: Fred W. Wappat Saw trimming sheathing that has been nailed in place.

RIGHT: Fred W. Wappat Saw hung inverted over cleat on saw horse, performing ripping operation.



\$11500 Model A-9" 37/6" out \$13500

Powerful Fred W. Wappat Electric Hand Saws make building shortcuts and savings anywhere on the job. Operation is almost effortless—even with only one hand; motors run smoothly in any position. You can quickly and accurately trim flooring and roof decking

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KAISER ALUMINUM clapboard Siding can't be weakened or disfigured by knots, splits or sawing scars. It can't rot, warp, rust or crack. And a zinc chromate prime coat applied at the mill readies it for

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Kaiser Aluminum clapboard Siding Specifications:

Length . . 10, 12, 14 and 16 ft, standard lengths Thickness . . .030" 678"

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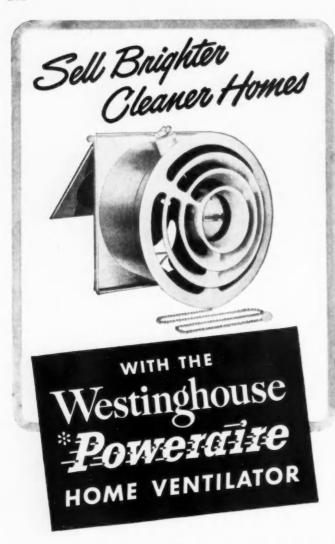
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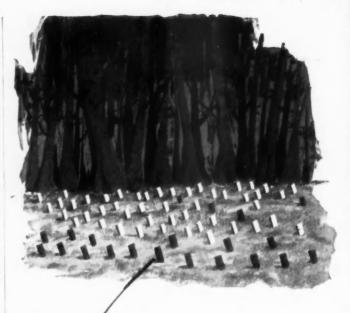
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• Almost every conceivable test was used in establishing N.D.M. A. Standards for toxic preservative treatment of woodwork such as doors, screens, windows. For example, treated and untreated wood samples were tested in a Louisiana swamp...subjected to long exposure and fungus attacks.

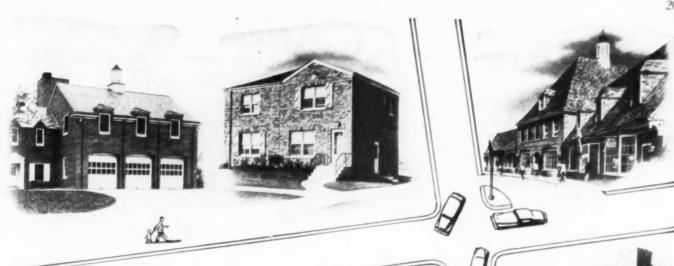
Out of such research, N.D.M.A. has established minimum preservative standards which help make wood a better building material than ever. The N.D.M.A. seal means sureness of value to the owner—when you specify woodwork products.

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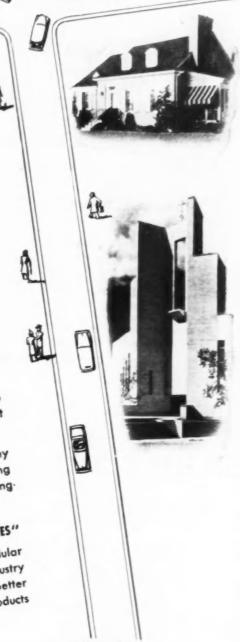
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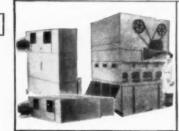
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For factory-built air conditioning, heating, drying or special processing units. Made also in steam distributing tube type.



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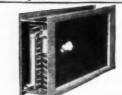
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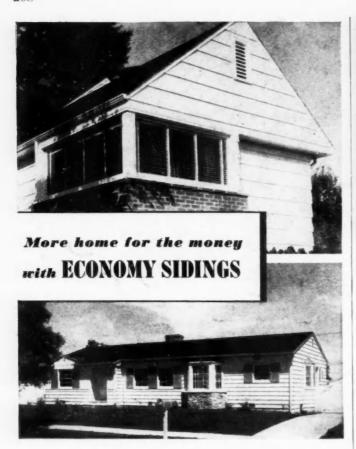
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Economy Sidings in Western Pines* include knotty pieces, milled to a variety of pleasing patterns. This "economy" lumber is a lower grade siding, but for specific purposes, gives adequate service for the least money, both in first cost and later maintenance.

Primed with knot sealer WP-578 (see below), these sidings when painted present the same distinctive appearance and have the same structural strength as higher quality material.

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Knot sealer WP-578, developed by Western Pine Association, is recommended for priming knots to prevent paint failure. In laboratory and field tests, it has out-performed all other sealers. Prepared solutions of WP-578 are made and distributed by 42 approved paint manufacturers from coast to coast. If your dealer does not have it, write Dept. 70-B, Western Pine Association, Yeon Building, Portland 4, Oregon.

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Stainless steel sink bowls-flat rim or ledge back

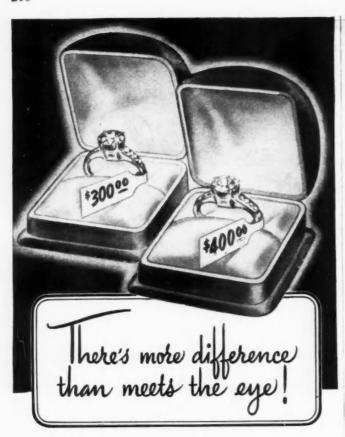




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To the naked eye—even to a trained one—two gems of different value may look alike. The extra worth of one may hinge on the slightest difference in shape, coloring, polish or clarity.

In CHROMEDGE Metal Trims, too

there are many points of extra value that may not show at first glance.

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You know you're getting genuine Chromedge quality, because these famous trims are distributed only through B & T's authorized wholesalers.

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Get This Blueprint Plan Book NOW!



Use this new Blueprint Plan Book as a sales tool. Use it to accurately estimate building costs. Use it for ideas on Built-Ins and ideas on garage styles that will harmonize with the exterior design treatment of the house.

12 COMPLETE BLUEPRINTS
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GARAGES — BUILT-INS

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 AMERICAN BUILDER'S New Blueprint Plan Book will be a valuable sales aid to you. The blueprints open up to $16\frac{1}{2}$ inches by $11\frac{1}{2}$ inches, suitable for accurately estimating construction costs of these attractive homes and garages. Colorful plastic binding permits it to open and stay flat while in use. You can help you customers visualize the house from all sides, as all four elevations are shown. Furthermore, the large size plans assist your customers to obtain a better idea of the relative sizes of rooms than is possible with ordinary "plan books." In addition, important details are shown and each plan is illustrated with a large, clear photograph of the house. In fact, no customer can fail to be impressed with the splendid material in this book. All homes in this book have been designed by nationally famous architects.

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EASY TO INSTALL

in all types of construction

ALWINUM WINDOWS

• They're easier to install because they come completely assembled—ready to anchor in place—with no extras to add, no adjustments to make

That's one of many reasons builders prefer ALWINTITE aluminum windows—for all types of construction.

• They make homes easier to sell. That's another big reason. ALWINTITE has all these selling features: attractive appearance, sound design, built-in stainless steel weather stripping, ease of operation, freedom from painting. These are the windows home buyers are demanding.

• They're quality tested and approved.

ALWINTITE – tested and approved by the in-

dependent Pittsburgh Testing Laboratories – carries the Aluminum Window Manufacturers Association Seal of Approval – complies with F.H.A. requirements.

They're available—in a complete line.

ALWINTITE double-hung windows are available in 4 styles, 12 stock sizes, with screens and storm sash to fit. Picture and basement windows, and mullions for multiple window arrangements, complete the ALWINTITE line.

See your local building materials dealer or write for literature to Department AB-6.

THE ALUMINUM WINDOW CORPORATION

A Subsidiary of General Bronze Corporation
606 Stewart Avenue Garden City, N. Y.



aluminum windows

"BUILD RIGHT WITH ALWINTITE"

This Master Salesman gives you a Profit-Making Barn Equipment Department in a floor space just 3' by 5'

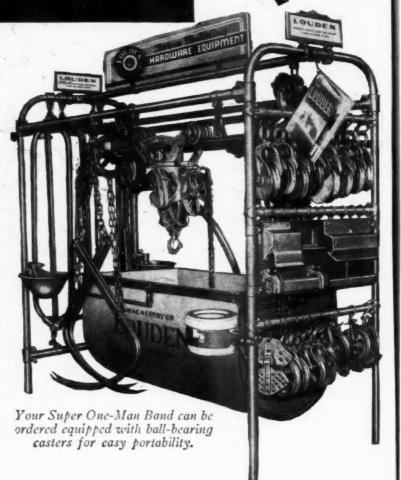
The LOUDEN Super One-Man Band

Here's an outstanding sales-maker that's right in step with modern merchandising. Louden dealers have named it the "One-Man Band" — and it certainly plays pleasant and persistent tunes on your cash register.

In effect, the Louden Super One-Man Band puts a complete barn equipment department right in your store—a department that requires a floor space just 3' by 5'. (Or just 2' by 3' for the Junior One-Man Band) Yet in this compact area you show an effective assortment of pulleys, water bowls, stanchions, door tracks, litter-carrier and track, hay fork and hay carriage, salt bowl and other essential items of barn hardware.

There's another big reason for you to feature Louden One-Man Band—that's the Louden name—first name in barn equipment. Since Louden introduced the first Hay-carrier, 81 years ago, Louden has pioneered nearly every piece of major barn equipment. Louden was a pioneer in another way, too. The One-Man Band, originated by Louden, has proven to be the first practical display rack for hard-to-display barn equipment—another typical Louden "first".

Your Louden One-Man Band will help you cash in on the coming up-swing in farm building activity. And it's time to take action — so speak to your Louden salesman or Louden distributor about putting a One-Man Band at work for you . . . or write direct for complete information.



THE LOUDEN MACHINERY COMPANY

256 W. COURT STREETFAIRFIELD, IOWA

ALBANY 1, NEW YORK

Please Direct Inquiries to Fairfield

The LOUDEN Junior One-Man Band

For stores of moderate size, or where floor area is very crowded, there's the Junior One-Man Band—a superior sales-making display occupying a space only 2' by 3'.

FARM BUILDING HARDWARE & EQUIPMENT

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Announcing

NEW IMPROVED GOLD BOND SAFE-EDGE CORNERITE

NO ROUGH EDGES ...
WILL NOT CUT HANDS ...
SPEEDS BUILDING AND PLASTERING

NEW improved Gold Bond Safe-Edge Cornerite is really tops! Smooth edged and perfectly formed... there are no rough edges. Lathers like this feature because with no rough edges it's easier to handle, easier to pile, easier to pick up and apply! Plasterers like it because it will not cut hands and because there are no rough edges to interfere with troweling. It speeds the job from start to finish.

Gold Bond Safe-Edge Cornerite is not cut from full-sized sheets of lath like most cornerite. Specially designed and fabricated with smooth edges right at the factory. Made from copper alloy steel and painted black, there's nothing better for reinforcing internal corners! It's another new Gold Bond product, to make the lather's job easier.

NATIONAL GYPSUM COMPANY

YOU'LL BUILD OR REMODEL BETTER WITH GOLD BOND PRODUCTS

Try it yourself! Run your hand

along the edge of Gold Bond Safe-Edge Cornerite! It's safe!

It can't cut or scratch because

it's perfectly smooth.

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The Sensationally NEW Low-Priced



PARKS No. 20 20" PLANER

Here is a modernly designed, rugged, high-speed, low-priced planer that is ideally suited for every shop and industrial plant requiring a quality surfacer. The Parks No. 20 Planer has a four-knife cutterhead with a speed of 3600 R.P.M. and offers two feed speeds — 20 and 40 F.P.M., and 40 and 80 F.P.M. Write for complete descriptive literature.

PROMPT DELIVERY

THE PARKS WOODWORKING MACHINE COMPANY

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MANUFACTURERS OF QUALITY WOODWORKING MACHINES SINCE 1887



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but no wonder
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NORDAHL

IN THE WALL

SLIDING
DOOR FRAME

Dealers and builders have found that NORDAHL customers are more than satisfied — they're enthusiastic!

Check these NORDAHL features:



QUIET—New type smooth running roller bearing phenolic fiber rollers glide silently over a metal track in the built-up header.



STURDY—Exclusive metal reinforced jambs mean there's no warping or bowing—the pocket opening is held rigid and true. Nothing to go wrong, easily installed.

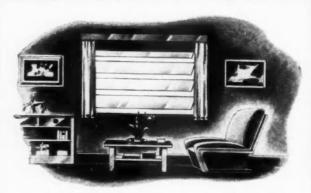


PRICED RIGHT—Nordahl sells itself. The customer saves the modern way. No waste wall space—no waste floor space—no slamming doors.

WRITE FOR COMPLETE DESCRIPTIVE MATERIAL

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ILLUSTRATED IS THE NEW Lemco.
PANORAMIC VISUALITE AWNING WINDOW

Cat. Type 2413 (Approximate Builder's Price)

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DELIVERED FROM STOCK

Lemco Awning Windows are manufactured from solid section aluminum extrusions. Lemco is the only experienced manufacturer of metal Awning Windows—installation everywhere. Designed for modern and futuramic homes, institutional buildings.

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AMERICA'S OLDEST CASEMENT WINDOW MANUFACTURER

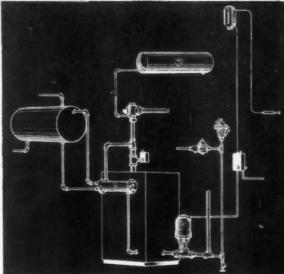
CROFT STEEL PRODUCTS, INC.

SUMMER-WINTER HOT WATER





depends on good heating and plentiful hot



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PROVIDES the finest automatic heating for homes, apartments and small buildings. Easily and inexpensively zoned. Assures greater home comfort with reduced fuel consumption in winter plus . . . a plentiful automatic supply of hot water for kitchen, laundry, and bath from the same boiler, winter or summer.

See our completely illustrated catalog in Sweet's or. address Dept. G-6 for new booklet.

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URER

INC.

DO YOU KNOW THAT YOU CAN SELL AND INSTALL THESE MORE SATISFACTORY, LONGER-LASTING, BETTER-LOOKING STEEL ACCESS DOORS AT LOWER COST THAN THE OLD TYPE?

> Every house needs at least one access door. Public buildings need hundreds!

BIG, NEW PROFIT OPPORTUNITIES for the builder and dealer! **BIG SAVINGS for the owner!**

MILCOR STEEL Make the most of ACCESS DOORS

Installed at lower cost than old-type doors you sell more . . . make a greater profit!

Ready to Install! Fits flush with wall and ceiling surface.

No Special Framing! No cutting, adjusting, or altering, either.

Furnished Painted! Prime coat of grey, rust-inhibitive paint.

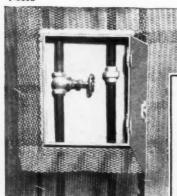
11 Different Sizes! From 8 3/6" x 12 3/6" to 24 3/6" x 24 3/6"

Concealed Hinges! - or clip fasteners.

Screw-type Lock! Depressed level with surface of lid.

There are three styles (11 sizes each) of Milcor Metal Access Doors for reaching key points in plumbing, heating, electrical, and refrigeration systems—and for permitting ceiling entry to atties: I. With expanded metal wing, for plastered walls; 2. Without expanded metal wing, for plastered walls; 3, For non-plastered walls; masonry, brick, stone, wallboard, acoustical construction, etc.

F-311B



Save the high labor costs. Save the time of building special framing. Save the time of installing and painting the old-type access doors. Make more - by selling and installing these new, better steel doors that can't crack, shrink, warp, or rot - and that last forever!

Customers are more satisfied, because all jobs are perfect - because of greater interior beauty (flush-with-wall doors are attractively papered

or painted with the rest of the wall or ceiling surface) - and because of greater utility.

INLAND STEEL PRODUCTS COMPANY WILLIAM STATES

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Baltimore 24, Md. ● Buffalo 11, N. Y. ● Chicago 9, Ill. Cincinnati 25, Ohio ● Cleveland 14, Ohio ● Detroit 2, Mich. ● Kansas City 8, Mo. ● Los Angeles 23, Calif. New York 22, N. Y. ● Rochester 9, N. Y.

Mr. Dealer: Mr. Builder: Tear out coupon and mail at once

- for specifications and complete descriptive material on Milcor Steel Access Doors.

INLAND STEEL PRODUCTS CO., 4101 W. Burnham St., Milwaukee 1, Wis.

Send me specifications and descriptive material on Milcor Steel Access Doors.

I am a builder. ☐ I am a dealer. Name.

Company... Address

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What we say in our slogan

What's in a phrase?

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We have tried to put our conception of the Lustron Home into a concise, meaningful combination of words. We call it

"...a new standard for living."

Of course, the idea in these words will convey different implications to different people. Here are some of the things we think three basic groups of people will read into it.

To the Buyer

Obviously, the family who buys a Lustron Home has a right to expect easier, better living.

More house for the money—more than 1000 square feet of usable, livable floor space. More utilities included in the basic purchase—kitchen cabinets, combination dishwasher-clotheswasher, exhaust fan, automatic water heater, automatic heating plant.

Twice the storage space of a comparable conventional house in Lustron's built-in "closet walls." Built-in features and radiant panel heating system unobtainable in any other house at any price. No repainting, redecorating or reroofing ever needed in this porcelain enameled steel home. The only cleaning materials are soap, water, and a damp cloth.

To the Builder-Dealer

Lustron's plan of working through soundly financed builder-dealers in established communities means that construction costs can be stabilized and accurately controlled. There can be no unforeseen construction delays, no need for substitution of materials.

Lustron's builder-dealers put their time against construction and sales. They waste no time on procurement, in vain searches for scarce materials. They erect a complete Lustron Home in approximately three days after conpletion of the concrete foundation, and get on to the next job—giving the



Permanent, easy to maintain, extremely little depreciation—these advantages are basic in the low-cost Lustron Home. Porcelain enameled steel panels can never decay, fade, weather or stain.

building industry the quick turnover it has needed for so long.

To the Lending Institution

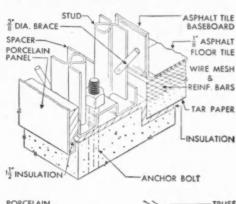
Banks, savings and loan associations, mortgage houses, and government agencies will find a new standard of value in home construction in Lustron's "new standard for living."

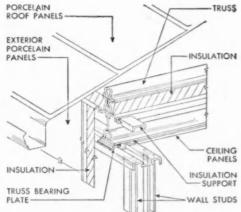
The great strength of all-steel construction plus the lasting qualities and easy maintenance of porcelain enameled steel means permanence, low rate of depreciation, higher resale value over a longer time.

Low carrying charges (well within the reach of modest incomes) cover not only a substantial house but also a "package" house, in which all utilities, built-in storage units and combination dishwasher-clotheswasher are included on one mortgage. The buyers' funds are not spread over separate installment payments on a great number of items.

Lustron Homes are now on exhibition in a number of cities.

Deliveries to builder-dealers will start in late June or July. We invite you to inspect the Lustron Home — and for more details, write us.





Detail drawings show soundness of Lustron construction methods.

LUSTRON CORPORATION

4200 East Fifth Avenue

Columbus 16, Ohio



Long Branch, New Jersey October 22, 1947.

President Homasote Company Fernwood Road Trenton, New Jersey Dear Sir: —

I am one of 56 men who constructed and then lived in the Byrd Expedition buildings (at Little America, Antarctica for over a year in 1934-35) which were assembled from Homasote lined sections left over from the establishment of the first Little America in 1929. These sections were already the veterans of five years' storage in damp New Zealand warehouses, but were still so strong and easy to saw, fit, and assemble that we were considerably surprised. But when we had dug down to the old camp and found also that the Homasote in the original buildings was in perfect condition after one year of soaking in melted snow (1929-30) and five years under the terrific pressure of 20 feet of ice, we were completely sold. When other wallboards would have pulped, cracked or dissolved, Homasote remained firm and trustworthy insulation against blizzards and temperatures to minus 75!

I am not in the habit of using my few leisure hours to throw bouquets, I have too much to do, but I feel that merit deserves reward, so here goes — believe it or not, the above remarks are paled into obscurity by my present opinion of your fine product. When, as a technical observer, on the recently concluded Navy "Operation Highjump", I was one of the few who were privileged to dig down 12 feet to our old home 10 miles from the newest camp-site. I found the 18 year old Homasote in the walls and ceilings of the "Messhall' and "Science Lab" (the only buildings we could reach) absolutely unharmed by time, water, or cold. Hundreds of tons of ice had forced up the wood floors and pushed down the ceilings until they met in the center of the rooms, and puddles of ice everywhere evidenced the repeated freezing and thawing of the many seasons, but the walls were straight, unbuckled and scarcely stained.

Later, when our Expedition was leaving for its return to the States (February, 1947) and I had occasion to make one last run to the old camp to mark the entrances against the future, I hacked out a piece of the messhall wall to send to you for analysis. I am mailing it to you for whatever purpose you may wish to use it, and if you ever want me to convince some doubting customer of yours, just lead me to him. At least I can assure you that when at last I build the home I've been planning throughout several years of roaming the world, the insulation will emphatically be Homasote.

Yours sincerely,

amony H Waite J.

Amory H. Waite, Jr. Radio Engineer BAE II 1934-35 and 1946-47

P.S. I forgot one item. When I was carrying your specimen up the rope ladder from the whaleboat to the ship, it fell out of my pack and drifted away to sea. To my amazement its generation-old water-proofing qualities were still intact for it kept floating! Another boat speared it with a boat hook an hour later and returned it to me, punctured, but still definitely useable wallboard. The hole, therefore, is a badge of honor rather than a defect.



HOMASOTE COMPANY, Trenton 3, N. J.

Structural,

Reinforcing or

Reinforcing Steel

Shipped from Stock

Write for Stock List—
your guide to over 10,000
different kinds, shapes
and sizes of steel for
quick shipment from ten

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Finger-tip control!...
With an accurately balanced sash that will not "creep"! An efficient seal against drafts, dust, moisture! No wood-to-wood contact... prevents sticking windows! Smooth, positive action. Just 4 spring bronze channels and 4 springs!

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Simple installation slashes labor costs! No highpriced, special skill needed! One man can easily install 25 or more windows in 8 hours!

Write Dept. A-4 for Free Folder and Price List

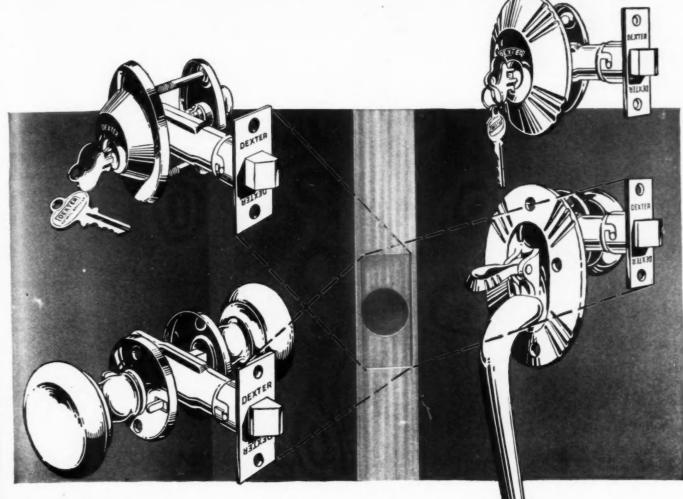
Milwaukee STRIP SERVICE, Pac.

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Only

DEXTER TUBULARS

Have all these 9 features of superiority

DEXTERS, all fit the same size hole. Latches, locks, entrance sets—install in just one standard, uniform boring. That's what makes the Dexter Bit Guide so worthwhile. It can be used to save time during installation of every Dexter lock.

This is another Dexter feature appreciated by every builder—another reason why Dexter Tubulars install faster at less expense—another one of the 9 special reasons why Dexter Tubulars are first choice with builders.

- Stay-tite Set Screw
- 2 Two Big Coil Springs
- 3 All Steel Interior
- 4 Solid Brass Trim
- 6 Uniform Boring for Locks and Latches
- Self-Adjusting Alignment
- 7 25 Years Specialized Experience
- 8 Shallow Face Plate Mortise
- 9 Lifetime Guarantee

NATIONAL BRASS COMPANY

Grand Rapids, Michigan

MAKERS OF BUILDERS, CABINET, SCREEN DOOR
AND SHELF HARDWARE





Contractors and **Builders**

Most every basement develops a water problem at one time or another.

It is good business to offer security to the homeowner by waterproofing the basement while it is new and before water has been attracted to it.



WATERPLUG, a quick-set hydraulic compound, seals streams of active water and seepage from entering through wall. Set begins in from 3 to 5 minutes after mixing water is added.



THOROSEAL, a S ch applied.)

WRITE NOW

for circulars descriptive, in photographic detail, of how to waterproof a basement, how to protect the exterior surfaces of manufactured block, brick, concrete or any type masonry THOROSEAL



World's Most Beautiful Roof

Can be Your Outstanding

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Manufacturing

You can earn big money in the Duntile business—100% to 150% mark-up on basic costs. You can manufacture for a selective mark-up on basic costs. market—uncrowded and minus price-competition—because Duntile is exclusive and much-wanted.

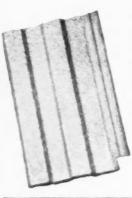
Duntile is the world's most beautiful roof. With all the safety,

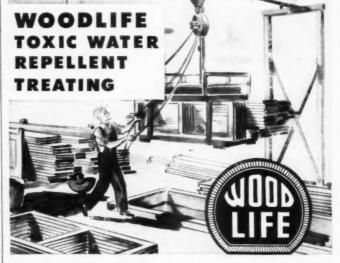
endurance and economy of masonry at its best. Wide range of smart, fused-on colors. French or Spanish type. Truly the roof that every owner wants.

Swing into Duntile production NOW. You may already have some equipment that can be utilized. Manufacturing is easy, interesting, profitable, We supply all machinery necessary, Instruct you fully. Back you with aggressive cooperation. Write for Manufacturing Analysis which gives Manufacturing Analysis cost and profit data, etc.

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That Satisfies

Real protection against splitting, checking and warping is yours with WOODLIFE. No complaints about blue stain or rot. An unblemished paint surface free of blisters, cracks and discoloration.

Write for literature and name of nearest Dealer!

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Co.

1921

MICH.



can buy what dollars can't!

Money can't buy you a good reputation. But minutes can! A few extra minutes on the job . . . to make the roof lay tighter, or smoother . . . to make the ridge line cleaner . . . to leave the yard and premises neater . . . can earn you and your firm a fund of good will you could not accumulate in any other way.

It is what these extra minutes stand for that you really have to offer ... skill, know-how and good thorough workmanship. Sell and deliver that skill and that thoroughness. And match your good workmanship with good materials. Asphalt Shingles are today's biggest dollar's worth in the construction field. Urge customers to choose the pattern, weight and color that give best coverage, best appearance. Sell quality...sell value.

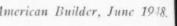
IT IS GOOD BUSINESS TO DO IT BETTER!

When it comes to applying Asphalt Shingles there are certain practical steps and precautions that will help assure you a good application. For example, six nails are recommended in applying strip shingles because their use makes a better roof...helps eliminate comebacks for the applicator.

Estimate the wind hazard, for the whole roof and for areas of severest exposure. Plan to make your application wind-resistant with extra nailing ... and by cementing tabs. Remember always, good workmanship is good kemember always, good workmansmp is good business. And there's Profit in the minutes that make the job better.

roof will COLORFUL SERVICEABLE FIRE RESISTANT

ASPHALT ROOFING INDUSTRY BUREAU . ROOM 1703 . 2 W. 45TH ST. . NEW YORK 19, N. Y. SPONSORED BY 28 LEADING MANUFACTURERS OF ASPHALT SHINGLES . ROLL ROOFINGS . SIDINGS . AND BUILT-UP ROOFINGS





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COMBINATION SASH BALANCES BRONZE WEATHERSTRI

Unit PACKAGED, any size opening \$3.25
See your lumber dealer or order direct from us.

THE WEATHERPROOF PRODUCTS CORP. 321 WESTPORT ROAD . KANSAS CITY 2, MO. . WESTPORT 1210



The business is timely. The products are America's smartest and most beautiful masonry building units. The market is as big and wide open as the huge building industry. Potential earnings are the greatest offered by any masonry product.

Such a combination forms the outstanding manufacturing opportunity in the building field. It offers men like you the chance to establish a life time business within a basic industry.

Colorful Beauty . . . Modern Design

Dunbrik-Dunstone gears with today's demand for low-cost masonry with the utmost in eye-appeal. With strength a-plenty and impregnated water-resistant values. Made in local plants, from local materials with local labor, and at production costs that provide HIGH EARNINGS—even after effecting tremendous savings to building owners.



New territories are now being opened to men of vision and aggressiveness. Write or wire us for reservation covering your territory, and descriptive literature.

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QUICK, EASY SETTING is an important feature of this flush type sash, Pittco De Luxe No. 17. It was designed primarily for use where the owner wishes to have the ceilings of canopy and store on the same plane, apparently joining each other without interruption. It can also be used at the sides of the glass, and with other members of either De Luxe or Premier lines of Pittco Store Front Metal. Of special importance is the fact that this new sash is self-adjusting to allow for a certain amount of deflection in beam or canopy... there are no obstructions between the edge of the glass and the inner member.

Choose Pittco for your store modernization work. Both Pittco lines may be set from outside, and the speed and simplicity of setting procedures reduce installation time and save money. At the nearest "Pittsburgh" warehouse, there are qualified technicians who will advise you on the erection of rough work to receive "Pittsburgh" products properly. And experienced crews of "Pittsburgh" workmen set metal and glass quickly and skillfully.

PITTCO STORE FRONT METAL

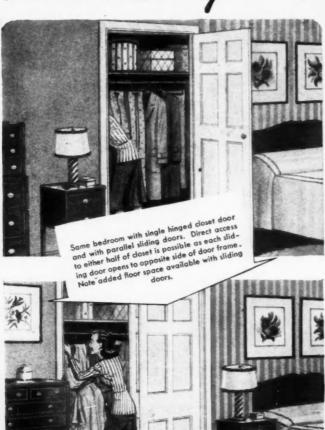
Extensive, sustained advertising has made "Pittsburgh" well known to your customers as the leader in store modernization work. That's another reason why it will pay you . . . in satisfied customers as well as profits . . . to use "Pittsburgh" Glass and Pittco Store Front Metal.



PAINTS . GLASS . CHEMICALS . BRUSHES . PLASTICS

PITTSBURGH PLATE GLASS COMPANY

For more Living room



USE VANISHING DOORS

Whether the job calls for tiny kitchenette apartments or a palatial mansion, there's no getting around one fact—hinged doors waste space! That is why more and more residential building plans specify vanishing doors.

With vanishing doors, sliding from side to side, there's no interference with the location of furniture, lighting fixtures, pictures, rugs—nothing in the room gets "behind the door." Used for closets and wardrobes, they permit direct access without fuss or bother.

Specify R-W Vanishing Door Equipment

For smooth, silent, trouble-free operation, specify vanvanishing doors installed with Richards-Wilcox No. 719
Vanishing Door Hanger and Wood-Lined Steel Track.
No oiling required . . . hanger wheel has Oilite self-lubricating bearing, rolls on self-centering wood track lining without metal-to-metal contact.

For Use In 2" x 4" Studded Walls

Richards-Wilcox No. 719 Vanishing Door Hangers and Wood-Lined Steel Track are designed for use in 2" x 4" studded walls. This outstanding feature is made possible by the R-W engineered "Ordinary Wall" pocket. For complete details—or free consultation without obligation—contact nearest Richards-Wilcox office.





1880-1948

E SASH BALANCES



No Finer Sash Balances Made-Regardless of Price!

Straight lip, overhead type for installation in head jambs. Single or double installation. Rust resistant

NOTED for Uniform

Also Made In Side Type and Turned Down Lip

Tension and Smooth Operation

Manufactured In the Following Weights:

41/2 - 6 - 810 - 12 - 14 - 16 lbs.

Circular on Request **Prompt Delivery**

DETROIT METAL PRODUCTS, INC.

1600 E. 10-Mile Road

Hazel Park, Michigan



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Smart styling, sparkling chrome grille and gleaming white porcelain-type enameled front give VENTROLA FANS a "Woman appeal" second to none. Grille and blade removable for easier cleaning—minimum operating cost—fully enclosed, noiseless, static-free motor with the power to move the maximum amount of air (over 800 C.F.M.) are features that increase their desirability. Units are easy to install—low in cost—Underwriter's Laboratory approved.

TO INSTALL - FIT ANY WALL



Adjustable expanding sleeve makes possible quick installation in brick or masonry walls. Sleeve contracts for installation in frames or narrow walls. Plug-in motor connection and electric outlet box are part of sleeve.



FAST DELIVERY

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6 common conditions

where WOLMANIZED PRESSURE LUMBER

protects against DECAY and TERMITES



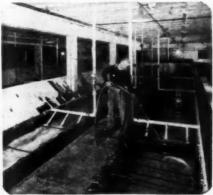
 Wherever moisture is condensed because of concrete or masonry.



Ground moisture and rain held in joints, etc., of outdoor structures.



Wood used in or near the ground open to attack by termites.



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NICH.

 Where steam and vapor from industrial processes are prevalent.



Walls, floors, ceilings subject to condensation from refrigeration.



 Stock barns, silos and other farm structures subject to high humidity.

ITS LONG LIFE MAKES LASTING CUSTOMERS

Industrial work is steady and profitable. It is even more so when you are able to deliver a

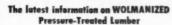
value in lumber, such as resistance to wood-decay and termites.

When you recommend "Wolmanized" pressure-treated lumber, you can point out that the extra cost of this lumber is less than the cost of replacement labor alone. And you can also point out—with actual service records to back you up—that Wolmanized lumber lasts 3 to 5 times as long as ordinary wood.

· Customers are quick to see the advantage of economy like this.

The long life of the Wolmanized lumber you put into a job will make lasting friends.

For full information and service records on Wolmanized pressure-treated lumber, see your local dealers or write to American Lumber & Treating Company.



A new booklet which tells the complete story of Wolmanized Lumber is yours for the asking write for your copy today.



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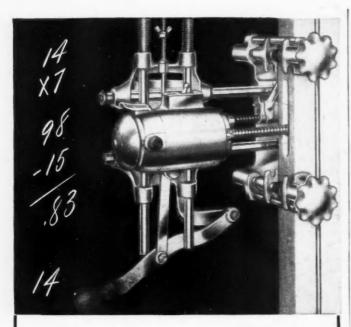
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• If you mortised 75 doors last year, a Stanley-Carter Lock Mortiser would have paid for itself and from now on, for years to come, would put money in your pocket everytime it cuts another mortise.

easy to use— Weighs just 26½ lbs.— sets up on the job and operates from any light socket. After 10 minutes instruction, any carpenter can turn out neat, clean mortises in 30 seconds flat. Depth and length of the mortise are controlled by two simple adjustments while width of the cut is governed by the size of the cutter used. Two self-centering clamps insure that every mortise will be in the center of the door regardless of thickness. After the first mortise is cut, height rods can be inserted to insure that all succeeding doors have the mortise properly located.

WRITE TODAY for full information about Carter Door Sets. Perhaps you'd like to have a Stanley-Carter power tool expert call on you and examine your whole setup with you. Maybe you'll see ways to cut costs right down the line. Stanley Electric Tools, Stanley-Carter Sales Dept., 534 Myrtle St., New Britain, Conn.



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LONG HANDLE CEMENTERS and PAVERS' TROWELS Highest grade spring steel blade. Steel-mounted ash handle 7 feet long. **ALUMINUM** GOLDBLATT MOUNTING PLASTERING TROWELS No. 2S each CEMENT FINISHERS' TROWELS 12-in. @ \$3.35; 14-in. @ \$3.60; 16-in. @ 18-in. @ \$4.10, each. All prices F.O.B. Kansas City, Mo. \$3.35 A complete line of Cementers' Sidewalk Edgers, Curb Tools, Sidewalk or Pavers' Groovers. GOLDBLATT TOOL CO. 1515 Walnut Street, Kansas City 8, Missouri BRAND TROWEL

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Home is in GROSS

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Not only Bendix washers but Bendix dryers

100 • • • are part of these new Gross homes!*

Why?

"Look-Ahead Builder" John C. Gross tells you two unbeatable reasons why he installs Bendix equipment in Gross Homes.

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Installing a Bendix automatic Washer, and a Bendix automatic Dryer, says Mr. Gross, increases the value of the property . . . makes it more completely equipped for modern living. And elimination of unsightly clothes-poles and clotheslines from back yards increases the beauty of house and grounds.

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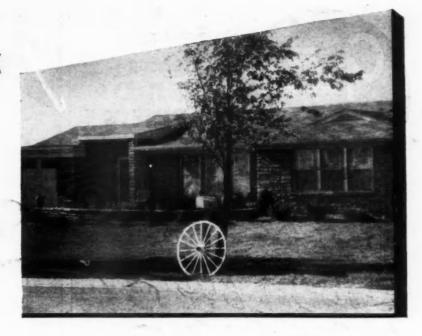
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DISPLAY THE SIGN OF A "LOOK-AHEAD BUILDER"!

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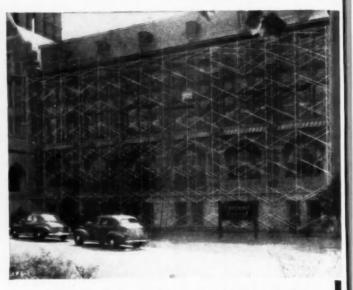
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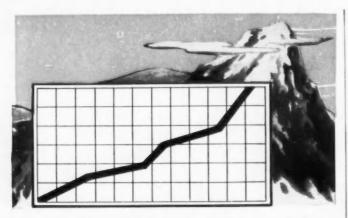
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r.p.m. Extra long 42"x80" tables are stress released to remain level and in perfect alignment with cutter head.
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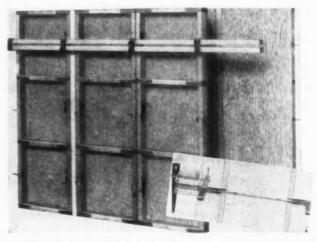


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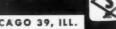
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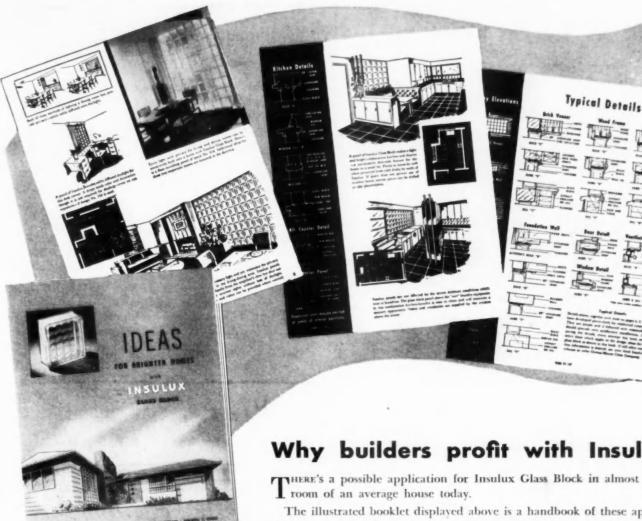
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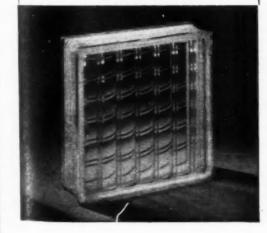
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There's a possible application for Insulux Glass Block in almost every room of an average house today.

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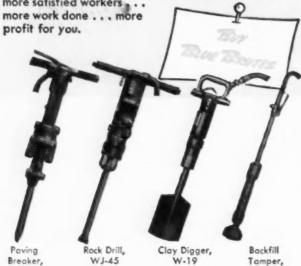
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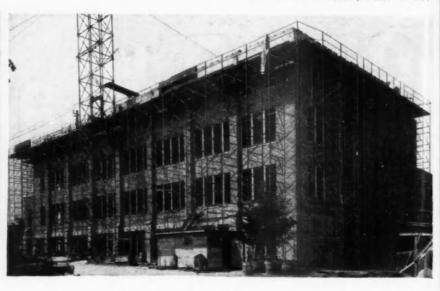
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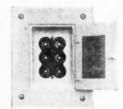


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... the superior Rock Wool Batt for insulating new houses or accessible attic spaces



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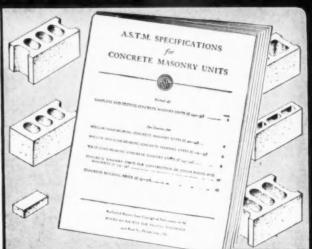
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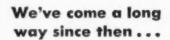
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NOTE THESE RICHMOND FEATURES

Combinations come with right or left-hand tray. Roll rim for cabinet installation or modern apron type. 5" ledge back. Drilled for deck-type swinging spout supply fitting. Finished in whiter white* acid resisting enamel and made of durable cast-iron.

Cut cost, save space with the Richmond Sink & Tray

The days of the big kitchen are gone. Space means money today, and that means smaller kitchens. Here's your tip-off on the kind of equipment to recommend to your customers. They need space savers . . . money savers . . . they'll appreciate Richmond's whiter white* sink and tray. It is the ideal kitchen combination for apartments, summer cottages, small homes, etc.

And how these combinations gleam! The white*

*Achieved by special Richmond enamel formula

Richmond finish assures a perfect match with under-sink cabinets. It's the white that stays white! So whenever space and money restrict installation of a separate laundry tray, specify the Richmond enameled cast-iron sink and tray.

Richmond sink and tray combinations are available now. Order from your wholesaler, or write for details to: RICHMOND RADIATOR CO., Dept.AB-6,19 East 47th Street, New York 17, N. Y.



Enameled Cast Iron Ware - Vitreous China - Perma Gloss - Gas Boilers - Gas Winter Air Conditioners - Oil Winter Air Conditioners - Gas Gravity Furnaces - Rediators

Sales Recipe

for Builders . . . Dealers . . . Architects



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Laboratory tests prove that the "Grand Rapids Invizible" is the most practical and efficient sash balance for double hung windows of every type.



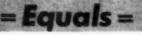
PUBLIC ACCEPTANCE

Advertised to 134,445,000 readership in Better Homes and Gardens, American Home, Farm Journal and Small Homes Guide, the "Grand Rapids Invizible" Sash Balance is first choice of home owners everywhere.



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No. 103 face plate, cone bearing type, and Nos. 175, 109, 110 sawtooth drive sash pulleys cover 95% of all pulley requirements.



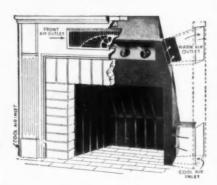
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The *Superior* Heat Circulating Fireplace

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Front view of HEATFORM installed, with part

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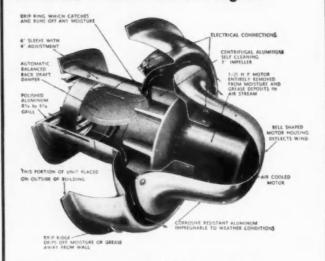
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GABRIEL SCAFFOLD BRACKETS

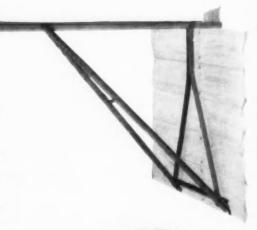
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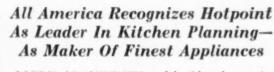


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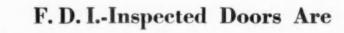
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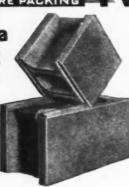
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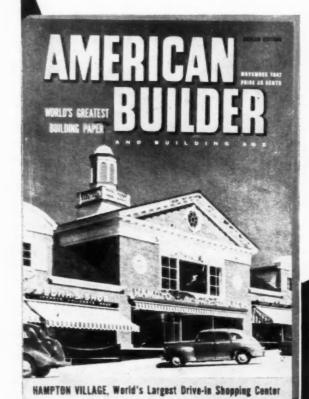
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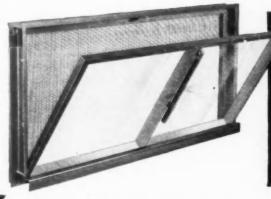
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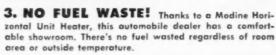
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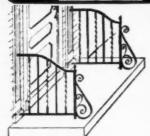
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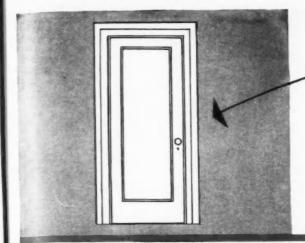
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