A New Department

TECHNICAL GUIDE
for Builders and Craftsmen

Six articles on apartment building
NAHB Convention Review
CELOTEX INSULATING LATH: Provides a strong, continuous base for plaster... with high insulation value.

CELO-SIDING: Strong, rigid, heavily coated with asphalt, granule-surfaced cane fibre board that goes directly over framing in new buildings, or over old siding. Needs no painting... provides siding, structural strength, insulation and exterior finish.

Colors: Buff, Green, Shell Gray.

CELOTEX INSULATING SIDINGS: Beauty treatment for old-looking homes—the only insulating sidings made with a core of Celotex cane fibre insulation board.

Provides new exterior finish plus insulation in one material. Goes right over old siding. Mineral granule finish never needs painting. Available as "CELO-BRIC", in colorful brick designs... as "CELO-STONE", in rugged stone design... and as "CELO-SHINGLE", the popular new wood-grained shingle design.

CELOTEX INSULATING SHEATHING: Strong, rigid, asphalt-coated cane fibre boards with 3 times the insulation value of yellow pine. A wall sheathed with Celotex Insulating Sheathing has greater bracing strength and lateral stiffness than a conventionally sheathed wall.

CELOTEX BUILDING BOARD: The world's finest insulation product. Combines insulation, structural strength, interior finish and durability in one material for many uses.

CEMESTO: A single-thickness wall material, with core of Celotex can fibre board reinforced on both sides with asbestos cement board. Provides great structural strength, excellent insulation, and both exterior and interior finishes.

CELOTEX INTERIOR FINISHES: Cane fibre tile and planks that build, insulate and decorate.

CELO-ROK WALLBOARDS: Superior gypsum wallboards for interior walls and partitions.

CELOTEX DECORATED PANELS: Plastic-coated, tempered hard board interior panels for quick economical new construction or remodeling. Does not chip or peel. Resists heat, cold, moisture, grease, and ordinary acids and alkalies. Wide range of colors.

THE CELOTEX CORPORATION, CHICAGO 3, ILLINOIS
It's an OPEN and SHUT case of BUYER PREFERENCE

WHICH IS THE RIGHT WINDOW TO USE?

For maximum economy — Type 2414N.
Meets most residential needs. For all general locations. One swing leaf provides 50% opening.

For maximum ventilation — Type 2424.
Provides 100% opening. Costs more than Type 2414N because it has two ventilators with Roto-Adjusters.

For maximum view — Type 4424.
Picture window, plus ventilation. Fenestra's many types and sizes provide a right window for every need in the home.

Home buyers don't like to wrestle with windows. You can't blame them. Give them modern windows—Fenestra® Steel Casements.

A twirl of the geared Roto-Adjuster and the swing leaf opens or closes. Fenestra Windows won't stick—can't warp or swell out of shape.

They're "easy" windows. Not only easy to open and shut, but easy to wash and screen and storm-sash—all from inside.

Budget-easy, too. Standardization streamlines Fenestra production—permits the low cost and high quality that are Fenestra's trademark.

Frame and sash are assembled, Bonderized for protection against rust, and finished with a baked-on prime coat of good paint—at the factory. Hardware, supplied with each unit, is easily attached.

Over the sink or buffet . . . bedrooms, living room, dining room—there's a right window in Fenestra's Residence line for every spot in the house. See your nearest Fenestra dealer for types and sizes, or write to Detroit Steel Products Co., Dept. AB-3, 2260 East Grand Blvd., Detroit 11, Michigan.

Fenestra
RESIDENCE STEEL CASEMENTS
Have you seen it done? Seen how fast, how practical, how economical Upson dry-built full-wall construction can be?

Then see it, or better yet, build just one home yourself with full-wall size Upson Strong-Bilt Panels!

Here is the time-saving quality construction method builders have been asking for. A way to build crackproof walls and ceilings that give added dollar value to a home without adding to its cost.

Here is an F.H.A. accepted material with proved public acceptance that speeds building!

Here is strong, sturdy material that makes the most beautiful walls you have ever seen. Six ply laminated construction—approximately \( \frac{3}{8} \)" thick that gives added insulating value. In panel sizes big enough to cover an entire wall in an average size room. Panels you can apply without visible face nailing. Panels anchored securely from the back by an amazing fastener, designed to compensate for normal structural movement—the patented Upson Floating Fastener.

Here is a wall panel you can apply without tiresome, costly taping and filling of joints. Without countersinking nails or filling nail holes. Here is a panel that will never delay your job a single day! A panel that carpenters can apply any month in the year.

Yes—take all the ideas and opinions you ever had about a wall material. Measure them against Upson Strong-Bilt Panels. Then try Upson dry-built full-wall construction. Cash in on its advantages now.

Phone, wire or write us for application details. We will send an experienced representative to help with your first job.

THE UPSON COMPANY
513 Upson Point, Lockport, New York
In This Issue

Publisher’s Page
Will the Middle Class Protect Itself? .......................... 7

Monthly Review of NAHB ....................................... 63

Editorial
Another Showdown Is Near ..................................... 73

FEATURES

Building to Keep Pace with Fast Growing City .............. 74
Builder Expands Operations in Spite of Limited Resources

Levitt’s New Home Models Accelerate Sales .............. 78
Houses Have Sales Clinching Features Adaptable to Smaller Developments

Bungalow Apartments are Desirable Income Property .... 82
Many Aspects of Private Homes Found in Multiple Family Units

Easy Servicing Features Motel for Year ’Round Occupancy .. 84
Competitive Market Demands Motels Be Designed for Easy and Economical Maintenance

Cliffwood—An Architect-Builder Co-operative Venture .... 86
Contemporary Design Finds Big Market in Eastern City

American Builder’s Blueprint House ......................... 89
Careful Open Planning Adds Feeling of “Space”

Builders’ Build While Public Housers’ Talk ................. 93
Private Builders Erect 144 Units in Less Time for Less Money than Similar Public Housing Projects

Apartments Remodeled for Commercial Center ............. 96
Ingenious Planning Transforms Apartment Buildings into Business Rentals

Eye Appeal with Usual Materials ......................... 97
Good Design Plus Judicious Use of Common Materials give Apartment Building Refreshing Modern Appearance

Solving the Student-Faculty Housing Problem at Purdue ..... 98
Purdue University Built and Operates 1,068 Family Living Units

Expert Sales Technique Makes This Large Scale Operation .. 102
Successful Public Relations Means Client Satisfaction, Says Builder

Sold at Their Worth—Not at Market Price .............. 104

Engineered House Construction Part IV ...................... 106
Manufactured Concrete Forms and Form Hardware

Heating Basementless Houses ................................ 110
Radiant Forced Warm Air Units Solve Problem of Heating Basementless Houses

Rehabilitating Farm Buildings Offers Opportunities ... 112
Farm Building Remodeling Provides Vast Market to Contractors

Wholesaler Essential to Successful Dealer and Builder Operations .. 114
Wholesale Distributors Perform Services That Save Money for Dealers and Builders

Lumber Served “Cafeteria Style” ................................. 116
Builders Drive Into Yards and Select Their Own Lumber

Low Cost Fireproof Houses ................................. 117
Comprised of Cinder Blocks, Steel Beams, Concrete Floors

Complete Home Building Service .................. 118
Home Planning Bureau and Building Materials in One Shop

The Home Building Industry Marches On .................. 120
R. E. Saberson’s Comments on Housing

New Products .................................................. 124
The Latest in Equipment

DEPARTMENTS

Trends .......................................................... 49
How Big a Drop in Prices?

On and Off the Record ......................................... 51

Editors’ Round Table .......................................... 55

Technical Guide, How-To-Do-It and Better Detail Plate .... 128

Dealer Review ............................................... 122

Catalogs ...................................................... 142

Index to Advertisers ......................................... 244
Here's a combination that will help you sell — Roddiscraft Quality Products — Roddiscraft Quality Service.

The knowledge and experience gained through more than fifty years of working with wood is built into Roddiscraft plywood. You can see the difference in faces, edges, corners—it's a quality product.

You know Roddiscraft knows your needs when you deal with our warehouses. They are service-centers equipped and stocked to meet the needs of customers in each area.

This combination of quality products and service keyed to your needs is a Roddiscraft tradition.

Fir Plywood
Available in both interior and exterior grades. Complete warehouse stocks in standard sizes and thicknesses.

Roddiscraft Hardwood Plywood
Lumber and veneer core — available in a variety of domestic and foreign woods. Standard sizes and thicknesses available for immediate delivery from warehouse stocks.

Formica sheet stock available in a wide variety of colors and patterns.
Will the Middle Class Protect Itself?

The writer of this page emphasized in the February issue of American Builder and in a previous editorial in its sister publication, Railway Age, that the middle class in the United States is being rapidly liquidated and showed how this is being done. The editorial in Railway Age has been quoted in newspapers throughout the United States, and both it and the article on this page in the February issue of American Builder have elicited many letters. Most writers of the letters agree that the middle class is in process of being ruined, and some ask whether this can be stopped and, if so, how.

The answer to that question seems obvious. Senator McGrath, chairman of the Democratic National Committee, said "Labor did it."—meaning that the labor unions elected Truman. The labor unions did not do all the electing of Truman, but no informed person questions the fact that they did most of it, or that, in consequence, they are dictating to Truman and his northern wing of the Democratic party the socialistic policies tending to establish a charity state—called a "welfare state"—that he is advocating.

The manual workers composing labor unions have by organized political and economic action got control for all practical purposes of the economy and government of the United States, and are engaged in using that control to liquidate the middle class. The middle class can save itself only by organizing or taking control of some already existing organization for effective counter political and economic action. Its natural and probably most effective course would be to use for political action the Republican party, which it already controls without apparently knowing it. More than twenty-two million persons, who were all against the New Deal and were virtually all middle class, voted for Dewey—only a fraction less than voted for Truman. Also millions who were opposed to socialistic policies did not vote at all because they became disgusted with Dewey for carrying on a campaign intended to appeal to those who believe they benefit by socialistic policies rather than to those who have to pay for them.

The statement often has been made that the Republican party will have to become more "liberal"—i.e., more socialistic—if it is ever to win again. Well, if it becomes more "liberal," the only people who will care a curse whether it ever wins again will be Republican politicians. And in that case for whom are the twenty-two million anti-socialists who voted for Dewey and the millions of them who stayed at home because they disliked him—whom are they going to vote for? Every politician with a grain of sense knows that the Republican party never can win without their votes. Dewey ignored them during the last campaign in the hope of gaining more by appealing to the proletariat, which was organized and class conscious, than to the bourgeois, which was neither organized nor class conscious. That is why he lost.

The middle class has many organizations that are supposed to be protecting its interests—the National Association of Home Builders, the Association of American Railroads, the National Association of Manufacturers, the Chamber of Commerce of the United States, the American Farm Bureau Federation, the American Medical Association and so on ad infinitum. Yet the socialization of professions and industries and the liquidation of the middle class go on with accelerating speed. Why? Because all such organizations as have been mentioned seek only to protect special interests of parts of the middle class and often actually promote socialization of other special interests. How many of these organizations have helped the railroads to oppose socialization of transportation, or the home builders to oppose socialization of housing, or the doctors to oppose socialized medicine?

All these organizations of the middle class should get together and coordinate their efforts—"one for all, and all for one." Also, the middle class can learn something from the labor unions' practice of going into politics and helping beat candidates who don't favor the "right" policies and helping elect candidates who do.

Has the foregoing been written in an effort to incite class war? No, just in an effort to incite the middle class to offer organized resistance to the class war that already is being carried on to destroy it, and with it the entire economic and political system of the United States.

Publisher's Page

Will the Middle Class Protect Itself?
Hundreds of homes have been built around Servel ALL-YEAR Air Conditioning

When you plan new homes around Servel All-Year Air Conditioning, you not only provide your clients or buyers with a heating and cooling plant; you give them comfort. For, with a Servel unit, the home owner can control his indoor climate the year round ... at the flick of a finger.

In summer, the Servel All-Year Air Conditioner refrigerates the air, removes sticky, wilting humidity. In winter, this same unit floods the home with warmth, adds just the right amount of moisture for comfort. In between seasons, Servel circulates air without drafts or "layers" of hot and cold air. Year round, Servel filters out dust, dirt, and irritating pollen. And no effort or extra work is required on the part of the home owner. He simply dials the desired climate and flips a switch for cooling or heating.

Planning your clients' homes around Servel All-Year Air Conditioning gives you the opportunity for many innovations in design. You can effect construction economies, too, which will materially reduce the net cost of the conditioner. Once installed, Servel is economical to operate. Every unit is backed by a 5-year factory warranty against defective parts.

Get the facts on Servel All-Year Air Conditioning from your local Gas Company or Servel dealer. Or write direct to Servel, Inc., 1903 Morton Ave., Evansville 20, Indiana.

OKLAHOMA. "Our entire family praises our Servel All-Year Air Conditioning unit, and we are always proud to have visitors come in," writes Mr. G. W. Athey of 1106 W. York Street, Enid.

LOUISIANA. "We are very much satisfied with our investment in a Servel All-Year Air Conditioner," states Clay W. Beckner, 5 Newcomb Boulevard, New Orleans.
TEXAS. "We keep our home cool all summer and warm all winter with Servel All-Year Air Conditioning," comments Mr. Nelson Weggener, 7700 Mockingbird Lane, Dallas.
To Complement

In construction products CECO ENGINEERING
CECO Architectural Projected Windows

In keeping with architectural design, monumental buildings need windows that complement their structural magnificence... windows designed architecturally with an eye to good appearance. Ceco's Architectural Projected Window is just such a window. From every angle, here is outstanding beauty... complete utility. In Ceco's Architectural Projected Window, the sections are designed for maximum strength—the arrangement of glass lights makes for maximum beauty. Consider these features:

1. The frame section is 1½" deep. The ventilator section is 1¾" deep. The extra ½" added to the ventilator depth provides the strength so necessary for proper window performance.

2. The frame and ventilators are welded at all four corners.

3. Standard hardware is solid bronze.

4. Easy to screen... a great convenience in public buildings, schools, and commercial and industrial buildings.

Yes, from every angle, here's a handsome window with every utility. So, specify Ceco Architectural Projected Windows, for no matter what the architectural design, Ceco has the right window for you.

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

Partial List of Ceco Products

METAL RESIDENCE CASEMENTS • INDUSTRIAL WINDOWS AND DOORS • METAL FRAME SCREENS • ALUMINUM FRAME STORM WINDOWS • ALUMINUM COMBINATION STORM WINDOW AND SCREEN UNITS • METAL LATH AND ACCESSORIES • STEELFORMS • REINFORCING BARS • STEEL JOISTS AND ROOF DECK • HIGHWAY PRODUCTS
The smooth, even glide of the mason's trowel gives him immediate proof of the buttery plasticity of Atlas Mortar Cement. Along with its rich, fat plasticity, contractors appreciate the satisfactory yield of Atlas Mortar. They like its strength and color too. And the outstanding durability of Atlas Mortar Cement is proved by rigid laboratory tests.

Backed by years of research, Atlas Mortar Cement complies with ASTM and Federal specifications for masonry cement.

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

* * *

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

SKILLED HANDS PREFER

ATLAS MORTAR CEMENT

THE SATIN OF MASONRY CEMENTS

"THE THEATRE GUILD ON THE AIR"—Sponsored by U. S. Steel Subsidiaries—Sunday Evenings—ABC Network
SCHLAGE ...first name in cylindrical locks

Chicago's Wesley Memorial Hospital
A Schlage installation of heavy-duty cylindrical locks.
Architects: Engard, Burt and Whitman
Contractor: Theodor D. Fugard

Illustrated at left was used in this outstanding hospital.

Cambridge Design

SCHLAGE LOCK COMPANY
SAN FRANCISCO • NEW YORK
How to make your house the hit of the HOME SHOW

DESIGN IT FOR ELECTRICAL LIVING
the WESTINGHOUSE Way

For Best Utilization of Kitchen Space
For years, Westinghouse has carried out exhaustive studies to determine how to design maximum usefulness into kitchens. Now these studies are available to help you put greater value and buyer appeal in your houses.

For Latest Ideas on Economy in Laundries
Automatic washers and dryers have changed the laundry habits of America. Happily, for builders, laundries designed for this new development require less floor space. It means dollars saved, plus powerful sales appeal. We'll show you how.

For Lighting That Adds Dramatic Showmanship
Good lighting is a vital part of modern living. Decorative lighting provides a detail that adds a dramatic lift to exhibit houses. Prospects see in these details a distinctive feature they can point to with pride . . . softens them for a sale.

For Wiring That Assures Buyer Satisfaction
No-Fuze Loadcenters serving the right number of circuits—and properly placed switches and receptacles—are the requirements of an electrical system that will put life in a house, the kind of life your prospects are expecting in an electrical age.
YOU CAN BE SURE IF IT'S
Westinghouse

EQUIP IT WITH PRODUCTS HAVING
Outstanding Consumer Acceptance

New Models That Ring the Bell
An unprecedented wave of approval heralds the new line of Westinghouse appliances, further evidence that the continuing study by Westinghouse of what housewives want gets results. It's your assurance that this equipment will add power to your selling.

Heaviest Advertising in History
Always well advertised, Westinghouse appliances will be backed with the heaviest advertising program in history during 1949. Every day, millions of people will see and hear this great name . . . be reminded of the superior value of its products. You can put this advertising to work for you.

Products That Have Demonstrated Outstanding Service
30,000,000 owners testify to the excellence of Westinghouse products. Likely, many of your prospects have some Westinghouse appliance . . . are enthusiastic owners . . . accept this equipment as evidence of inbuilt quality in your houses.

Visible Trademarks That Help Sell
The Westinghouse trademark on appliances is one of few marks of quality that are visible in your house. Most other materials and equipment lose their identification, once they go into the house. With the distinguished Westinghouse nameplate, you give the owner a lasting symbol of the quality of the entire house.

FREE—Helpful Planning Guides
"How to Make Your House the Hit of the Home Show";

Write Better Homes Bureau, Westinghouse Electric Corporation, P.O. Box 868, Pittsburgh 30, Pennsylvania.
"REGARDLESS of other features in the home," declares R. N. Donoho of Fort Smith, Arkansas, "the Hotpoint All-Electric Kitchen always attracts most attention and comment."

BUILDER DONOHO well remembers the sweltering, 100-degree day last summer when 4000 persons turned out to view his model home featuring a Hotpoint All-Electric Kitchen. Today he is developing an entire subdivision and says: "We are equipping all of the better homes with Hotpoint All-Electric Kitchens."

BUILDERS EVERYWHERE are finding Hotpoint Kitchens great sales clinchers. Hotpoint Appliances add the extra value needed to sell today's value-wise home buyers—and they make extra profits for builders, too! The cost can be included in "package mortgages" in most states.

WHY NOT put these "star new home salesmen" to work making extra profits for you? See your Hotpoint distributor or dealer...or write to Hotpoint Inc. (A General Electric Affliliate) 5600 West Taylor Street, Chicago 44, Illinois.
A GREAT SALES MAKING COMBINATION!

SPEED LOADER

RETAILS FOR ONLY $1.95

Here’s the calking gun you’ve been wanting—a gun that is priced so low it paves the way to calking sales you’ve never been able to touch before. It’s light, sturdy, fool-proof. This gun will sell itself.

OUR FAMOUS Nu-CALK

PLUS THIS

With SPEED LOAD you offer your customers the world’s finest calking compound PLUS the most efficient and practical load on the market. Our new, improved load has a specially designed cap that makes it impossible for the metal cap to pull loose from the fibre board tube.

SPEED LOADS packed 10 loads to a carton. Full freight allowed on 8 cartons or more.

STANDARD GUN STILL AVAILABLE

Our CG-3 Standard Calking gun is still a big favorite with experienced calking appliers. Sturdy, light weight. Easy trigger action, yet powerful piston action. Barrel 2” by 9¼”.

SELL Nu-Glaze INSTEAD OF PUTTY...

Nu-Glaze does the job better for your customers... makes a bigger profit for you. The perfect material for glazing wood or metal sash.

Furnished in ½ pint, pint, quart, 5 lb. and 12½ lb. cans. Also in 25, 50, 100, and 880 lb. drums.

MACKLANBURG DUNCAN CO.
OKLAHOMA CITY 1, OKLAHOMA
Nichols of Kansas City saves 5 working days and cuts costs $100 per house by using Bruce Finished Floors

THIS IS WHAT J. C. NICHOLS CO. SAYS

“We have used Bruce Factory-Finished Strip Flooring in houses in all price brackets from our lowest priced house to our most expensive. We have found its acceptance very good, whether the house was built for an owner or for the sales market. Today the cost is from 10 to 12 cents per square foot less than job-finished flooring. We also find a great saving in time, since there is no delay in other work while sanding, filling and finishing on the job.”

Nichols' famous Country Club District in Kansas City has been called "America's Finest Residential Area." It covers 5,000 acres, includes thousands of homes, ranging from the small houses shown above to large estates.

Bruce Finished Floors Have Many Advantages:

No time-consuming sanding and finishing on the job

No interference with work of other trades

Factory finish costs less than on-the-job finish

It's the finest finish ever given hardwood floors

Owners praise beauty, durability, easy upkeep

BRUCE Finished FLOORS

With the Wonderful New 1949 Finish

PRODUCT OF E. L. BRUCE CO., MEMPHIS, TENN.
World's Largest Maker of Hardwood Floors

New Booklet...

"A Life Saver for Builders."
For free copy, write
E. L. Bruce Co.,
Memphis 1, Tenn.
PLYBASE is a NEW grade of Interior-type Douglas fir plywood—manufactured especially as a smooth, firm, rigid base for linoleum, asphalt tile, wall-to-wall carpeting and other similar floor coverings. PlyBase is an excellent backing for wall tile and other panel materials.

**Floor Coverings Look Better...Last Longer...When Laid Over PLYBASE**

Linoleum, Tile, Carpeting—All Need This Better Base Panel

Because it presents a smooth, solid base, PlyBase reduces wear on linoleum, carpeting, asphalt tile and other modern wall to wall floor coverings.

Quick and easy to install...there are several handy panel sizes to meet the needs of any job. Because joints and cracks are reduced to a minimum, the smooth, firm surface reduces over-all wear.

Sanded smooth, PlyBase presents a surface that is tight and solid for best finished covering appearance and wear. In addition to new work, PlyBase serves well in remodeling to cover old, rough, worn flooring with a smooth, firm surface for new covering.

For walls, too—PlyBase serves as a backing for wall tile and other wall coverings requiring a smooth, solid backing.

**For Subflooring—PLYSCORD**

Under PlyBase, or any other type of finish flooring, PlyScord is the ideal subflooring. It offers a rigid, sturdy working platform...insulates and protects against cold from below. PlyScord can be quickly, easily and economically applied for roof and wall sheathing as well as for subflooring.
The closer you get to windows—the more clearly you see Reynolds four-point superiority

REYNOLDS ALUMINUM RESIDENTIAL CASEMENT, FIXED AND PICTURE WINDOWS

Four-point superiority in engineering detail, complete in all fittings for any kind of construction. 98 types and sizes available. Write for 16-page booklet, including installation diagrams.

Reynolds Metals Company, Window Division, Louisville 1, Ky. Offices in 32 principal cities.

Reynolds Metals Company, Building Products Division, 2003 South Ninth Street, Louisville 1, Ky.

Please send detailed literature on the products checked:

*Corrugated □ *5-V Crimp □
*Snap-Seal Roofing □ *Weatherboard Siding □
*Industrial Corrugated □ *Gutters and Downspouts □
*Built-up Roofing □ *Flashing □
Reflective Insulation □ *Stipple-embossed finish

Name ____________________________
Address __________________________

WORLD'S LARGEST PRODUCER OF ALUMINUM BUILDING PRODUCTS

If you see rust you know it's not Reynolds Aluminum.
For the acid test... count on a BRIGGS bathtub—
it's stainproof!

Stainproof (acid-resistant) porcelain enamel is only one of the safety, comfort and luxury extras which have placed Briggs Beautyware 'way out in front of the field. Only Briggs makes the tub with the famous Safety-Bottom. Other features include the wide-rim seat ... greater area of level bottom ... integral tiling flange which provides leakproof edges, tub to walls. Only Briggs prices all this revolutionary designing right down to earth for every American home! Write now for new catalog featuring Briggs plumbing fixtures and Briggs brass. Briggs Manufacturing Company, 3025–c Miller Ave., Detroit 11, Michigan.

ALL Briggs bathtubs are furnished in stain-proof (acid-resistant) porcelain enamel. Only steel fixtures give this extra protection and beauty at no extra cost! Note the patented Safety-Bottom, for safe tub and shower bathing.
“SOUND” PLANNING CALLS FOR
BUILT-IN TELEPHONE RACEWAYS

It's easy to build a "Telephone Planned" home. That means concealed telephone wires, and preplanned, conveniently located telephone outlets.

Telephone raceways will do the job. Just a few short lengths of pipe or tubing, installed during construction, will carry telephone wires inside the walls to the outlets.

For homes of any size, your Bell Telephone Company will be glad to help you plan modern telephone arrangements. Just call your Telephone Business Office and ask for "Architects and Builders Service."

BELL TELEPHONE SYSTEM
How to make walls watertight with REVERE HOME FLASHING

REVERE HOME FLASHING is a new packaged system for use in valleys and flashing on low-cost houses. Based on a special size, special temper and special gauge of sheet copper, it is packaged, complete, ready to install.

Each package contains 10 sheets of this special copper, cut to 18" x 48"; 200 bronze nails; and complete, illustrated instructions for installation. Simply follow these step-by-step instructions and you are sure of protection that is good for a great many years.

Revere Home Flashing provides low-cost, easy-to-install weatherproofing not only for wall joints, but also at valleys, doors, windows, chimneys, and other roof joints. In addition, being copper, it adds an important selling point to the house; it shows that the builder uses quality material; and it assures complete satisfaction for the owner. And it does all this at such low cost that you'll want to start using it right away.

Your building supply dealer has Revere Home Flashing in stock or can get it for you promptly. Ask him about Revere Home Flashing today.
For Low Cost Homes...

Why not USE PART OF THE ATTIC FOR THE "FURNACE ROOM" WITH A GAS-FIRED JANITROL THERM-O-ATTIC FORCED AIR FURNACE

Put the heating in the attic? Yes, it's entirely practical with a Janitrol Therm-O-Attic—the installation works like a charm—we have testimonials to prove it. Now, think of the advantages for low-cost homes, where you want to merchandise all that's modern, but you've got to trim costs without seriously sacrificing quality.

1. No basement is needed for the heating plant.
2. You don't use up scarce closet space.
3. Short simple duct systems cut down installation costs.
4. Grills at floor levels lead into return air ducts.
5. Heat is comparable to a more expensive installation of a winter air conditioner.
6. A merchandising plus—the Janitrol Unit can be operated in summer for attic ventilation to exhaust hot air from rooms.
7. Janitrol Therm-O-Attic furnaces are complete, factory-assembled and tested packages to further simplify installation.

So, here's the way to put more sales appeal into your smaller homes—provide all the advantages of clean, automatic and economical gas heat with the famous Janitrol name, and at the same time cut your costs. Write today for complete specifications and operating data.

Compact Janitrol Therm-O-Attic Forced Warm Air Furnaces are available in 4 sizes to meet practically every Btu requirement and are equipped for operation with natural, manufactured or LP-Gases.
A modern laundry built of a modern material

K&M "Century" APAC was a perfect choice for the Blue Ribbon Laundry's attractive new building. It adds the right finishing touch to this modern design. And APAC's smooth, neat surface invites business...suggests like qualities of smoothness and neatness in the workmanship of the laundry.

Recommend K&M "Century" APAC for any exterior or interior finish that calls for modern, fireproof construction. Your customers will like its good looks, economy, service qualities. You'll like it because of its easy handling, quick application, adaptability...factors that add up to good profits for you.

Get full information about "Century" APAC from your K&M Dealer, or write direct to us. We'll attend to your inquiry promptly.

K&M "Century" APAC advantages

ATTRACTIVE...The smooth finish and light gray color of APAC never needs protective painting...though it can be painted if desired.
EASY TO USE AND APPLY...APAC saves time...just score it, snap off and fasten with nails or screws...full size sheets, 4' x 8' (32 sq. ft.) can be laid at a time.
DURABLE...APAC is made of asbestos and Portland cement...is completely fire-resistant, and proof against rats, rust and weather. It grows tougher with age.
ECONOMICAL...Low first cost, a long maintenance-free life, fast application without special tools...all combine to make APAC one of the most economical of building materials.

Original manufacturers of Asbestos-Cement Shingles in this country.

KEASBEY & MATTISON
COMPANY • AMBLER • PENNSYLVANIA
The New, Low-Cost Portable Saw-Shop

Here it is!

The New, Low-Cost Portable Saw-Shop you've waited for!

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

Light in weight (about 200 lbs. net), this DeWalt is nevertheless perfectly balanced. It is equipped with the entirely new and exclusive DeWalt-built, voltage-relay capacitor motor which operates on either 110 or 220 volts—a motor which develops 2½ to 3 times the horsepower it’s rated for. It is a motor you can depend on for continuous, trouble-free service.

What’s more, this DeWalt can be equipped with legs for inside shop use. With this DeWalt, your men will help you set new standards of performance and quality in building your houses better, faster and at lower costs.

Order one now for immediate delivery. Write for catalog. DeWalt, Inc., 13 Fountain Avenue, Lancaster, Penna.
Eliminate the foul-smelling, disease-spreading garbage can. Make the Mullinaider electric garbage disposer standard equipment in your houses. Adds much more in home value than it adds in cost.

Everybody's healthier and happier in a community that has no garbage cans.

Knowing this, a great many progressive builders are planning communities completely free from garbage, free from the ill health and disease that garbage causes.

Such a builder is Lincoln Construction Company, whose new development in Dearborn, Michigan, has a Youngstown Kitchen of white-enameled steel and a Mullinaider electric garbage disposer in every house—and not one garbage can.

Their satisfaction is aptly expressed by Barney Katzman, who says, "We cannot praise the Mullinaider sufficiently." He also reports the City of Dearborn is well pleased with the new garbage-less community, and that home buyers are, too.

Make the Mullinaider standard equipment in houses you build. You will be giving purchasers a feature they want; you will also save them the expense of future installation. For more details, ask any Youngstown dealer or write Mullins Manufacturing Corporation, Warren, Ohio.
YOU TRY IT! This 235 pound man actually stood on a Velon screen for fifteen minutes—yet it returned precisely to its original shape almost immediately.

AMAZING STRENGTH ASSURES EXTRA SALES

One sale leads to another with Velon screening. (and that's for sure!) Thousands of satisfied customers have installed Velon screening. Hundreds of dealers sell Velon on its strength and durability. Your customer will want permanent Velon screening on every window in his house. He will like the fact that Velon requires no upkeep, can stay up the year 'round, never stains sills or siding. No ordinary screening offers so many advantages. Don't miss out on sales of Firestone Velon screening this spring. Check your suppliers or write Firestone, Pottstown, Pa., for early delivery.

- won't bulge or sag  - won't rust or rot
- won't stain siding  - never needs painting
Recognized by millions as the finest

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

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

First in design...first in demand

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

You needn't

You needn't

You needn't

You needn't

You needn't

You needn't
You make any home a better value when you build with

**American-Standard**

- The extensive advertising program we are running every month in leading national magazines and farm journals is creating a bigger market than ever for American-Standard Heating Equipment and Plumbing Fixtures. And this strong public acceptance is a big advantage to you who put these quality products in the homes you plan or build.

By featuring American-Standard in your own advertising... and by prominently displaying the familiar American-Standard "Installed Here" sign on the job, you tell everyone that only the best is good enough for your homes. And, the finer the heating and plumbing your homes have, the greater their value... the easier they'll sell.

Your Heating and Plumbing Contractor welcomes an opportunity to give you up-to-the-minute information about the complete American-Standard line. **American Radiator & Standard Sanitary Corporation**, P. O. Box 1226, Pittsburgh 30, Pa.

---

**FOR BEAUTIFUL BATHROOMS**

American-Standard Plumbing Fixtures enable you to achieve many striking effects in bathroom beauty and utility. Shown here are the Neo-Angle Bath, Companion Laundry and Master One-Piece Water Closet. All come in gleaming white and a wide variety of attractive colors.

---

**FOR COMFORT AND ECONOMY**

American-Standard makes heating equipment for every type of heating... for every kind of fuel. All units are expertly engineered and ruggedly constructed for efficient and economical performance and long, trouble-free service.

---

Look for this Mark of Merit
When the letters FDI appear as part of the grade trade-mark they certify that the doors so marked not only meet quality Commercial Standards CS73-48 but have been officially inspected by the Fir Door Institute and, at the buyer's request, will be covered by notarized Certificate of Inspection.

BP doors are of multiple-piece-stile construction and are so designated because they are ideal for paint or enamel finish.

**FIR DOOR INSTITUTE**
*Tacoma 2, Washington*

---

**STILES, RAILS, AND MULLIONS**—This stock shall be of vertical grain faces with some coarse grain permitted. It shall be sound in all respects, and may contain sap, light stains, streaks, burls, and neatly repaired pitch seams. Glued-up members are permissible. A moisture-resistant glue shall be used. Mixing of woods is permissible provided both stiles are of a single specie.

**PANELS—FLAT VENEERED**—The standard thickness of 3-ply flat veneered panels shall be \( \frac{3}{4} \) inch after sanding. Each face shall be of one or more pieces of firm smoothly cut veneer. When of more than one piece, it shall be well joined and reasonably matched for grain and color at the joints. It shall be free from knots, splits, checks, pitch pockets, and other open defects. Streaks, discolorations, sapwood, shims, and neatly made patches shall be admitted.

**PANELS—RAISED**—The standard thickness of raised panels shall be not more than 9/16 inch before sanding and not less than 7/16 inch after sanding. They may be either slash or mixed grain, or mixed woods and shall conform to the grade of the stiles and rails. Glued-up, solid panels are permissible.
Better designed — easier to install — better looking and safer, the new Brainard Brite-Lite Areawall comes in two styles and all standard sizes.

Check these Brite-Lite Features

✔ Better Design — Brite-Lite is specially designed to reflect a maximum of light into the basement. A bright long-lasting mirror-like finish that requires no paint assures brighter basements.

✔ Safer — Brite-Lite is constructed of a single piece of metal. No bolts, welds or rivets to fail. And Brite-Lite rolled top edge and special corrugations adds rigidity—increases durability.

✔ Stronger — Brite-Lite is made of heavy gauge copper-alloy, rust resisting galvanized steel. New ductile steel that is strong—permanent and safe against freezing and thawing.

✔ Easier Installation — The wall attachment flanges of Brite-Lite are flattened to assure tight anchorage. Holes are punched entire length of flange with top holes elongated for bolts or lag screws . . . Hardened masonry nails are supplied with each unit.

TEL-O-POST is the original all-steel adjustable jack post. When adjustable jack posts are needed . . . buy TEL-O-POST.

Brainard Steel—Strong fixed length posts are available in single posts or carload quantities. They are easy to install . . . fit either wood or metal beams . . . and come in a wide variety of lengths.

See Brite-Lite at your Building Supplies, or Hardware Dealer. Write for literature.

I would like to know more about Brite-Lite Areawalls.

BRANIND STEEL CO., Warren, Ohio Dept. 639

Name ..................................................
Address ...............................................
City ..................................................
Zone ................................................
State ...............................................
New AMERICAN Super Eight

**New AMERICAN Super Eight**

**All New!**

American's sensational new Super Eight is not "souped up" Standard—it's not a "hot rod" machine! It's all new, specially designed to save time and cut costs on every floor polishing job!
Lower Building Costs!

SUPER EIGHT FLOOR SANDER

✓ Twice as FAST!
Saves job-time with high speed sanding! Cuts twice as fast as Standard Sander.

✓ Adjustable Speeds
Single adjustment quickly changes the drum speed... range 1600 to 2800 r.p.m.

✓ Big Power-2 H.P.
A full 2 H.P. motor gives you super speed and power to get the job done fast—and save money!

✓ Double Volume Dust Pick-Up
New design makes dustless sanding a reality—it has twice the capacity!

✓ Compact Design
No waste space in motor or machine. Low center of gravity.

✓ American-built Dependability

Now—American brings you the biggest advancement in floor sanders since aluminum replaced the old cast iron machines! This sensational new American SUPER EIGHT meets the need of present-day contractors—helps them save hours in floor surfacing and cut costs! It's all new—from 8" drum to dust bag—a product of American Research perfected after nearly four years of development and "proving ground" use by floor surfacing contractors! See it! Use it! You'll like the way it handles—so compactly built—so well balanced! You'll like the way it saves sanding time and money for you! Send coupon for more details.

THE AMERICAN FLOOR SURFACING MACHINE CO.
511 S. ST. CLAIR ST., TOLEDO 3, OHIO
Please send free description and prices on the new American Super Eight Floor Sander, without obligation.

Name ..................................................
Street ..............................................
City .................................................. State ..........................
THOUSANDS OF HOME OWNERS are remodeling troublesome swinging garage doors to smooth operating overhead doors. And the many advantages of the Coburn #500 Hardware Set have made it a leader in the field.

The Coburn #500 Set is adaptable to practically all types of garages—on remodeling jobs or new installations. It is easy to erect and operate, does not interfere with usable floor space and, even though it is high in quality, it sells fast in the lowest price field.

Write today for catalog showing full line of hardware for garage and barn sliding doors. Other Coburn Products include fire door hardware, overhead trolleys and conveying systems for carrying loads up to 3,000 lbs.
Builders prefer them for their luxury appearance and ease of application. Homeowners prefer them for their beauty, economy and care-free service. Stained cedar shakes are fast becoming America's first choice for sidewalls because they answer the demand for quality housing materials at low cost, and minimum cost-per-year of service.

Stained shakes are re-buttled and jointed to assure straight, unbroken course lines and tight, invisible joints. For complete information, lumber dealers should write direct to any manufacturer listed below.

**REFER TO SWEET'S FILE 8b/7a**

for complete details and specifications

**ASSOCIATED MANUFACTURERS**

- Canadian Forest Products, Ltd., Vancouver, British Columbia
- The Robert McNair Shingle Co. Ltd., Vancouver, British Columbia
- Creo-Dipt Company, Inc., North Tonawanda, New York
- Everett Shingle & Shake Company, Everett, Washington
- Capilano Shingle Company, Ltd., Vancouver, British Columbia
- Perma-Products Company, Cleveland, Ohio
- West Coast Stained Shingle Co., Seattle, Washington
- Portland Shingle Company, Portland, Oregon
- Wood Beautifiers, Seattle, Washington
- Colonial Cedar Company, Seattle, Washington
"I saved $3,500 for my client... on installation costs by recommending and installing WARM AIR instead of wet heat"

Mr. Henry Ackerman of Ackerman Plumbing & Heating Company.

View of Clare County (Michigan) Road Commission Garage. Heating contractor, Ackerman Plumbing & Heating Co. of Clare, Michigan.

The Clare County (Michigan) Road Commission has informed me that I saved the County $3,500 by recommending and installing warm air heat for their County Garage. This represented a 30% reduction over the lowest bid for wet heat.

Daily operation cost reports indicate a further savings. The unit installed was a Jackson & Church — "Power-Rated" model CC-2000, stoker fired, with an output of 1,600,000 Btu's per hour. The unit works perfectly. The furnace and blower handle 15,000 cfm with frequent air changes, ample humidification... plus filtering.

For 20 years I have been installing only wet heat for big jobs... but I have been converted to warm air heating because of the tremendous savings to the customer in installation and operating costs.

I like the extra features... filtered air-humidification... frequent air changes... that warm air heating gives. So do my clients."

Statement of Mr. Henry Ackerman on file with Jackson & Church Co.

A Jackson & Church "Power-Rated" stoker-fired heater is satisfying a heat loss of 1,600,000 Btu's at low cost. Unit handles 15,000 cfm.

AMERICA'S LARGEST AND MOST COMPLETE WARM AIR HEATING LINE

A PRODUCT OF JACKSON & CHURCH CO., SAGINAW, MICHIGAN

"Work well done since '81"
NATIONAL ELECTRIC FLEXSTEEL FLEXIBLE STEEL CONDUIT available for immediate shipment

An inexpensive conduit system for the finest types of construction. Use it in locations not subject to dampness, acids, fumes, oil or gasoline.

Your National Electric Wholesaler sells FLEXSTEEL flexible steel conduit.
Her's Why It Pays To Specify

Pittsburgh Steeltex Lath For Plaster

You get low maintenance and high fire protection in your buildings with Pittsburgh Steeltex Lath for Plaster. This combination of galvanized welded wire mesh and absorbent backing makes possible positive embedment of the wire mesh and provides maximum reinforcement and protection against plaster cracks. Also this reinforcement has earned high fire ratings for Steeltex including Underwriters' Laboratories, Inc. test R-2258.

In addition Steeltex provides a rigid troweling surface which speeds its application and saves plaster. For better plaster construction see our catalog in Sweet's or write for Catalog D.S. 130 to Dept. AB, Pittsburgh Steel Products Company, Grant Building, Pittsburgh 30, Pennsylvania.

PITTSBURGH STEEL PRODUCTS COMPANY
A Subsidiary of Pittsburgh Steel Company
Pittsburgh, Pa.
It's Easy to Demonstrate a Niteair FAN!

You profit quicker . . . sell easier when your homes and buildings feature Niteair cooling. Prospects are looking more and more for those "built-in" extras that add so much comfort and convenience to a new home. Extras that often decide a sale quickly and easily. When a prospect is considering one of YOUR homes, here's the way to clinch the sale! Just flip the switch to demonstrate the marvelous cooling benefits of the LAU Niteair fan. When your prospects see and feel for themselves the wonderful cooling breezes circulating throughout the house in a matter of minutes, your sales opportunity will go up 100%! Each fan in the LAU line is outstandingly efficient at amazing, low cost and carries a Certified Rating.

**Niteair PANEL UNITS**

New design . . . outstanding performance makes the NEW Niteair Panel Units tops in cooling efficiency for homes, factories, stores and offices. Their marvelous cooling benefits are truly astounding in homes large and small. Available in a complete range of sizes (30", 36", 42", 48" blade size) with discharge capacities for every requirement. Ratings begin at 7600 C.F.M. and go up to 17,000 C.F.M. Make preparations to see and install a "Niteair" Attic Fan, now!

**Niteair RANCHER**

An outstanding new addition to the famous LAU Fan line. The "Rancher" is especially designed for homes of low-pitched roof construction. Highly efficient and gives wonderful cooling results. Quick . . . easy . . . economical to install and operate. Mounted horizontally to discharge upward and outward. A Complete Package Unit with superior mechanical features. Two sizes (30", 36" blade size) moving 6409 and 8500 C.F.M. respectively. Requires practically no maintenance or attention and will give a lifetime of comfort and relaxation.

Write Today — Dept. "B" — for complete information
Simplify Selling... with PC Glass Blocks

- When you make PC Glass Blocks a "must" in your building plans, you add a lot of sales appeal to the homes that you build. That means that such homes are more attractive to buyers... they take less effort to sell.

PC Glass Blocks are completely modern in appearance and function. They add to the beauty of houses of all sizes and architectural styles. As a fireplace, as shown here, PC Glass Blocks give the room a feeling of distinction and cheer. And in bathrooms, kitchens... at stairwells or around doorways, they admit plenty of daylight, yet assure privacy.

Since PC Glass Blocks are hollow, with a partial vacuum, or dead-air space inside, their insulating value is twice that of ordinary single-glazing. Thus, heating loss is greatly reduced; there is a sizable saving in heating and air-conditioning costs. Moreover, they're easily cleaned; prevent infiltration of dust and dirt; deaden outside noises; require no upkeep, no painting, no storm sash.

Why not simplify your selling job by making sure that PC Glass Blocks are included in your building plans? And for the full facts, fill in and return the coupon. There's no obligation.
See the difference... feel the difference

SKIL Belt Sander means fine, fast finishing on every sanding job!

Watch SKIL Belt Sander at work! It sands faster because it's more powerful... yet lighter, better balanced, easier to handle.

And inspect the sanded surface! You just can't beat the smooth look, the smooth feel of finishes produced by SKIL Belt Sander.

Call your SKIL Tool Distributor and make him prove these facts with a demonstration on your own jobs. Do it today!

SKIL Belt Sander plugs in anywhere. Saves you time and money sanding cabinets, shelving, etc. ... in the shop or on the job.

SKIL Belt Sander sands flat or contoured surfaces of all materials ... wood, metal, stone, tile, concrete and compositions.

SKILSAW, INC.
8035 Elston Ave., Chicago 30, Ill.
Factory Branches in Principal Cities.
In Canada: SKITOOLS LTD., 66 Portland St., Toronto, Ont.
American Builder, March 1949.

As Robert P. Gerholz says:

"Asphalt Shingles help houses stand apart—and yet fit together"

Community of spirit pays in Community Development

Again and again in modern community building, asphalt shingles are demonstrating their ability to spread charm, individuality, variety throughout an entire development.

Mr. Gerholz, president of Gerholz Community Homes, Inc., and past president of Natl. Assn. of Home Builders, puts it this way: "Asphalt shingles fit each house in an individual, personal way—and they help all houses fit together, in harmony and to the advantage of all."

Color, of course, is one of asphalt's big features. Fire resistance, with its resulting insurance savings, is important, too. Add to these asphalt's low relative cost, its adaptability, its neat modern appearance, the simplicity of proper application, its long, dependable service life and you have reasons to spare for its popularity.

NEWEST GERHOLZ PROJECT ZOOMS WITH ON-SITE BUILDING OF TWENTY-FIVE HOUSES AT A TIME

The experience of 26 years in large home and neighborhood construction is focused in Matt Park of Flint, Mich., latest community development of Robert P. Gerholz and Gerholz Community Homes, Inc. Air view is of Bassett Park, recently completed project handled by Gerholz-Healy Co. All of Bassett Park's 601 homes are roofed with asphalt shingles—as will be all of Matt Park's 250 rambling colonials. Half completed, Matt Park benefits from efficiencies proved in other projects. Construction proceeds year round with 25 houses going up simultaneously. Architect for both developments is Charles Noble of Ann Arbor and Detroit.

ASPHALT SHINGLES
CONSTRUCTION'S BIGGEST DOLLAR'S WORTH

SPONSORED BY 28 LEADING MANUFACTURERS OF ASPHALT SHINGLES... SIDINGS... ROLL AND BUILT-UP ROOFINGS
WHERE THERE'S A WALL
THERE'S A WAY TO
GREATER PROFITS
WITH
PITTSBURGH INTERLOCK
PLASTIC WALL TILE

EVERY HOME A PROSPECT!

Here's a wall tile that can be installed anywhere . . . over old walls, new walls . . . on any straight, structurally sound wall or ceiling area. Perfect for modernizing. It locks on and stays beautiful!

EASY TO INSTALL! Installation is 25% faster because of the exclusive interlocking feature. Your net profit is greater any way you figure it with the tile that gives you so many extras:

★ Self-aligning
★ No grouting
★ No clean-up
★ 15 rich colors
★ Solid plastic
★ Low selling cost
★ Higher net profit

Mail this coupon TODAY!

Jones & Brown, Inc.
439 Sixth Avenue
Pittsburgh 19, Pa.

Yes, I want to make bigger NET profits with PITTSBURGH INTERLOCK. Send me full details.

Name
Address
City State
Introducing

ES-nail
ELASTIC STOP NUT CORPORATION OF AMERICA

THE FIRST POSITIVE "LOCKING" NAIL FOR ATTACHING WOOD OR ASBESTOS SHINGLES DIRECTLY TO GYPSUM OR INSULATION SHEATHING

A major advance . . . of vital importance to EVERY architect, contractor and builder—

ES-nails—the first new type of shingle fastener—are designed to cut construction costs by providing a simple means of attaching wood or asbestos shingles directly to gypsum or insulation sheathing.

They are as easy to work as ordinary shingle nails—no special tools are required—a regular shingling hatchet or carpenter’s hammer are all that are needed.

And they can be driven at any convenient point . . . no need to locate studs.

ES-nails enable the builder to take full advantage of the inherent economies and valuable construction characteristics of non-wood sheathing: lower unit cost; faster applications; less waste; weather tightness. Substantial savings result.

HOW ES-nails WORK

The illustration (above) shows how ES-nails “lock” shingles to gypsum or insulation sheathing. The fastener has two legs, one enclosing the other, hinged near the end and forming a triangular loop at the head. When it is hammered down into the material in ordinary fashion, the last blow of the hammer flattens the head, causing the clinching action. The shingle and the sheathing are thus fastened securely together.

Since the clinch is automatic, no particular skill or unusual care is required on the part of workmen to assure the positive attachment of shingles.

Investigate the many cost-saving construction advantages offered by ES-nails—today’s fast, low-cost means of attaching shingles to gypsum or insulation sheathing. For prices, sizes service or other pertinent information, call or write: Elastic Stop Nut Corporation of America, 2330 Vauxhall Road, Union, New Jersey.
A TYPICAL COST-SAVING EXAMPLE

ES-nails used to attach asbestos shingles to insulation sheathing at Spring Valley, N.Y.

Maximum cost-savings are possible through ES-nail construction. While these figures only apply to attaching asbestos shingles to insulation sheathing, similar cost-savings can be enjoyed with wood shingles or gypsum, asbestos on gypsum, or any other combination. The following figures will serve as a basis for comparison with your own cost experience.

Costs per 1,000 Square Feet

WOOD SHEATHED CONSTRUCTION

Material:
- 1" x 8" sheathing - 1,333 sq. ft. (incl. 33¼% waste) @ $100/M. = $133.33
- Asbestos Shingles - 10 squares @ $9.50/sq. = 95.00
- Sheathing nails - 31 lbs. 8d. com. @ $2.50/lb. = 3.72
- Shingles nails - 3 lbs. 3d. galv. @ 15¢/lb. (for head nailing) = .45
- 15 lb. Building Paper = .75

Labor:
- To sheath - 17½ hrs. @ $7.50/hr. = $133.75
- To shingle - 20 hrs. @ $2.50/hr. = 50.00

Total $233.73

THE ES-nail WAY WITH GYPSUM OR INSULATION SHEATHING

Material:
- 1,050 sq. ft. sheathing (incl. 5% waste) 1/4" Gypsum @ $47/M and 25/32" @ $92/M = $49.55
- Asbestos Shingles @ $9.50/sq. = 95.00
- Sheathing nails - 30 lbs. 1½" galv. = 4.50
- Face nails - 1¼" ES-nails (S-1499-11) @ 75¢ per sq. or 1¼" ES-nails (S-1499-13) @ $1.13 per sq. = 7.50
- Head nails - 1¼" ES-nails (S-1501-11) @ 40¢ per sq. or 1½" ES-nails (S-1501-14) @ 50¢ per sq. = 4.00
- 15 lb. Building Paper = 7.50

Labor:
- To sheath - 11 hrs. @ $2.50/hr. = $27.50
- To shingle - 20 hrs. @ $2.50/hr. = 50.00

Total $245.55

Savings per 1,000 sq. ft.: $88.20 $36.35

*No allowance taken for insulation value of 25/32" sheathing.

ES-nails are accepted on F.H.A. insured houses.

ES-nail

ELASTIC
STOP NUT
CORPORATION
OF AMERICA

THE NUT WITH VISIBLE EVIDENCE OF LOCKING SECURITY
The Truscon Series 138
DOUBLE-HUNG STEEL WINDOW

You bet it's the best buy in the window field! These Truscon Steel Windows help you sell your homes and buildings, because window beauty combined with the ultimate in operating simplicity plays an important part in clinching house sales! You'll find, too, that you have universal acceptance because Truscon Double-Hung Steel Windows are structurally-correct!

And, of equal importance, you'll like the downright economy of these famous windows—not only is their initial cost low, but because they are pre-hung, pre-fit, pre-weatherstripped and pre-adjusted, their installation cost is also amazingly low! They won't warp, rot, stick or shrink either before or after installation. And, in the most popular types and sizes—you can order direct from our local stocks.

Weights and cords are not used. Operation is controlled by motor-type spring balances equipped with tapes of Enduro stainless steel. Each window is completely factory weatherstripped in stainless steel. Screens and storm sash of the simplest and most economical type are available. Shade, drapery, curtain or venetian blind fixtures, of standard types are easily attached to the interior side, in holes provided in all units.

New Literature! Send for new catalog complete with installation details and specifications on Truscon Steel Windows for every type of residential use.

TRUSCON STEEL COMPANY
YOUNGSTOWN 1, OHIO
Subsidiary of Republic Steel Corporation
The drop in prices registered in official government data is microscopic as yet, but there are signs of a continuing decrease which may bring prices down to a level substantially below the peaks reached last year. The principal drop has been in food prices. Farm products which cost $2.03 in January of last year now cost $1.70. The price of wheat which was $3.10 per bushel is now $2.24.

Evidence of sliding prices and the return to competition are lower prices in retail stores of food, clothing and furniture and appliances and the increasing availability of automobiles. Lumber has dropped 15 per cent to 20 per cent from its all-time high. The index (1939—100) reached 341.4 last August.

A general break in prices such as the one that occurred in 1920 could have an important effect in bringing down building costs. As the chart indicates, prices after World War I came down sharply and stayed at a constant level for ten years. They resumed that level after a drop from 1930 to 1936. However, prices never went as low as they had been in prewar 1915. There was a steady rise between 1940 and 1948.

Just as the conditions brought about by World War I—an increased supply of money and higher labor rates prevented prices from ever again reaching the prewar level—just so it can be expected that prices will not drop to the 1939 level in the future. About as large a drop as can be expected is an index of 150 to 175 from the present level of 200 plus.

Manufacturers of building materials have looked with apprehension on the drop in housing starts during the last five months of 1948. In December, for example, the Bureau of Labor Statistics reported 36,000 dwelling units started as compared with 58,900 in December of 1947, a decrease of 5 per cent. As with other commodities, the first thing that suggests itself to a manufacturer faced with a drop in volume is to cut prices. Since the control of labor rates is increasingly rigid this is difficult, if not impossible. As long as the average weekly earnings in manufacturing are $54.50 per week it cannot be expected that the price of manufactured products will drop substantially. Neither can construction costs decrease as long as the average rate for skilled construction labor is $2.34 an hour.

Declining demand has caused some manufacturers to reduce production. An example is the asphalt roofing industry where the current level of employment is about 40 per cent below last November. A spokesman for the industry states that "Based on present manufacturing costs with a current reduced volume of production, prices should go up." It was also predicted that when the contractors reach their peak business next spring and summer there will not be enough material to go around. It remains to be seen whether this situation develops.

Most manufacturers of building materials have increased their plant capacity substantially in the last three years. Maintenance of employment and profits requires that substantially greater quantities of materials be produced and distributed.

Builders and manufacturers have the same problem when confronted with declining demand. After finding ways and means of reducing costs, they examing and improve their sales methods, restyle their product for possibly a different market and see what can be done about more favorable installment terms.

The maintenance of residential volume in the neighborhood of 1,000,000 dwelling units a year will require intensive sales effort and a practical demonstration that a new house with payments of $60 per month is far superior to a rental unit frozen at $35 per month.

The confusion of government over the housing situation is evidenced by the fact that officials have recently discovered four million "hidden" dwellings. These are units that have been remodeled since 1940 to serve more families. It served to explain why demand for housing this fall and winter fell off.
This charm will work for you... in any setting
BLACK ORNAMENTAL HARDWARE
by STANLEY

Wherever it's used today, this Early American inspired hardware charms home owners and prospects. For the beauty of it is that Stanley Black Ornamental Hardware adds distinction to any style of architecture—Colonial, Early American, Modern or Spanish.

A "natural" for natural wood finishes, it's just as attractive with painted surfaces. And mighty practical anywhere. Since there's no need for the precise, time-taking mortising required for conventional hardware, Stanley Black Ornamental Hardware is far easier and quicker to install.

In summer camps, lodges, apartments, executive offices, Stanley Black Ornamental Hardware solves the hardware problem beautifully. Recommend it! And use it in the homes you build—to give sales a lift. The Stanley Works, New Britain, Conn.

Get a supply of these idea books showing the many ways Stanley Black Ornamental Hardware can be used all over the house and in all types of interiors.
ELLENDER—The Louisiana Senator wants 1,050,000 public housing units in the next seven years. That is 150,000 a year. With the building industry working at capacity to provide 935,000 new units in 1948, Ellender would take nearly 16 per cent of all materials and mechanics for government housing.

FALLACY—The prime fallacy of all arguments for public housing is that no bill can provide more houses than are currently being built. All that could happen is that government would slow builders down.

RAYMOND FOLEY—Undoubtedly without realizing the full implication of his statement, Foley recently told Congress that the nation needs between 17 and 18 million new dwelling units within the next ten years. The figures, of course, as Mr. Foley well knows, are no more authentic than if he had said 50 million or two million. Anyone can prove a need for any total arbitrarily selected.

THE POINT—The point, however, is that once a public housing bill is passed, the housing czar, whoever he happens to be, can demand and probably easily get increasing annual quotas of public housing from Congress. So, if Foley or whoever happens to be the housing czar, made a need of 1,700,000 new units a year stick, there is no reason to believe that a politically conscious Congress might not look at the approximate 1,000,000 units the industry is geared to produce, and say that the difference between capacity and need, in this case about 700,000, should be the annual public housing quota. That would leave private builders with a maximum of 300,000 a year they could build, provided they could find anyone with enough money left after taxes to buy them.

M. DE JOUVENAL—He’s an internationally respected contemporary historian, economist and political scientist. He recently wrote an article for The Foundation for Economic Education, Inc., entitled, “No Vacancies.” It’s a short account of the tragedy of rent control in France.

90 CENTS—That is the average monthly rental for a worker in Paris. The same 90 cents also will buy six packages of the cheapest cigarettes available. It equals 2.7 per cent of the minimum individual income demand by the labor unions, and 1.2 per cent of the average monthly income of a six-member family.

SOUNDS GOOD—But there are no vacant lodgings, practically everybody is doubled or tripled, waiting for the death of an entire neighboring family as an outside chance to undouble or untriple. Wage earners have no chance, since in any case it costs from $500 to $1,500 to buy one’s way into an apartment.

ALSO—Of the 84,000 buildings for habitation in Paris, 27.2 per cent were built before 1850; 56.9 per cent were built before 1880; 90 per cent were built before World War I. Sixteen thousand are in such a state of disrepair that they should be razed. None are satisfactory living quarters.

WORSE STILL—82 per cent of all Parisians have no bath or shower; more than half must leave their lodgings to find a lavatory; and 20 per cent have no running water.

LANDLORD?—Not in Paris. It’s landslave. Since 1914 rents have multiplied 6.8 times, taxes 13.2 times, repairs 120 to 150 times.

ROAD TO RUIN—De Jouvenal says the whole thing goes to prove that rent control is self-perpetuating and culminates in both the physical ruin of houses and the legal dispossession of owners.
Prominent architect selects KIMSUL® for low cost, high insulating efficiency

Designers and builders of every type of home across the country are discovering that it pays more to insulate with KIMSUL. For KIMSUL offers an exceptional combination of low cost and high insulating efficiency (0.27).

KIMSUL is the only many-layer stitched blanket insulation, and provides an entirely different kind of comfort. "KIMSUL comfort" means uniform temperatures throughout every room in the house! No thick spots — no thin spots where heat can leak out. KIMSUL comes in light, handy compressed rolls, so it's easier and more profitable to install. No need for skilled workmen or expensive machinery. And the fire-resistant PYROGARD* cover is an exclusive feature of this fine insulation.

For further information and free technical literature, see your KIMSUL dealer. Or simply write to:

KIMBERLY-CLARK CORPORATION
KIMSUL Division • Neenah, Wisconsin

December 20, 1943
Kimberly-Clark Corporation
Neenah, Wisconsin

Gentlemen:

Our experience with Kimsul insulation during the past few years has been most satisfactory. We found it particularly suitable for the Buckner house, a very special project of ours in Carmel, California.

In addition to fulfilling the wishes of our client, we wanted to prove that low-cost houses can be erected in a short period of time and still be attractively designed. We therefore selected Kimsul for its low cost and high insulating efficiency. As usual, it proved to be exceptionally easy to install, and helped to keep construction moving along rapidly.

As you can see, the Buckner house has many unusual features which have created considerable interest all over the country. Naturally, we are very proud of it and hope to build many more houses just as interesting and dramatic in design. And, of course, we'll continue to use Kimsul insulation.

Very truly yours

Jon Konigshofer
Designer and Builder

Kimberly-Clark Corporation
Neenah, Wisconsin

A FAST-MOVING MIXER...


Quickly spotted and towed, this half-bag mixer is a cost-cutting combination of strength, lightness and efficiency. Other Ransome Blue Brute Mixers in capacities up to 126 cu. ft.

PLENTY OF RESERVE POWER...


Now! a Contractor's Pump by Worthington, the world's largest pump makers, with fast, dependable pickup that saves time and money. Rust- and abrasion-resistant, with built-in self-priming.

FOUR FAST WORKERS...

Though tough and powerful, Blue Brute Air Tools are light and compact, with the easy handling that means more satisfied workers . . . more work done . . . more profit for you.

AIR AT SHORT NOTICE...

A light-weight, handy compressor that can get around fast! Powers light hand-held Rock Drill, Paving Breaker or equivalent air tools through its easy-breathing Feather* Valves — with unfailing dependability and economy.


60' Contractor's Portable Compressor. Other Blue Brute Compressors up to 500' capacity.

Paving Breaker, WB-50
Rock Drill, WJ-45
Clay Digger, W-19
Backfill Tamper, W-8

WORTHINGTON

Worthington Pump and Machinery Corporation, Construction Equipment Department, Harrison, N.J. Distributors in all principal cities.

IF IT'S A CONSTRUCTION JOB, IT'S A BLUE BRUTE JOB
You can't avoid the fact that home buyers want the most modern type of kitchen equipment—and that includes Electric Ranges. Proof is found in the actual sales figures. Another million American families switched to Electric Cooking last year. Conservative estimates indicate that the same thing will happen again this year.

To you, this means just one thing. To build houses that are modern today and will stay modern for years to come, you must include wiring for an Electric Range, leading to a range outlet in the kitchen. The time to do this economically and efficiently is during construction. An Electric Range, like electricity itself, is now a "must" in every modern house!
EDITORS' Round Table

WE'RE PROUD of our February issue. It not only was the largest in the magazine's history, but it was one of the best balanced and informative. We thought it was when we designed and wrote it, and a mound of letters from readers confirms that judgment.

WE RECOMMEND another careful reading of the feature articles about the management policies of the builders whose stories are told. Every one of them contains ideas that a builder of any size can use.

THE SECTION entitled "Building Products on Review" has all of the value of a catalog of new building products, and many builders and dealers use it as a reference volume throughout the year.

THE ABILITY to present this complete catalog of products without in any way compromising the character of the issue as a magazine in every sense of the word is the particular skill of our Managing Editor, Lyn Arent. It takes real layout skill to do a job like the February issue. And please note that every product description is written to completely fill every line of type devoted to it. Lyn insisted on that, and the editors sweated it through. He says it makes a neater looking book, and all of us agree with him. Hope you notice it.

SOME MONTHS AGO we thought that 1949 would be a good year for apartment buildings, and accordingly featured a number of good ones in this issue. No doubt there are many just as good, if not better. We'd like to know about them.

FOR APRIL the staff is planning another banner issue. It is the annual spring building number, and it will be filled with good, tried-plus, sound operation methods, and a new style of presentation for workable short-cuts and job economies. The new style is designed to simplify selection by the reader.

A G.I. CARPENTER trainee recently registered some complaints against the manner in which his builder employer was handling him. We published the complaints.

HERBERT MALLIN, a carpenter in Galena, Ill., writes that ap-

(Continued to page 56)

Like a duck takes to water...

Customers do take to Electric Water Heaters like a duck takes to water. There's one sure way to have them satisfied. That is—install in the homes you build the kind of water heaters that will-satisfy your customers both now and years from now—Electric Water Heaters.

How to reduce construction costs and add customer features

Electric Water Heaters can save you money on construction costs. There's no flue or vent. Installation can be made anywhere—in the kitchen, in the bathroom, or the utility room— even in a closet. This keeps hot water lines short, cuts piping cost. Customers like Electric Water Heaters 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 Heater Section, National Electrical Manufacturers Association

155 East 44th Street, New York 17, N. Y.

It's easy to install an electric WATER HEATER!... in a house wired for an Electric Range!
If you want

LONG LIFE get—

BERMICO®
SEWER PIPE

YOU GET DURABILITY. BERMICO Sewer Pipe stays tight, leak-proof, root-proof. It's corrosion-resistant, built for a life-time of trouble-free service.

YOU GET RUGGEDNESS. BERMICO's strong walls resist breakage, on the truck and on the job. Uniform machining of wall thickness, joints, and fittings, length and bore—withstanding sudden temperature changes and soil settlements.

YOU GET FASTER LAYING. One-two-three quick hammer blows—that's all it takes to make a tight joint with BERMICO Sewer Pipe. No joining compound necessary.

FOR HOUSE-TO-SEWER OR SEPTIC TANK Specify BERMICO. Made in a full range of sizes, connections, bends, reducers, adaptors, etc. Nationally advertised. Use BERMICO Perforated pipe for drainage purposes. For further information write Brown Company, Dept. A-13 500 Fifth Ave., New York, N.Y.

EASY TO INSTALL  EASY TO JOIN  EASY TO HANDLE

8-foot lengths reduce number of joints to be made.
Root-proof, machine tapered joints require no packing.
2/3rd's lighter than other types of sewer pipe.

BERMICO meets with an ample margin all requirements of Commercial Standards C8 116-44 as issued by National Bureau of Standards, U.S. Department of Commerce.

Bermyco—A PRODUCT OF BROWN COMPANY

EDITORS' Round Table
(Continued from page 55)

parently the complaining G.I. is a nice young fellow who is willing to learn. He points out, though, that the G.I. apprentice doesn't realize that all carpenters have had to go through about the same kind of program. "When I was learning," says Mallin, "I spent a great deal of time doing what is known as labor work."

"IT IS TRUE," says Mallin, "that the scale for laborers is greater than that for apprentice carpenters, but the G.I. must realize that while he is learning his trade, he is taking the time of a regular carpenter as well as his own to show him how things are done." He has no valid complaint, says Mallin, when he is called upon to do labor work when that is the kind of work that has to be done in the interest of getting houses built.

THE GALESBURG CARPENTER points out that after all, the idea is to build houses to fulfill the demand of the public, and to do this as well and as cheaply as possible, thus satisfying the public as well as showing a profit for the contractor. This apprentice, points out Mallin, has the attitude that houses are built so that apprentices can learn how to do carpenter work, and not to fulfill the demand for houses, and make a profit for the contractor. "G.I.'s," concludes Mallin, "deserve every consideration, but they are going to have to learn to adjust themselves to different situations and they also might be working directly or indirectly for another G.I., who also deserves that same consideration. We hope that time will make the necessary adjustments and solve these problems. Your idea of training in school is one way to help."

JOHN BONFORTE, a G.I. who settled in Colorado Springs, Colo., at the end of the war, and started in business for himself as a home builder, builds excellent houses, and sells them at fair prices as fast as he can complete them.

HE BELIEVES in what he is doing, and so do several hundred satisfied and comfortably housed customers. John uses the local newspaper to insert advertisements, not to draw prospects to his development, but to tell the facts (Continued to page 58)
It’s New! It’s Neat!

IT’S PERFECT FOR THE MODERN HOME!

THE RICHMOND RICHLEDGE

MODERN HOMES demand modern plumbing. Richmond’s compact new Richledge—designed with this in mind—has all the big lavatory features yet it’s only 18" x 15" overall! This low-priced wall-hung unit fits into the most modern bathroom or powder room—no matter how small the space.

... The RICHLEDGE will help you get those modernization jobs, as well as new installations, started now. Combining the highest quality with the lowest possible price—it is a timely addition to the Richmond line of fine vitreous china.

Richmond Radiator Company
19 East 47th Street, New York 17, N.Y.

See your wholesaler or MAIL COUPON TODAY

Richmond Radiator Company
19 East 47th Street, New York 17, N.Y.

Please send me complete information on the Richmond vitreous china line—including the new Richledge. No obligation, of course.

None
Company
Address
EVERYONE PROFITS
WITH
Duo-Laps
DOUBLE-COURSE
RED CEDAR
STAINED SHINGLES

Mr. and Mrs. Home Owner

Duo-Laps give homes the beauty and effect of expensive, wide siding at low cost. These luxurious, deep-horizontal shadows and wider exposures bring out the beauty of modern building design, give new life to older homes. Nature’s prize insulator, Red Cedar, keeps homes cool in summer, warm in winter. Choice of eight colors.

The men who specify and apply Duo-Laps...

Duo-Laps cover more area with fewer shingles, fewer nails, less labor. Applied easily over spaced or solid sheathing for new construction... over any kind of outside wall for remodeling. Can be laid with full 12” or 14” exposure. Duo-Laps come to you pre-stained, eliminate your painting costs. Butted, squared and tapered perfectly for easy application. Immediate delivery.

for Double-Beauty Insulation and Economy... Specify DUO-LAPS
Write for new folder in beautiful natural colors and name of your nearest Duo-Lap dealer.

American
STAINED SHINGLE CO.
GENERAL OFFICES COR. SPRUCE ST. AND DENNISON AVE.
COLUMBUS 8, OHIO

American Builder, March 1949,

EDITORS’
Round Table
(Continued from page 56)

about public housing to the readers of the newspapers.

RECENTLY he threw the lie at the public housers by publishing the record of the home building industry since the close of the war. He sent us a copy of the ad, which charges that public housing will be the first major step to legislate communism into our nation. He attaches a coupon to the ad, inviting readers to fill it out and send it and the ad to Senator Ed Johnson of Colorado. One ad of the kind John Bonforte uses in his local paper will do more good to preserve freedom in this country than 10,000 speeches at builders’ and dealers’ meetings.

NORMAN A. MAXWELL, a long time subscriber to American Builder, and for years a home builder in Covington, Tenn., told one of our staff a few weeks ago that he remembers when there were only two concrete mixers in his town, and no power tools. He owned one of the mixers and the city owned the other. Now, there are at least eight mixers and scores of electrically operated tools and machines. He adds that power machinery and greater skill are producing better houses today than when he started in business.

IN THE SAME WEEK, we were told by a wrathful builder that some years ago he built and sold houses better than those going at $12,500 for $600. The $600 is not a misprint. That’s what he said. Then he stigmatized the entire industry as a heartless gang of grafters on the ground that since the wages of his crews have quadrupled, he should be able to sell his $600 house of years ago for $2,400. It would be wonderful if it were that simple, but when you find a reader who can think no further than that, there is no use trying to argue with him.

OUR WESTERN EDITOR deserves a special salute this month. He lives in Los Angeles, but spent most of January in the Northwest, chad in a spring coat and climbing around building projects with outside temperatures as low as minus ten. No complaint, but he did let us know that he thought our timing for the trip was pretty sour.
Builders:
when you specify
ELJER
Plumbing Fixtures, your clients enjoy...

LONG-LIFE STYLING
EXTRA CONVENIENCES
OUTSTANDING QUALITY
FAMILY OF DESIGN
HARMONIZING COLORS
RENEWABLE BRASS FITTINGS

It pays you, it pays us—

because we specialize in Plumbing Fixtures and Brass

AS ADVERTISED IN THE POST

Eljer advertising in consumer magazines like The Saturday Evening Post will reach 115,000,000 this year. Everywhere, people know Eljer. You can be sure that your clients appreciate the long-life styling, superb quality and extra conveniences of Eljer's Fine Plumbing Fixtures, trimmed with Eljer's Quality Brass.
ELJER EQUIPPED HOMES DO SELL FASTER BECAUSE

ELJER BATHROOMS ARE first FOR CONVENIENCE
ELJER BATHROOMS ARE first FOR CONVENIENCE

Enjoy the convenience of an Eljer Legation Bath . . . with its distinctive end-seat that is comfortable for foot bathing or a sitting shower. The low, wide front rim-seat makes it easy to step in or out and is ideal for bathing children . . . and the entire surface is within easy reach for cleaning.

Eljer is first for quality, too . . . bathtubs and kitchen sinks have a rugged, rigid, cast-iron base that makes possible a smooth, extra-thick coating of glass-like enamel . . . easy to keep sparkling clean and new-looking with the swish of a damp cloth. And, Eljer Vitreous China Lavatories and Closet Combinations just naturally resist stains and the effects of all ordinary acids . . . because they are real china.

Everyone in the house appreciates Eljer's Chrome-Plated Faucets that turn off or on with a touch of the finger. Exclusive construction features assure long, trouble-free service, while all wearing parts are easily renewable.

Your Plumbing Contractor or Builder will help you select a combination of Eljer Fixtures . . . in white or beautiful pastel shades . . . for bathroom, powder-room, laundry or kitchen. For free booklet on bathroom ideas, write Eljer Co., Box 192, Ford City, Pennsylvania.

All Eljer Enamelled Cast-Iron Fixtures have a bed of solid cast iron. An extra-thick coat of vitreous enamel is fused to this base by extremely high even temperatures. The resulting finish is velvet-smooth . . . and will last a lifetime with ordinary care.

MANUFACTURERS OF FINE PLUMBING FIXTURES SINCE 1904

ELJER

Factories at Ford City, Pa., Salem and Marysville, Ohio and Los Angeles
There are over Ten Million Eljer Fixtures in Use

more and more people are asking for the Extra Features available

Only in Eljer's Fine Line of Plumbing Fixtures and Brass Trim
IN 1949, 115,000,000 ADVERTISEMENTS
WILL HELP YOU SELL ELJER

IN 1948, 75,000,000

IN 1947, 62,000,000

IN 1946, 52,000,000

It pays you, it pays us - because we specialize in Plumbing Fixtures and Brass
NAHB Elects Rodney M. Lockwood 1949 President

1949 Convention hits new high in attendance and interest in exhibits, business sessions and problems

The 1949 NAHB Convention and Exposition, conducted in Chicago February 20 through 24, constituted a full dress demonstration of how this organization is growing steadily in membership, strength and prestige. A new all-time high in registration, plus unprecedented interest and attendance at all business and clinic sessions, taxed every facility of the Stevens Hotel. At many of the sessions there was standing room only.

A comprehensive program permitting maximum participation by those in attendance has done much to clarify the most important problems facing the industry. Outstanding interest was centered on five general session discussion panels and six technical clinics.

The huge array of exhibits by manufacturers of building materials and equipment officially opened Sunday afternoon at 1 o'clock, with 141 firms represented in the Exposition hall and on the mezzanine of the Stevens. From then on, every hour that the exhibits were open booths and aisles were crowded with curious builders seeking information about the products.

The first general session was conducted in the Grand Ballroom Monday afternoon with President Milton J. Brock presiding. A message of welcome was extended by Nathan Manilow, president of the Chicago Metropolitan Home Builders Association. Past president Edward R. Carr delivered the keynote address. He urged the 3,000 builders crowded into the room to work vigorously for new technical advances in construction and to spend more time and effort in educating the public with the truth about housing.

Convention committee chairman W. Hamilton Crawford presented a brief, dramatized summary of the current trends toward socialism through the efforts of bureaucratic elements in government.

A new style of reporting was introduced by Executive Vice President Frank W. Cortright when a review of the year's work by NAHB's national staff was presented as a drama "Builders of America" by professional performers of Ira Mosher Associates, Inc., (Continued to page 64)

RODNEY M. LOCKWOOD
1949 President

Roster of Capable Men Elected to Run Association for Coming Year

One of the highlights of every NAHB convention is the election of officers, which always inspires peak interest and no end of prognostication. This year's meeting was no exception. The nominating committee worked hard and long to select its final slate of leaders for 1949. The men elected are all well-known in the industry, and throughout the nation, and are of such calibre that members of NAHB can have perfect confidence in their ability to carry on all the fine work of the Association.

Rodney M. Lockwood, of Detroit, Mich., the 1949 president, who succeeds Milton J. Brock, has been in the forefront of Association activity for several years, and is best known for his outstanding work in behalf of veterans' housing since the end of the war. He was chairman of the NAHB special committee on building materials and regulations, which acted in an advisory capacity to the housing expediter. Lockwood developed a series of comprehensive reports which resulted in the
correction of many government regulations and practices which were impeding construction. More than two-thirds of the recommendations of Mr. Lockwood's committee were ultimately accepted by the government and brought relief in the production, distribution and supply of building materials.

Lockwood entered the building business in Detroit in 1938, and since 1940 has been a recognized leader in his city's housing affairs. He worked for the stimulation of war and veterans' housing. He was chairman of the legislative committee in 1948.

THOMAS P. COOGAN
1949 First Vice President

In addition to being an active operative builder, Lockwood is general counsel of the Detroit Association. He has also been engaged in general law practice since 1933, when he was graduated with highest honors from the Detroit College of Law.

Thomas P. Coogan, NAHB secretary in 1948, had more than 20 years' home building experience in the low-cost field. A resident of Miami, he is a past president of the Florida Home Builders Association, and was for three years an NAHB national director.

Mr. Coogan is a World War I veteran, serving as an observer and a bomber-gunner in the Naval air force. He studied engineering at Massachusetts Institute of Technology and is a member of the Town Planning Board of Surfside, Fla. His predecessor in the vice presidential post was the new NAHB president, Rodney M. Lockwood.

W. P. "Bill" Atkinson of Oklahoma City is NAHB's first second vice president, this office having been added to the national organization on the subject, W. P. Atkinson, a native Texan and former newspaperman, is a graduate of Texas Christian University, Fort Worth. He

(Continued from page 63) assisted by members of the NAHB Washington staff.

Tuesday forenoon six clinic discussion panels were conducted concurrently in rooms located in both the Stevens and Congress hotels. Clinic No. 1 dealt with FHA and VA questions and answers with past president Joseph E. Merrion presiding. Personnel on this clinic included Franklin D. Richards, Commissioner of FHA, and his assistant, Curt Mack.

Clinic No. 2, "Building Methods That Cut Costs", produced numerous ideas that will be helpful to the many builders in attendance. Clarke Daniel, NAHB Director of Washington, D. C., was discussion leader.

Clinic No. 3, "Prefabrication for Better Values and Increased Sales", with W. Hamilton Crawford as discussion leader, included prominent prefabricators as personnel, and clarified many questions in the minds of builders regarding this type of construction.

The fourth clinic titled "Heating—Air-Panel Radiation" was another which proved of outstanding interest to the builders. It was led by Kimball Hill, Chicago.

A builders' round table "Economy Houses I Have Built", led by Nicholas Molnar, included H. Leland Smith of FHA and Carl Lams, of the NAHB staff, as leaders. Many interesting reports were made to the assembly.

"Faster Sales Through Better Design" with John N. Highland, Jr., architect, leading, resulted in the development of some good sound thinking dealing with the subject.

All of the clinics drew overflow crowds, and were repeated on Wednesday forenoon.

With Rodney Lockwood as chairman, the Tuesday afternoon general session featured addresses by Roy Wenzlick, real estate analyst of St. Louis; Raymond M. Foley, administrator of HHFA, and Franklin D. Richards, FHA Commissioner.

HHFA Administrator Foley urged the home builders to continue to emphasize low-cost housing and to work with the government rather than at odds with Washington in working out the nation's housing problems.

Tuesday's afternoon session was concluded with a nine-man panel on "Meeting Today's Mortgage Finance Problems", with National Secretary Thomas P. Coogan as moderator.

Tuesday evening a panel discussed "Land Planning for Permanence" with David D. Bohannon as moderator.

After a lively and interesting discussion on the subject, W. P. Atkinson, chairman of the NAHB's Neighborhood Development Contest, issued awards to the winners of the recent nationwide competition.

Wednesday forenoon was filled with repetition of the clinic program for Tuesday. The afternoon general session featured two interesting panel discussions—"Building a Better House at Lower Cost" moderated by Fritz Burns, and "Selling Your Houses in 1949" with W. P. "Bill" Atkinson as moderator. Both sessions were crowded and proved highly enlightening to those present.

Thursday forenoon President-elect Rodney M. Lockwood highlighted the program with the 1949 NAHB policy statement. He was preceded by Perry Brown, national commander of the American Legion, who spoke on the national housing program from the viewpoint of the veteran.

The fifth panel, "Reaching the Mass Market through the Economy House," discussed in detail what is being done with the low cost house—planning methods, materials and problems. Nicholas Molnar, NAHB treasurer, was moderator. The last of four Ira Moshier dramatizations concluded the program.
NATHAN MANILOW  
1949 Treasurer

FRANK W. CORTRIGHT  
Executive Vice President

started a construction business in 1939, after three years as chairman of the Department of Journalism and public relations director of the Oklahoma City University.

He has developed an entirely separate town, "Midwest City," and, with 17 other Oklahoma City builders, is engaged in the development of another large tract, 200 homes of which are already under construction.

A record of 27 years in low-cost housing lies behind Nicholas Molnar, 1948 NAHB treasurer. He is a past resident of the Home Builders Association of Greater Cleveland and was, in 1947, treasurer of the Home Builders Association of Ohio.

Mr. Molnar is a graduate of the Royal Hungarian University of Budapest. An active participant in civic affairs in Cleveland, he has been executive secretary of the City Planning Commission and Board of Zoning Appeals. He succeeds Thomas P. Coogan in the office of NAHB secretary.

Nathan Manilow, 1949 treasurer of NAHB, became actively engaged in the building industry more than 20 years ago. His college degree is in law, but shortly after graduation he turned to building and found this business more fascinating. Despite the fact that his organization is responsible for the construction of more than 4,000 homes and $20,000,000 worth of other types of construction, Manilow has always found time to engage actively in Association affairs. He has served as chairman of the finance committee, then as treasurer of the Chicago Metropolitan Home Builders Association, and for the past year has served as president of that organization, the largest local chapter in the nation. In addition to this he has been a director of NAHB, and has also served on the National's emergency committee. Mayor Kennelly of Chicago selected Manilow to serve as a member of his Chicago Committee for Housing Action.

Frank W. Cortright, executive vice president of the National Association of Home Builders, came to Washington immediately after Pearl Harbor. While awaiting a commission in the Army Air Corps, he accepted a temporary position as secretary of the Home Builders Institute. As the need became apparent for a national approach to the immense problems of constructing a million homes for immigrant war workers, Mr. Cortright remained as executive officer and has played an important part in creating and developing to its present stature the National Association of Home Builders.

Born in Beverly, New Jersey, he attended the Farnum Preparatory School, Lafayette College, and the Wharton School of Finance at the University of Pennsylvania.

He served in the Field Artillery in World War I. He established and operated a large real estate business under his own name in Philadelphia. For 15 years prior to coming to Washington his firm operated in the capacity of real estate brokerage, land development, appraisals, mortgage finance and home building.

At the time Mr. Cortright came to Washington he was vice president of the Philadelphia Real Estate Board in charge of the suburban areas, and was also vice president of the Main Line Board of Realtors.

He is a Realtor, member of the National Press Club, Philadelphia Photographic Society, National Aeronautic Association, American Legion, Thirty-Second degree Mason, Lafayette Alumni Association, Washington Aero Club, Phi Kappa Psi Fraternity, and American Trade Association Executives.

First Registrant at Meeting Greeted By Reception Committee Chairman

First person to register for the 1949 NAHB Convention and Exhibition after the desk opened Saturday morning, February 19, at 9:00 a.m., was Charles B. Neal, right, vice president of the Home Builders Association of Greater Kansas City. Newton C. Farr, of Chicago, chairman of the reception committee, and Myrtle Fiedler of Convention and Exposition Director Van Auken's office, were on hand to help him.

Association Officials Travel Thousands of Busy Miles

Milton J. Brock, NAHB president, in 1948 travelled 100,000 miles; attended 100 meetings, 10 conventions, and made a total of 150 speeches.

Normine W. Watkins, director membership chapter relations, NAHB, travelled 18,000 miles, attended 42 meetings, and 8 conventions. He made 12 speeches.
In appreciation of consistent and vigorous editorial policies promoting the best interests of the nation's home building industry and its individual members, the National Association of Home Builders at their Annual Banquet Wednesday evening, February 23, awarded an engraved citation to American Builder and its editor, Edward G. Gavin. Specifically mentioned in the citation is the origination of National Home Week, inaugurated at the suggestion of Gavin and the American Builder.

The citation reads: "The National Association of Home Builders is honored to present to the American Builder and its editor, Edward G. Gavin, this testimonial of the industry's appreciation of the American Builder's co-operation during the last seven years and particularly its proposal for the establishment of National Home Week. Presented at the Annual Convention of this Association in Chicago, Illinois, February 1949. M. J. Brock, President; Frank W. Cortright, Executive Vice President."

Theodore W. Walsh, Melbourne, Australia, traveled 10,000 miles to attend the NAHB Convention and Exposition. While here he became a member of the Association.

Local Chapter Secretaries Talk Problems During Annual Meet

Nearly 90 secretaries of local NAHB chapters assembled at the headquarters of the Chicago Metropolitan Home Builders Association Sunday during the annual Convention for an all-day conference dealing with major functions of association work. The presiding chairman was Martin C. Huggett, Chicago, and the meeting was opened at 9:00 with a statement by Normine W. Watkins, Director of Membership and Chapter Relations, NAHB, Washington.

With the exception of the luncheon session, operation of the conference was by means of panels. The first panel was on the subject of conducting successful association and committee meetings. The panel was headed by George Brunner, Buffalo, as moderator. The accepted and tried techniques of conducting meetings was thoroughly explored.

The second panel session of the morning round was conducted by James M. Lange, and dealt with organization and functioning of local association financing. The range of discussion included research and investigation, competition among members and architects, association sponsored plans, and relations with FHA.

The first panel of the afternoon session was led by William J. Guinan, Detroit, and the subject was public relations.

A second afternoon panel was on the subject of local association finances, and was led by Richard M. Sandberg, Cincinnati. The discussion revolved around budget and dues systems, magazine and bulletin publication, year books, plan books, home shows, insurance plans, membership promotion.

THE SECRETARIES group at their luncheon in the headquarters clubroom of the Chicago Metropolitan Home Builders Association during the Annual Convention sessions.
Socialized Housing Rapped
In NAHB Policy Statement

The National Association of Home Builders at the 5th Annual Convention and Exposition pledged its membership to produce quality houses within the means of middle and lower income families.

"Today thousands of American families in surprisingly low income ranges are enjoying comfortable modern homes of quality which symbolize our program and our ability to house all the American people," the NAHB statement of policy asserted.

"We re-affirm this pledge for the coming year with full determination to construct, in increasing volume, homes within the reach of those whose demands are the most urgent." This statement came out strongly against federally subsidized socialized public housing and other direct federal participation in the housing field. Opposition of the home builders is based "on the evidence that socialized public housing does not clear slums nor house the lowest income group. Its excessive costs must be levied at the American taxpayer."

On the matter of slum clearance, the builders asserted that responsibility for such a program belongs to state and municipal governments. They recommended that re-development of blighted areas be carried out in accordance with comprehensive community planning.

Concerning housing measures now before Congress, the policy statement recognized "that state and local governments must co-operate in any plan for re-development of the more extensive areas, inasmuch as such re-development must be carried out in accordance with comprehensive community planning."

"We re-state our conviction that the responsibility for such planning and re-development is within the local jurisdictions and that this responsibility be accepted on the local level." Our Research Department has been studying cost breakdowns and methods of more efficiently handling all kinds of building products and their assembly to attempt to remove any excess costs that may be involved in the production of housing which could contribute to a better house at a lower price," the policy statement asserted. "At the same time the supply of materials has improved and there are signs of improved productivity of labor."

The cost of housing appears at last to be leveling out. However, these encouraging indications may well be sharply reversed by a multi-billion dollar Federal socialized public housing and slum clearance program which would force costs upward by competition with private builders for land, labor, and materials."

Our home builders will continue to seek amicable work relationships with
1949 Officers of National Association of Home Builders

**PRESIDENT**
Rodney M. Lockwood, Detroit, Mich.

**1st VICE PRESIDENT**
Thomas P. Coogan, Miami, Fla.

**SECRETARY**
Nicholas F. Molnar, Cleveland, Ohio

**2nd VICE PRESIDENT**
W. P. (Bill) Atkinson, Oklahoma City, Okla.

**TREASURER**
Nathan Manilow, Chicago, Ill.

**REGIONAL VICE PRESIDENTS**

- **WALTER JOHNSON**, Niagara Falls, N.Y.
- **ROBERT A. BREADY**, Baltimore, Md.
- **GEORGE A. GOODEVEY**, Charlotte, N.C.
- **EMIL J. GOULD**, Miami, Fla.

- **KIMBALL HILL**, Chicago, Ill.
- **O. G. (Bill) Powell**, Des Moines, Iowa
- **RICHARD G. HUGHES**, Pampa, Texas
- **ALEX G. ADAMON**, Salt Lake City, Utah
- **T. A. HUTCHINSON**, Denver, Colo.

**ALABAMA**—Sam Russell

**ARIZONA**—Chas. R. Malowney

**CALIFORNIA**—David D. Bohannan
- **NIELS SULTZ**, E. B. Standish
- **HARRY J. FINKENSTEIN**, Fritz Burns
- **ARTHUR A. BELIEVAU**, Lloyd S. Whaley
- **MILT. J. BROCK**, Glenn Bailey
- **PAUL L. BURKHARD** (t)
- **GEORGE A. GOODEVEY**
- **JAMES R. BAIRD**, Paul L. Burkhard (t)
- **ALBERT E. THOMPSON**, E. B. Standish
- **FRED C. SCHMIDT**, Niels Shultz
- **HARRY J. DURBIN**, Milton J. Brock
- **RODNEY M. LOCKWOOD**, Fritz Burns
- **EDMUND KUHLMAN**, C. Earl Colomb
- **HARRY J. DURBIN**, John A. Olson
- **LOYD G. WELLER**, George Vadnais

**COLORADO**—M. C. Bogue
- **J. C. GAMBLE**

**CONNECTICUT**—David Williams
- **ABRAHAM D. HORN**, Abraham D. Horn
- **IVING R. STICH**, E. B. Standish
- **J. G. FORBES**, Don C. Peacock, Jr.
- **JACKUS BROWN**, James Jansen
- **R. M. DILLON**, Joseph Meyerhoff

**DIST. OF COLUMBIA**—Edward R. Carr
- **CLARENCE GUSELL**, Clarice Daniel
- **WILLIAM J. BANKS**
- **DONAL CHAMBERLIN**, Don C. Peacock, Jr.
- **WAVERLY TAYLOR**

**FLORIDA**—George D. Wood
- **THOS. P. COOGAN**, Thos. P. Coogan
- **J. M. KAGEY**, Claredon B. Miller
- **S. C. GOMEZ**, Don C. Peacock, Jr.
- **JOHN W. DILLON**, John W. Dilllo
- **CARL GELLERT**, Carl Gellert
- **EARL PAPPENHEIM**

**GEORGIA**—B. A. Martin
- **V. S. BEECH**, J. M. Kagey
- **LOIS SCHULTZ**, Joseph Meyerhoff
- **JACK MAHAMON**, Louis Schultz, Jr.
- **CARL GELLERT**, Carl Gellert

**ILLINOIS**—John B. Goodwin
- **J. M. HAYES**, J. M. Kagey
- **WILLIAM C. CARTER**, Louis Schultz, Jr.
- **LLOYD G. WELLER**, Louis Schultz, Jr.
- **JOHN W. DILLON**, Carl Gellert
- **W. P. (BILL) ATKINSON**, Carl Gellert
- **WALTER NELLER**, Carl Gellert

**INDIANA**—Paul J. May
- **GEORGE A. POAG**, W. P. (Bill) Atkinson
- **M. L. HALL**, Walter Neller
- **ALBERT E. THOMPSON**, W. P. (Bill) Atkinson
- **FRED C. TUCKER**, W. P. (Bill) Atkinson

**IDAHO**—Herschel Stanfield
- **J. C. GAMBLE**, John B. Goodwin
- **WALTER NELLER**, W. P. (Bill) Atkinson

**IOWA**—D. H. Roach
- **J. M. HAYES**, W. P. (Bill) Atkinson
- **W. P. (BILL) ATKINSON**, W. P. (Bill) Atkinson
- **LLOYD G. WELDER**, Walter Neller
- **JOHN W. DILLON**, W. P. (Bill) Atkinson

**KANSAS**—Chas. R. Malowney
- **W. P. (BILL) ATKINSON**

**KENTUCKY**—W. P. (Bill) Atkinson
- **J. M. HAYES**, W. P. (Bill) Atkinson
- **WALTER NELLER**, W. P. (Bill) Atkinson

**KANSAS**—Chas. Horise Knecht
- **H. R. CONDON**, W. P. (Bill) Atkinson

**MARYLAND**—4J. P. Bourne
- **J. M. HAYES**, W. P. (Bill) Atkinson

**MASSACHUSETTS**—Alfred D. Coll
- **J. M. HAYES**, W. P. (Bill) Atkinson
- **J. C. GAMBLE**, W. P. (Bill) Atkinson

**MAINE**—Clifford L. Swan
- **J. M. HAYES**, W. P. (Bill) Atkinson

**MICHIGAN**—O. G. (Bill) Powell
- **JOHN W. DILLON**, W. P. (Bill) Atkinson
- **WALTER NELLER**, W. P. (Bill) Atkinson
- **CARL GELLERT**, W. P. (Bill) Atkinson

**MINNESOTA**—Emil P. Fronk
- **J. M. HAYES**, W. P. (Bill) Atkinson
- **WALTER NELLER**, W. P. (Bill) Atkinson

**MISSISSIPPI**—F. R. Kimbrough
- **J. M. HAYES**, W. P. (Bill) Atkinson

**MISSOURI**—John C. Taylor
- **J. M. HAYES**, W. P. (Bill) Atkinson
- **WALTER NELLER**, W. P. (Bill) Atkinson

**MONTANA**—J. M. HAYES
- **WALTER NELLER**, W. P. (Bill) Atkinson

**NEBRASKA**—Robert Dillon
- **WALTER NELLER**, W. P. (Bill) Atkinson

**NEW HAMPSHIRE**—Romeo P. Morin
- **WALTER NELLER**, W. P. (Bill) Atkinson

**NEW JERSEY**—L. Samuel Sodowick
- **WALTER NELLER**, W. P. (Bill) Atkinson
- **WALTER NELLER**, W. P. (Bill) Atkinson

**NEW MEXICO**—R. B. Waggoman
- **WALTER NELLER**, W. P. (Bill) Atkinson

**NEW YORK**—Clifford E. Picotte
- **WALTER NELLER**, W. P. (Bill) Atkinson
- **WALTER NELLER**, W. P. (Bill) Atkinson

**OHIO**—Clintom R. Miller
- **L. H. POPP**, J. M. Hayes

**OKLAHOMA**—William S. Banks
- **J. M. HAYES**, W. P. (Bill) Atkinson

**PENNSYLVANIA**—Frank Corace
- **J. M. HAYES**, W. P. (Bill) Atkinson

**RHODE ISLAND**—Albert J. Lamarre
- **J. M. HAYES**, W. P. (Bill) Atkinson

**TENNESSEE**—John B. Goodwin
- **J. M. HAYES**, W. P. (Bill) Atkinson

**TEXAS**—E. P. Lambeth
- **W. W. CARRER**, W. W. Carrer
- **H. LESLIE HUNT**, W. W. Carrer
- **WILLIAM C. CARTER**, W. W. Carrer

**UTAH**—C. Taylor Burton
- **W. W. CARRER**, W. W. Carrer

**VIRGINIA**—Earl H. Wicker
- **J. M. HAYES**, W. P. (Bill) Atkinson

**WASHINGTON**—W. O. Stringfellow
- **J. M. HAYES**, W. P. (Bill) Atkinson

**WISCONSIN**—Frank Kirkpatrick
- **J. M. HAYES**, W. P. (Bill) Atkinson

**WOODBURY**—John M. Mowbray, Baltimore, Md.

**NOTE:** (t) Elected for two years in 1948
Cortright’s Column

By Frank W. Cortright

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

Can you get construction loans in your community?

Can your buyers finance the home you would like to build this year?

Are you and your buyers more or less satisfied with your mortgage lenders than you were a year ago?

Are your mortgage lenders handling demands for construction loans in a timely manner?

What is your community doing to promote the development of new homes?

What is the state of the housing market in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the state of the housing market in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?

Are there any special problems in your community that could be handled better?

What is the cost of building a new home in your area?

What are the biggest problems in the housing industry today?

What is the state of the mortgage market in your area?

What is the state of the economy in your area?
All Women Panel Urges More Livability in Low-Cost Homes

A capacity crowd of both men and women turned out for the all woman's program staged by the lady builders in the South Ballroom at The Stevens Monday forenoon. The meeting was one of the most delightful as well as highly informative sessions to be held at the Convention. The panel comprised of women builders and women editors covered such topics as builder-client relationships, economy houses, interior decorating, what American women want incorporated into today's home, and how to defend against socialized housing.

Throughout the session the thought was stressed that more livability be incorporated into the small low-cost home. Charging that family living is going bit by bit as the house is reduced in size and quality, Mrs. Mary Davis Gillies of Chalaron, builder of New Orleans, La., spoke on The Attractive Economy Home on program staged by lady builders. Urged varied exteriors to keep out monotony. In 1948, she built 36 homes in $8850 to $10,250 price range.

Mrs. Henry Chalaron, home builder of New Orleans, La., spoke on The Attractive Economy Home on program staged by lady builders. Urged varied exteriors to keep out monotony. She remarked.

There is no price tag on good taste, originality, or character, Mrs. Henry Chalaron, builder of New Orleans, La., spoke on The Attractive Economy Home on program staged by lady builders. Urged varied exteriors to keep out monotony. She remarked.

The interior shell of the house as a merchandising tool was the topic Mrs. Maxine Livingstone of Parents' Magazine covered. “Through the judicious use of color you can create the illusion of space in even a small room,” Mrs. Livingstone commented. “Anything you builders can do to literally and figuratively push out the walls of these small low-cost houses will mean greater livability to the family and more sales to you.”

Mrs. Lillian Moebus, realtor of Tulsa, was chairman of the panel. She was also responsible for planning and staging the program.

Celotex Corporation Promotion Campaign Commended by NAHB

One of the resolutions passed at the 1949 NAHB Convention in Chicago was also responsible for planning and staging the program. Cutting combinations for gold-plated "Keys to Happiness" in the Yale & Towne booth during the convention.

American Builder, March 1949.

"Keys to Happiness" Were Made For Visitors to Convention

Home builders who are planning to use the “Keys to Happiness” idea can now obtain “Keys” booklets from the NAHB, Association officials have announced. The new public relations idea is to present to new home purchasers a pair of gold-plated, specially-coined keys bearing the NAHB insignia on the bow and the words "Keys to Happiness" on the blade.

Keys are produced by leading lock manufacturers under licensing agreements with the Home Builders. The purpose of the project, is to provide home buyers with an attractive momento of the purchase, plus information about the builder and the industry.

Yale and Towne Manufacturing Co. distributed the new keys at their convention booth. When a key to a Yale front door lock was presented they made a gold-plated “Key to Happiness” while the owner waited.

Complete sample sets of the keys, the booklet and the silver chain have been mailed from the NAHB Washington headquarters to presidents and secretaries of local associations.

Convention Sets Record For Press Representation

That the eyes of the nation focus on the NAHB Convention and Exposition is best proved by the thorough coverage accorded this year’s meeting by the nation’s press. Registrations from large metropolitan dailies, business and consumer publications reached a record number in excess of 350.

Only the two national political conventions and the American Legion national meeting draw a heavier representation of the press than the NAHB. NAHB public relations director Walton Owsle and his staff spent a busy week in Chicago setting up elaborate press room facilities in the Stevens Hotel where press releases, conferences and all types of special requests were prepared for the reporters and editors.
YOUR CUSTOMERS LOOK FOR

all THESE ADVANTAGES OF...

Bright and efficient, clay tile for floors, walls and countertops keeps its fresh, spic-and-span appearance for a lifetime. Exposure to heat or cold, dampness or dryness will not affect clay tile.

Long term economy of clay tile means lower end-cost for the homeowner. With no recurring charges for maintenance or replacement, tile is a sure sign of careful, thrifty planning.

For specific information regarding available types, sizes and colors, see Sweets Architectural or E-C-A File. THE TILE COUNCIL OF AMERICA, Room 3401: 10 East 40th Street, New York 16, New York. Room 433: 727 West Seventh Street, Los Angeles, California.

PARTICIPATING COMPANIES: American Encaustic Tiling Co. • Architectural Tiling Company, Inc. • Atlantic Tile Manufacturing Co. • B. Mifflin Hood Co. • Cambridge Tile Manufacturing Co. • Carlyle Tile Co. • General Tile Corp. • Gladding, McBean & Co. • Mosaic Tile Co. • Murray Tile Company, Inc. • National Tile & Manufacturing Co. • Olean Tile Co. • Pacific Clay Products • Pacific Tile and Porcelain Co. • Pomona Tile Manufacturing Co. • Robertson Manufacturing Co. • Sparta Ceramic Co. • Summitville Face Brick Co. • United States Quarry Tile Co.
Take any one
Kelvinator's complete line of "Space-Saver" refrigerators...6 new models...

all one width 31\(\frac{1}{4}\)"
—for easier kitchen planning!

Choose models by budget—no change in floor plans needed!

It's the new complete line of 6 superb Kelvinator Refrigerators. Model for model...
_all are 31\(\frac{1}{4}\)" wide_. Pictured at the left is the new 8.6 cu. ft. Model RS...that holds nearly 50% more food than previous 6 cu. ft. models of the same floor dimensions. Value-priced and Kelvinator top quality throughout.

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

Get Kelvinator's 1919 "Space-Saver" Package. "Space-Saver" Refrigerator only 24 in. wide is full 6 cu. ft. Companion range is only 21 in. wide, with advanced design permitting installation flush against wall. Top-of-the-line quality throughout. For further information, write Kelvinator, Division of Nash-Kelvinator Corporation, Detroit, Michigan.
Another Showdown Is Near

A NEW HOUSING BILL, S. 138, has been written and referred to the Senate Committee on Banking and Currency. The bill contains all of the socialistic features of the T-E-W bill which were rejected by the Eightieth Congress. The only major difference is that the new bill proposes government expenditures much higher than those stipulated in its predecessor. It is expected that S. 138 will reach the floor sometime this spring. Thus, another showdown looms on the issues of public housing, federal aid for slum clearance and federal research in building materials and techniques.

The bill is even more dangerously inflationary than the defeated T-E-W bill, and cannot help increasing taxes without providing one single dwelling unit that would not be provided by a free home building industry operating without the bill. It calls for an appointed head of a vastly expanded federal housing agency who can, if he wishes, exercise the unlimited powers of a czar over housing. It opens the way to complete socialization of housing with inevitably fewer and poorer houses at greatly increased costs for everyone, as the pitiful housing plight of England proves.

It is a dishonest bill in that it is being promoted as a measure that will provide wholly or partly subsidized rent for the lowest income groups. It definitely excludes the lowest income groups from the benefits of public housing, and thus exposes its real purpose, that of breaking down lower middle class resistance to socialism. It places the tax burden of clearing slums in a few large cities on the entire population, while entirely overlooking the fact that urban slums can be cleared at any time city governments decide to enforce the ordinances that already form parts of their health, sanitation and safety codes.

To placate farmers, all of whom will be forced to bear a full tax share of clearing big city slums, the bill places a premium on irresponsibility and shiftlessness by reversing every accepted principle of credit, and expects the farmer as well as the city man to stand for still more taxes to house the idle. It does it by providing federal financial aid to the farmer who can show that he “is unable to secure the credit necessary for such housing from other sources upon terms and conditions which he could reasonably be expected to fulfill.”

It places the government in competition with builders for materials and mechanics, and with expanding government housing programs will inevitably reduce both builders and their mechanics to the state of government hirelings doing the bidding of a housing czar. Both present and future generations will bend under a staggering tax load while existing in the kind of cubicles that pass for housing in England today, whether or not there is incentive to earn and acquire something better.

The building industry cannot defeat the bill, but it can tell the facts to the public. If the public is told what public housing will cost it in taxes, sub-standard dwelling units, regimentation, and denial of the opportunity to enjoy the fruits of its own earnings, popular demand will defeat S. 138.
FAST-GROWING population in a small city requires ingenuity and sound foresight by home builders whose responsibility and ambition is not only to expand operations to house the incoming population but also to maintain good standards in house construction and subdivision development. In 1940, metropolitan Wichita, Kans., had a population of 127,308. This was increased by 72,447 to 199,755 in 1948 to make that city show one of the biggest percentage gains of any in the nation.

Russ Prater, of Russ Prater, Inc., is one of the home builders in Wichita who observed the rapid growth of his city. With limited resources but a large amount of nerve and ambition, he set out to keep pace with the city's growth by gradually expanding his home building operations so that, by the end of 1948, he had completed well over 2,000 units in and around Wichita and that section of Kansas. Prater is now completing a 450-house project of two and three-bedroom single-family homes selling at $8,600 to $10,750. Because he has faith in Wichita's future as a good place to live, he has completed 49 four-family bungalows and 39 duplexes within the city.
Pace with a Fast-Growing City

By expanding his home building operations in step with rapid growth of a small city, this builder now not only erects hundreds of two and three-bedroom, low-priced houses each year, but has completed several hundred rental units which he owns and manages as income property.

ALTHOUGH Prater's major operations are in Wichita, he also builds in seven other towns in western Kansas and finds this plane especially convenient for travel to and from the various building jobs.

Housing erected by Prater is not bulked in one large subdivision, but is located in several different parts of the city. The 49 four-family bungalows are in two groups in new sections near transportation and schools. Although one basic floor plan was used for all 49 structures, a pleasing variation in exterior appearance was achieved by changing front elevation roof lines, entrance arrangements, different colored brick, stone and paint on trim. The fact they are located on large lots, many of them on curvilinear streets, also adds to their attractiveness as dwellings for those who need but one bedroom and limited dining facilities.

Construction of these units is conventional frame with brick and stone veneer exteriors. Interiors are gypsum board dry wall. One-third of the area under each structure is excavated and devoted to laundry facilities and locker space. Automatic Bendix washers are installed for the use of tenants.

The two end living units have fireplaces. Heat is supplied by 50,000 B.T.U. floor furnaces, gas-fired. All interior woodwork in these rental units is hardwood, natural finish. Prater explains he found in his experience that there was much less maintenance cost and damage by tenants to the natural finish woodwork. These buildings, which cost around $22,000 each, are now paying an average of $200 per month rent to Prater, or about $50 for each apartment.

The 39 two-story, two and three-bedroom duplexes to give him a total of 274 rental units which he owns and maintains as part of his building and real estate operation.

Housing erected by Prater is not bulked in one large subdivision, but is located in several different parts of the city. The 49 four-family bungalows are in two groups in new sections near transportation and schools. Although one basic floor plan was used for all 49 structures, a pleasing variation in exterior appearance was achieved by changing front elevation roof lines, entrance arrangements, different colored brick, stone and paint on trim. The fact they are located on large lots, many of them on curvilinear streets, also adds to their attractiveness as dwellings for those who need but one bedroom and limited dining facilities.

Construction of these units is conventional frame with brick and stone veneer exteriors. Interiors are gypsum board dry wall. One-third of the area under each structure is excavated and devoted to laundry facilities and locker space. Automatic Bendix washers are installed for the use of tenants.

The two end living units have fireplaces. Heat is supplied by 50,000 B.T.U. floor furnaces, gas-fired. All interior woodwork in these rental units is hardwood, natural finish. Prater explains he found in his experience that there was much less maintenance cost and damage by tenants to the natural finish woodwork. These buildings, which cost around $22,000 each, are now paying an average of $200 per month rent to Prater, or about $50 for each apartment.

The 39 two-story, two and three-bedroom duplexes are located in a good residential neighborhood. Their design makes them blend well with the single-family dwellings there. Interesting combinations of brick, stone, bevel and shingle siding with stained cedar shingle roofs were used with several different front elevations and roof lines to render pleasant variety in appearance. The structures are framed conventionally over full basements with poured foundations. Gypsum board was used on the interior walls. Each unit is heated with a gas-fired, forced warm air furnace.

These duplexes were all planned to provide living conditions approximating single-family units even to including individual attached garages. Cost was $18,000 to $22,000 per building. Prater has never had any difficulty obtaining tenants who pay $75 per month for the two-bedroom units and $80 for the three-bedroom units.

Prater's single-family two and three-bedroom dwellings are located in several subdivisions on the edge of Wichita. All studs and standard framing members are precut on radial saws adjacent to the site. After excavating, which is done by a subcontractor who works 98 per cent of the time for Prater, specialized crews move in to set forms, pour concrete, box foundations, frame, roof, sheath, trim and finish the houses. By carefully timing starts and work by the specialized crews, houses are being completed ready for occupancy in about 60 days after ground is broken.

Interior walls are finished with gypsum board and wallpaper. Floors are hardwood with linoleum in the
TWO different versions of the 39 duplexes. These photos and plan below illustrate two-bedroom units only. Three-bedroom plan puts additional bedroom over the attached garage.

MATERIALS USED IN RUSS PRATER, INC., PROJECTS

Ace bronze screens
Alabama Pipe Co. cast iron pipe
American Standard plumbing fixtures and trimmings
Anaconda, Paramite and G.E. electrical cable
DeVoe & Reynolds and Lowe Bros. paint
Eagle Picher Lead Co. plumbing lead
Exchange Saw Mill oak flooring
G.E. and Bryant electric switches and receptacles
General Plywood doors
Homalko or Marona cedar shingles
Insulite and Celotex insulation board sheathing
Lightolier, Frankalite, Globe, Verdon, Gill and Gross Chandelier lighting fixtures
Lennox, Coleman and John Zink furnaces
Markel LaSalle bathroom heaters
Mission hot water heaters
National and U.S.G. gypsum board
Protex weather stripping and window balances
Republic Steel water and gas steel pipe
Dock Island window sash
Schlage and Hollymade door locks
Square D, Westinghouse and Austin circuit breakers
Stanley cabinet hardware and butts
Stockman steel pipe fittings
U.S.G. mineral wool

American

kitchen in the house, which is fired, is stalled, heated and floor 5.

B.T.U.

Part

includes a stick plant with a stick linen on
ta feature and are fabricated. All millwork and wall
ated, we found can be operated with electric. The keep the

In a house

Wichita in

City,

Great

Pherson

ita and the entire

He needs

until he
cluding

lawn

The

Jesse

Russ

eral

and

the

secrets
American Builder, March 1949.

kitchens and bathrooms. Some of the houses are heated with gas-fired, forced warm air units installed in basements, and others are heated with floor furnaces. Where floor furnaces are used, a 12,000 B.T.U. wall heater is installed in the bathrooms.

Part of the Prater operation includes a complete small millwork plant with all equipment, including a sticker. All kitchen cabinets, linen cabinets and other built-in features of the Prater housing units are fabricated here and on the job. All millwork and trim except doors and window sash are now fabricated in this plant. It has been found that a considerable saving can be achieved with this type of operation if enough outside work from other builders is accepted to keep the millwork plant running at a good pace all the time. There are 19 employees in the plant.

In addition to building houses in Wichita, Prater has finished or has under way operations in Garden City, Hayes, Dodge City, Pratt, Great Bend, Ellinwood and McPherson, Kans. All sales in Wichita and the other cities are handled entirely by his own organization. He never puts a house up for sale until it is completely finished, including basic shrubs and front lawn seeded.

The key personnel in the organization, in addition to Prater, are Jesse Graham, vice president of Russ Prater, Inc. Graham is also general construction superintendent. He and Prater buy all materials and handle the personnel. Margie Asmann is secretary-treasurer of the firm.

ONE VERSION of the three-bedroom house, located on a 60x145-foot lot with detached garage, priced to sell for $10,750

A TWO-BEDROOM model with attached garage, on 60x145-foot lot, priced at $8,600. Price includes seeded lawn, basic shrubbery

ANOTHER three-bedroom model. Standard equipment includes venetian blinds in all front windows, upward-acting garage doors

CONCRETE PAVEMENT, curbing, walks, driveways and porches add to the attractiveness and cleanliness of this subdivision
Price tag on Levitt houses includes sales features adaptable to developments of smaller builder

A BETTER-designed small house and a better-designed large house are the twin features around which the 1949 big-scale operation of Levitt & Sons revolves on Long Island. The third year of mass construction finds a new community of 6,000 small homes already built with apparently undiminished demand for more and better ones in the same price range. Smaller subdivisions of higher-priced houses sell relatively as easily.

Despite the size of the Levitt operation, there are lessons to be learned from it by the small builder. One is in the foresight that has built sale-ability into the homes in advance of the return of a buyer's market, so that buyers still are eager to get down their money on a Levitt house—and will wait months, if necessary, to get into one.

The experience with the new 1949 designs for a two-bedroom, fully-equipped small house demonstrates this. They sell for $7,990 and $8,500. When a model house was built and opened for inspection, 372 orders were taken over one weekend. The higher priced house is for corner locations on lots of 6,500 square feet minimum. Other lots are 60'x100' feet.

The facility with which these sales were made was not due entirely to the price tag, but was due partly to the recognition of how the equipment in the house would ease future strain on the family budget. The buying urge was so strong that purchasers were willing to accept a certain amount of regimentation — such as restrictions against fencing in their properties — in order to get their down payments accepted.

It is apparent that Levitt planning has been concerned just as fully with taking competition out of the buyer's budget as it has with taking man-hours out of the construction costs of the house. Here are some of the ways in which this has been done.

1. Today's housewives have been subject to such a barrage of advertising...
NEW Home Models Accelerate Sales

American Builder, March 1949.

Business districts, shopping centers and recreation facilities have been estimated that the population of Levittown ultimately will be from 30,000 to 32,000. This figure is not excessive, for there are now 6,000 homes occupied, and present plans call for the addition of 2,000 more in 1949.

To provide for this population, a water supply system costing a million and half dollars has been installed. It includes nine supply wells and six diffusion basins.

Three school sites have been reserved in the section already developed. This will be sold to the school districts at just the acreage cost of the undeveloped land.

Three shopping centers also are on the plans, and construction is progressing on some of these. Parking space and circulation is provided for them.

Original plans for recreation facilities were expanded last year. Provision is now made for six swimming pools to serve the 6,000 homes already built. Each pool will be 100x150 feet. Park and playground areas adjoin. There will be softball fields, handball courts, tennis courts and the like.

When completed, these facilities will be turned over to the Levittown Park District which will maintain them. The cost of these to home owners will represent about $5 per year on the tax bill.

While the initial houses built in Levittown were exclusively for rent to veterans, this year’s plans are for homes exclusively for sale. The

business districts, shopping centers and recreation facilities have been estimated that the population of Levittown ultimately will be from 30,000 to 32,000. This figure is not excessive, for there are now 6,000 homes occupied, and present plans call for the addition of 2,000 more in 1949.

To provide for this population, a water supply system costing a million and half dollars has been installed. It includes nine supply wells and six diffusion basins.

Three school sites have been reserved in the section already developed. This will be sold to the school districts at just the acreage cost of the undeveloped land.

Three shopping centers also are on the plans, and construction is progressing on some of these. Parking space and circulation is provided for them.

Original plans for recreation facilities were expanded last year. Provision is now made for six swimming pools to serve the 6,000 homes already built. Each pool will be 100x150 feet. Park and playground areas adjoin. There will be softball fields, handball courts, tennis courts and the like.

When completed, these facilities will be turned over to the Levittown Park District which will maintain them. The cost of these to home owners will represent about $5 per year on the tax bill.

While the initial houses built in Levittown were exclusively for rent to veterans, this year’s plans are for homes exclusively for sale. The
AFTER copper coils for radiant heat are laid, ready-mix concrete is delivered to site for floor slab. Framing begins on slab. Plates, studs, joists, rafters are precut.

In 1948, a block of 1,800 houses that had been rented for a full year was offered for sale to the tenants by Levitt & Sons. At the time, the tenant was paying $65 per month rent. If he agreed to purchase, his back rent was credited for down payment and his monthly payment was cut to $57.50 which included all amortization, interest, taxes and insurance.

In 1949, sales still are being restricted to veterans, and the volume of sales indicates there are plenty of veterans willing and able to buy these homes at the price asked. Advance sales of 745 homes was made, and Levitt ceased taking orders. Selling will be resumed later in the year after construction of the new designs has progressed. The first of the new homes is expected to be finished in March.

Along with the continuation of the mass production of small homes, Levitt & Sons is continuing to erect a luxury home in the middle price bracket. Like its smaller relative, it shows improved appearance and design over those which Levitt built last year in that price range. While only one floor plan is used, the exterior variations in elevation, combined with variation in exterior materials, lends the appearance of custom designing to the development.

The larger homes are being built in Manhasset, L.I., in a subdivision which is heavily wooded and has rolling topography. This makes it possible to preserve the original trees in many cases, and curvilinear streets fit naturally into the topography.

Most of the elevation variation permit an expansion attic which can easily accommodate two additional bedrooms and bath, as well as extra storage space. Future additions of this kind would convert them into four or five-bedroom homes, since the first floor plan provides two bedrooms and a third room that can double as a guest room or den.

At present, 78 of the deluxe homes are under construction. Prices range from $18,500 to $23,000, depending upon the size and location of lots and the choice of exterior finish. All of the deluxe homes that Levitt proposes to build in 1949 have already been sold from their plans.

There is no question but that the size of the Levitt & Sons organization gives it advantages in cutting construction costs. This is apparent in the buying through Levitt’s own supply company, in the ability to maintain large inventories to take advantage of market breaks, and in the labor-saving production and employment.

KITCHENS are equipped with electric refrigerator, stainless steel sink, electric range and steel cabinets. Double opening fireplace with sliding screen separates kitchen from living room. Upper right, over washer, is compact oil-burning heating unit. Stairway leads to unfinished attic.

BATHROOM has walls of linoleum-covered plywood, asphalt tile floor. Cabinets and built-in drawers serve as linen closet between bedroom doors. center. Notice shelf space...
production line techniques he can employ on the site.

But behind this there seems to be another factor that makes this possible—an absence of friction within the organization that makes it function smoothly. The labor relations between management and employees is such that workers do not limit their production to arbitrary amounts, but give the fullest measure possible. And in return, they earn big take-home pay checks and are assured of year-around work.

Adequate financing, too, plays its part. In addition to the resources of the Levitt organization, liquid capital is available from lending institutions to meet all needs. Four of the well known banks which provide much of the financing for Levitt are the Bowery Savings Bank, Jamaica Savings Bank, County Trust Co. and Buffalo Savings Bank.
Many desirable aspects of private homes are found in these four-family one-story units, and they provide a good return on the investment.

COMPETITION for apartment tenants may increase among landlords as the so-called housing problem subsides. When that time arrives it will mean apartment dwellers demanding more for their money and, in most cases, obtaining more.

Apartment buildings recently built by the Sims Construction Co., Clayton, Mo., are designed to meet such competition. Obtaining desirable tenants is not likely to be a problem for the owners of these units for many years. This is true mainly because the builders realized the more exacting wants of apartment clientele, incorporated them into plans, and constructed the units accordingly. In so doing, the firm has invested in a good rental property that will provide a substantial long-range income.

Privacy, in great demand by any tenant, is the outstanding feature of these Clayton apartments. Here, it is an achievement in apartment floor-planning.

The buildings are four-family, one-story units, arranged in a U-shape. Each apartment has a private front entrance, two bedrooms, living room, dining room, kitchen, bath and a side screened porch. Each building occupies a 100x135-foot lot. Ground areas in the center of the courtways are attractively landscaped and sodded, and provide excellent private recreational facilities for children.

Private garages and individual heating units are other facilities that enhance the value of the apartments. The garages for the front apartments are entered from the main street, and provide storage space for four cars. Heating units for the two front apartments are installed in the basements. The two rear units have no basements but utility rooms are provided off the kitchens.

Equipment furnished in each unit consists of an electric refrigerator, gas range, automatic hot water heater, warm air gas-fired automatic heating unit, individual ventilating fans, and a dish washing machine. Kitchens are equipped with all necessary hardware and appliances. Both electric and gas are available.

In most cases the number of tenants demanded by the competition will be worth the increase in the amount of the monthly rent. The amount is $31 to $35 a month more than the amount paid for a similar tenement, which is in no other way improved for $3,762. 

Harvey H. Sims

HARVEY H. SIMS, vice president of building firm

CHIEF elements of privacy achieved for tenants in these apartment units are seen in this plan. Each family has own entrance.
Apartments Are Desirable Income Property

BASEMENT GARAGES in two front apartment units house four cars and heating units.

dividual attic fan for summer air conditioning, kitchen ventilating fan, venetian blinds and copper screens. Kitchens and bathrooms are tile. Each apartment has hardwood flooring throughout except in the kitchens and baths where composition tile flooring was laid. Both ceilings and floors are insulated.

In 1948, Sims Construction Co. built about half the number of apartment units they planned to build because of increasing financing costs. On a $19,000 loan, financing costs increased $400.

First mortgage on two of the four-family units amounted to $68,400, FHA insured for 32 years, 7 months, at 4 per cent interest, 1½ per cent amortization plus ½ per cent. Insurance charges on that amount come to $342 for the first year, diminishing to nothing at the end of the mortgage. Interest and payoff on this first mortgage is a level payment of $313.50 per month for 391 months, or an annual payment of $3,762.

With leases per family unit of $135 per month, the Sims Construction Co. will realize a net income of $6,776 per year, exclusive of mortgage payoff, on eight one-family units. The following table shows their estimated operating expenses:

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxes estimated</td>
<td>$800.00</td>
</tr>
<tr>
<td>Janitor service—$30 per month</td>
<td>$360.00</td>
</tr>
<tr>
<td>Water per year</td>
<td>$80.00</td>
</tr>
<tr>
<td>Insurance per year</td>
<td>$240.00</td>
</tr>
<tr>
<td>Repairs and decorating per year</td>
<td>$600.00</td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td><strong>$2,080.00</strong></td>
</tr>
<tr>
<td>Interest and payoff on first mortgage</td>
<td>$3,762.00</td>
</tr>
<tr>
<td>Mortgage insurance requirements first year</td>
<td>$342.00</td>
</tr>
<tr>
<td><strong>Total, all expenses</strong></td>
<td><strong>$6,184.00</strong></td>
</tr>
<tr>
<td>Gross income ($1,620 x 8)</td>
<td>$12,960.00</td>
</tr>
<tr>
<td>Net income, exclusive of mortgage payoff</td>
<td>$6,776.00</td>
</tr>
</tbody>
</table>

Three two-story four-family apartment buildings recently constructed by the same firm in Clayton incorporated much the same design as the single-story flats, and much the same type construction.
Increasing competition for overnight tourist business demands that motel design be attractive and also provide economical maintenance and daily servicing.

**Easy Servicing**

**Features Motel**

**For Year-Round Occupancy**

**SECTION THRU CUPOLA**

**CUPOLA DETAILS**

ENTIRE MOTEL can be kept properly ventilated by the corner tower ventilator units, shown above. Norman R. Johnson, St. Paul, Minn., architect, travelled throughout the United States to gather the best ideas in motel design. Here, he incorporates them

THIS luxurious motel will attract clients the year around.
SPEED and economy in servicing and a minimum of maintenance expense feature this motel designed by Norman R. Johnson, St. Paul, Minn., architect, and built by Earl Benner, builder, of White Bear, Minn. The layout makes it possible for one maid or caretaker to service all the units by going outside only once, or for one maid to service half the units without leaving the building. Two louvre-equipped cupolas provide a flow of air through all sleeping units.

Design of the motel, erected just outside White Bear, recognizes that the traveling public now looks upon a motel as a convenience rather than an economy, and expects motels to be maintained and serviced at the same high standards of cleanliness as those of the best metropolitan hotels.

The design and construction of the motel reflects the fact that it is no longer sound investment to build a collection of separate or connected units without expert design and construction service.

While tourist travel is on the increase, there is, nevertheless, competition for overnight business, and the motel that can offer hotel comfort and cut servicing costs is the one most likely to get the business.

Party walls in this motel are insulated with Balsam-Wool, and ceilings and walls are Homasote. Insulite seals the slab from wall bases. Roof is asphalt shingle.

PLOT PLAN shows how motel is situated to take advantage of traffic from main highway. Garages are conveniently located.

THIS PLAN of the motel shows how speed and economy in servicing may be achieved.
Pittsburgh home buyers were exposed to contemporary design when this local organization decided to be "different." Not only were clients interested, but 80 per cent were sold on first sight, creating a new demand.

"Houses in many subdivisions, whether they are lined up in rows like soldiers at attention or have little or no variation in design, are selling in the current building market because clients have no other choice." This is an assumption made by an architect-builder team in Pittsburgh, Pa. The situation exists, they think, partially because many builders feel they have a special insight into potential home owners' tastes in design. They design a type of home that sells, and because it is selling, they can see no reason to "take a chance" on changing design.

The architect-builder team, Noble S. Clay, builder, and Architects Ringel & Grove did something about it. In the process of their achievements, they set a precedent in Pittsburgh, and one that might well be considered by builders throughout the country. They added a fresh note into the development housing field. Designs of the houses they build in Cliffwood subdivision, and the way the houses found ready consumer acceptance, tell a story of success in functional design.
An Architect-Builder Cooperative Venture

Moreover, this team offers proof that planning and cooperation between builder and architect react to the advantage of both parties.

The Cliffwood development, about 10 miles north of Pittsburgh, was started in the fall of 1947. Sales prices are $13,000 to $17,000. Experience with the eight houses completed and four others under construction has pointed up these interesting facts: Eighty per cent of the people are favorable to the houses with contemporary design on first sight. Ten per cent are sold after seeing them several times, and ten per cent would not have a modern house at any cost. Great difficulty was found in trying to sell a remodeled old house near the subdivision because of the attraction of the modern homes. One modern basementless house was sold to a lady, 72, who lives alone.

The houses are designed so that they take full advantage of sun, view and terrain. The application of a variety of materials to exteriors adds freshness and avoids a monotonous appearance. Flat roofs, practical overhangs, together with varied window and door treatments, add an appearance of space.

On 9,000 square foot lots, the houses are built on concrete slab foundations. Rubber tile flooring is installed in kitchens and baths, with beech flooring in the remainder of the house. Exterior wall finishes are brick veneer and frame, concrete block, lap siding, vertical knotty pine, and battens. Interior wall and ceiling finishes include striated plywood and plaster. Roof covering is asphalt shingle. Outer shell of built-up roof is granite and limestone, offering the advantage of greater sun reflective value, plus adaptability to the particular design of the house. Insulation is mineral wool batts in walls and ceilings. Houses were equipped with garbage disposal units, automatic laundries, dishwashers, hot water heaters and modern steel kitchen cabinets.

Detailed information about this type of home by the same architect-builder team is included in this month's Blueprint House presentation.
Careful Open Planning
Adding Feeling of "Space"

HOME BUYERS in Pittsburgh, Pa., enthusiastically approved the note of freshness and absence of monotony achieved in the design of homes by this firm. Builder Nobel S. Clay and Architects Ringel & Grove applied varied exterior materials and employed a plan that took advantage of sun, terrain, and view. The home presented here, and those on two previous pages, illustrates the charm their homes offer.

The flat roof, structurally strong enough to withstand the weight of snow, adds simplicity and an extra illusion of height to the elevation. The application of brick veneer, frame, concrete block, lap siding, vertical knotty pine and battens to exteriors does much to add interest and eye-appeal. Until two years ago, flat roofed houses were not considered practical in Pittsburgh because of heavy snows in the winter. Financial firms in the city would not give a loan on a flat-roofed house. Now, the city accepts them, and so does FHA. This building firm was one of the first to take advantage of the acceptance.

Large windows are placed to take advantage of exterior scenery, facing away from pedestrian traffic. The garage is situated on a level where the driveway is easily accessible.
DESIGN NO. A.B. 139

AMERICAN BUILDER BLUE PRINT SERIES

Designed By
RINGEL & GROVE
31 Investment Bldg.
Pittsburgh, Pa.

Brick Veneer

RIGHT SIDE ELEVATION

Ground Floor

Brick Veneer

Wood Siding

6-Cone Blocks

LEFT SIDE ELEVATION

Flashings

Wood Siding

Grade 1

8-Cone Blocks
PRIVATE HOME builders have consistently claimed that, given part of the subsidies provided public housing authorities, they could build reasonably-priced rental housing faster and cheaper than could the public housing groups.

In Worcester, Mass., private home builders proved this to be true by doing it. A privately financed project produced 144 dwelling units for rent at $55 per month in half the time it took a public housing authority to plan and reach the ground breaking stage for 204 units. The privately produced dwellings were completed and occupied while a real housing emergency existed. No one is living yet in one of the public housing units.

There is a lot of conjecture in Worcester as to why the public housing should be costing virtually double that of the private rental housing, while at the same time it has not actually produced an occupied unit. An examination of the facts seems to indicate that the private builders gave house hungry veterans a "bread" type of dwelling while the philosophy of the public housing authority seemed to be, "Let 'em eat cake."

The privately built subdivision of 144 dwelling units in duplexes was erected by members of the Worcester Home Builders Association for a non-profit corporation called the St. Nicholas Trust. It was financed by a cooperative group of five banks at an interest rate lower than that charged under Veteran's Administration rules. Municipal subsidy was provided by putting in the streets free, charging only 10 per cent of the usual sewer assessment, and giving the trust a break in valuation for tax purposes of about 20 per cent less than the usual valuation on comparable property.

The subdivision must be held by the trust for rental for at least five years. After that it may be sold if desired. If it is sold, any profit goes to the city as compensation for the street and sewer subsidies it advanced. Only veterans were admitted to the project at a rental of $55 per month.

Meanwhile, the city is collecting good taxes on the subdivision which formerly was low-value vacant land.

The Worcester Housing Authority, formed early in 1946, has begun construction on the Coes Pond project in Worcester of 204 walk-up apartment type units which are supposed to rent, when finished, for not more than $45 per month. They will cost about $14,000 per dwelling unit. The City of Worcester will go into debt for about $2,000,000 to make the project possible. It will receive a state subsidy of about 2½ per cent per year of the project cost for not more than 25 years. There will be an annual deficit of cost over income—just how much is not yet clear.

What puzzles Worcester citizens is that against these figures, the St. Nicholas project required no bond issue by the city. The units, while renting for $10 per month more than the public housing units are expected to rent for, cost only $7,500 per unit compared to the Coes Pond $14,000 per unit.

Moreover, they are duplexes, in an attractive subdivision, on large lots. The Coes Pond project of apartments is adjacent to a factory district in a less desirable part of the city.

The committee of the Worcester Home Builders Association, which initiated the St. Nicholas Trust project, was not formed until the spring of 1947—a year after the
Housing Authority was formed. Yet it secured the cooperation of the city, five savings banks, the Chamber of Commerce and labor—and had half of the duplexes up and occupied during the winter of 1947. The remainder were occupied by late summer of 1948. And as the last three duplexes were being built, the housing authority was just pouring foundations for its first two units of 36 apartments each. As this issue went to press, the first unit was under roof.

It has been demonstrated to the satisfaction of builders that the costs on the public housing project are not out of line for the type of construction that is being undertaken. In fact, the Worcester Housing Authority invited a committee of builders to check their figures after bids were received, and this committee agreed that the bids were fair bids. The garden apartments are of costly construction, brick and steel, and are typical of what are called "long range" public housing projects.

The point, which was expressed in an editorial in the Worcester Gazette, is that the public housing project has not met the need for low-cost, good quality rental houses during the emergency, while the St. Nicholas project has done just that.

The editorial stated, "The Housing Authority says it wanted units 'adequate in size, attractive in appearance and of permanent construction.' The St. Nicholas Trust development meets all of these conditions and still costs just a little more than half the cost per unit of Coes Pond... We want adequate houses under our city housing program, but we do not need luxury. Fourteen thousand dollars still sounds like too much for a unit of housing."

An examination of the houses at the St. Nicholas Trust development bears out the newspaper's contention that they are good, sound houses of permanent construction and adequate for decent rental property.

The duplexes have two identical apartments, each with a first and second floor. Designs are traditional, with exterior variations in materials and color, and either gable or hip roofs. The same floor plan is used throughout the development.

Foundations are concrete with full basements. Houses are frame construction with bevel siding or cedar shingles. Roofs are 210 pound Bird's asphalt shingles.

Inside walls are plastered over gypsum lath. Living and bedrooms are papered, and kitchen and bath are painted. The kitchen has wood cabinets, custom built, with linoleum counter tops and floor. The bathroom floor is tile. Other floors are hardwood.

The roof is insulated with 2 inches of mineral wool and the sidewalls with Kimsul blanket insulation. Plumbing is brass and copper with galvanized hot water tank of 20 gallon capacity. The homes are heated by Bryant automatic, gas-fired furnaces with gravity hot air ducts. Lockwood hardware is used throughout.

Despite high material costs, the St. Nicholas project was built with each duplex costing only $15,000. This low figure was not made possible by the home builders alone, but by all organizations and institutions which participated. The builders made their bids as low as possible, figuring to take out no profit. The banks set an exceptionally low interest rate. The land was sold to the trust at a very rea-
County Institution for Savings and Bay State Savings Bank.

The banks formed the non-profit trust to finance the undertaking and buy the land and building materials, acting as purchasing agent for the builders. Thirteen acres of land was bought for $10,000 and cut up into 85 lots.

While the trust did the actual buying of building materials, they were specified by a committee of the builders. Periodic payments

THE GABLE roof, traditional Colonial design, is popular in conservative East

FIRST FLOOR PLAN

SECOND FLOOR PLAN

TYPICAL floor plans show generous-sized rooms, well arranged. An 8-inch fire-wall separates the two apartments.
Ingenious planning, small cash outlay transform low rental triplexes into commercial units that bring owner more equitable rents

UNDER present rent ceilings, T. E. Denny, realtor and builder of Pasadena, Calif., could not meet expenses on four triplexes he owned on Lake Avenue. As a matter of fact, he was going into the red about $700 a month on the basis of rentals of $32.50 for the one-bedroom apartments and $40 for the two-bedroom apartments. (New apartments in the community, similar in size and not under rent ceilings, are currently renting at $85 to $125 a month.)

Because no one wants to take over a losing proposition, he could not sell the buildings. Therefore, to protect his investments, he had to consider remodeling the units for commercial use. Fortunately, Lake Avenue had become a heavily traveled thoroughfare so he felt his chances of leasing the buildings at satisfactory rentals for business use would be good.

After giving the matter considerable study and enlisting the services of Architect Norman B. Entwistle, Denny hit on a novel idea. He decided to tie all the buildings together by extending overhangs and adding other architectural embellishments and to call the group "Denny Gardens." Space would be rented to shops as well as to professional men and every effort would be made to make the environment so clean and attractive, so beautiful with stone work and plantings, that people would like to visit the little center.

This ingenious idea, which completely transformed the exterior appearance of the group of buildings, was simple to accomplish. The roof were extended about five feet toward the street and a sufficient length on the sides to form an overhang broad enough to completely cover the passageway between the buildings. Pairs of 4x4 posts tilted outward were used to support these overhangs. So tilted, the posts also supply the chief attention-getting feature of the new structure. Four-inch redwood boards, left natural, comprise the underside of the overhangs. Flush lights also installed on the underside of the overhangs illuminate the courtsways at night.

Along the sidewalk, Denny built a flagstone wall 24 inches high, capped with a layer of wider flagstone. Every 10 feet there is a planting box built of common brick about 18 inches square. The wall continues to the street corner and there, in a space of 30 feet from the side of the build-

The total remodeling bill was slightly over $8,000. The result was a jump in rents per unit from $32.50 and $40 a month to $100 and $125 a month.

Apartments Remodeled for Commercial Center

TILTED posts supporting overhangs are attention-getting feature. Method of attaching posts to overhangs are shown in drawing detail. Flagstone wall is an added embellishment.
UNUSUAL window treatment produces attractive exterior design. Drying yards enclosed by picket fence, and play pens built of redwood boards are features of rear yard.

W O O D SIDING painted a bright green, tan stucco, and expansive glass areas combine to make this modern apartment building an interesting eyeful to motorists passing on Lakewood Blvd., in Long Beach, Calif.

Designed by Francis J. Heusel, A.I.A., of Long Beach, and built by Gardner & McCall, general contractors, it is also a good example of how enterprising builders can create work. The contractors had had their eyes on the site for a long time. After Title 608 came out, they went to the property owner and persuaded him to build this multiple unit structure. The building houses 14 two-bedroom apartments, each of which has a private garage. Its total cost came to about $125,000. Each apartment, including garage, rents for $90 a month.

The building is L-shaped. It is built on a lot 185 feet wide and 125 feet to an alley. Entrance to the garages is from the alley. A 3 foot overhang extends around the entire structure. On the side of the building, 20 feet of 10-inch beveled siding is offset by a stretch of stucco. Stucco alone is used in the rear.

Entrances are recessed under the stairways to the second floors. Planting boxes built of Roman brick embellish each entrance. Doors to both the entrances and the apartments are of heavy slab. The stairs and landings are made with Chemi Stone, a plastic molded material. Striated plywood is used on the walls of the halls.

The living room windows offer a unique design feature. They project about a foot from the plane of the house and extend from floor to ceiling. The three lower panes and the center pane in the upper tier are fixed; the other two are awning type windows. Floors are hardwood throughout except in the kitchens and baths in which linoleum is used. Wall finishes in the dinettes and bedrooms vary; some are papered and others are painted. The kitchens are equipped with exhaust fans. The drainboards and backsplash of the sinks are tile.

Partitions of 1x3 foot boards spaced 8 inches o.c. separate the garages into private units. Storage space is provided in each garage by extending a 2x6 across the width of the rear wall about 5 feet from the floor and another 4 feet from the rear and placing boards on top of them. The hoods of the automobiles go under these platforms.

BRANDED PRODUCTS USED

- Standard & Crone plumbing fixtures
- Armstrong linoleum
- Russwin locks
- Fuller paints
- U.S. G. Rockwool
- Warmahl Furnaces
- NoTone chimes
- Thermidor heaters
- Herco water heaters
- Herco toilet seats
- General thermostats
- Henne Co. window hardware
Solving the Student-Faculty Housing Problem at Purdue

To keep pace with huge increase in registrations, Purdue University erected and now operates 1,100 family living units. Majority are temporary but large group is permanent.

PERMANENT housing facilities at Purdue University include 22 brick and concrete two-story fireproof buildings of this type. Each entrance provides access to four apartments, all with large window areas and cross ventilation. The 200 apartments in these buildings rent for an average of $57 per month to students or faculty members.

The tremendous upsurge in university and college registrations following the close of the second World War brought sharply into focus two facts—that students cannot be educated unless they have housing and that faculty members must have housing to be on hand to teach. President F. L. Hovde and Vice President R. B. Stewart of Purdue University at Lafayette, Ind., were quick in appraising this situation and set about early to house the large number of new students and faculty members. By mid-1948, under the supervision of W. S. Fletemeyer, director of family housing, living accommodations for 1,100 families had been provided.

One of the major projects completed is a 200-unit apartment dormitory group planned by Walter Scholer and Associates, Lafayette architects. Ideas and features gathered from extensive study in all sections of the nation were incorporated into the plans. The construction work was done by A. E. Kemmer, a Lafayette builder.

These apartment-type dormitories are constructed with four living units served by each entrance, two on the first floor and two on the second. They are erected in 22 attractive units of either two or three of the four-family units and so arranged as to blend with the rolling terrain of the
area bordering the university golf course. Lawns and walkways add to the attractiveness of the dormitory buildings.

They are of modern fireproof construction throughout, with walls of concrete covered with brick veneer on the exterior. Floors, both first and second, and roofs are of concrete slab over a steel bar joist system. Asphalt or rubber tile will eventually consti-
Houses Fabricated at University

Temporary housing erected included one project of 150 two-story prefabricated frame houses, planned by Carl Boester, of the Purdue housing research staff. They were designed to last five years, and were fabricated in sections in the University armory at the rate of four houses a day. The first house was erected November 10, 1946, and the project was completed June 1, 1947, during a period when there was an extremely short supply of almost all building materials.

The houses set on concrete footings and concrete blocks. Framing is balloon type with 2x2 studs spaced two feet on center. Exterior walls were first covered with 4x8½-foot sheets of coated paper board, which did not prove to be satisfactory and
had to be replaced during the summer of 1948. Gordon O'Reilly, of the Ford Roofing Co., working with the university's housing officials, worked out a system of economically resurfacing the exterior walls with Ford V-Neer fibre glass insulating brick siding. Additional 2x2 studs had to be added to obtain an adequate nailing base for this new exterior finish. This rehabilitation also included installation of metal drip caps over windows and new roof gutters.

**Occupants Do Own Decorating**

Interior walls in these houses are finished with aluminum-foil backed gypsum board. Second floor joists were left exposed and the flooring serves as the ceiling for the room below. All interiors were left unpainted and occupants applied paint in color schemes they desired, with paint supplied by the university. All these units are heated with gas space heaters. Roofs are covered with asphalt shingles. Each unit cost $3,500 including kitchen cabinet, kitchen range, water heater, and ice box. Tenants pay $50 per month rent, plus their utility expenses for electricity and gas, including heat. The total investment by the university here was about $500,000.

To accommodate married veterans, with children, who were registered for study, 590 barracks apartments were erected. These were moved from an army camp in Kansas and consist of one and two bedrooms, with modern facilities for living in a small apartment with limited kitchen and dining accommodations. Rents on these are $41.50 to $48.50 per month.

The university housing officials also operate a university-owned trailer camp with 106 trailers owned by veterans; the camp also houses married students. The university provides all utilities, shower baths and toilet facilities, in this central camp.

**APARTMENT barracks for married veterans with children, which were moved from an army camp and re-erected at Purdue**

**ARRANGEMENT of rooms in units. TEMPORARY exterior paper board covering with 960 square feet of floor area was replaced with fibre glass brick siding**
HERE are a few homes completed by dynamic Trousdale and his organization. His advertising and public relations is done by experts. Taking advantage of local newspapers, he encourages public to visit his subdivisions. Most important publicity, Trousdale says, is good will of owners of his homes.
THE BEST judge of any sales technique is how well it works. With almost monotonous regularity, Paul W. Trousdale, Los Angeles, Calif., has been posting “Sold Out” signs on his subdivisions since 1940. His volume steadily averages 2.1 homes completed per day.

In Rancho Vista, 320 homes sold for $11,500 to $12,800. In Lakewood Gardens, 440 sold for $10,600. In Westdale, 400 sold for $15,000 to $16,000. Ninety, three-bedroom homes on half acre lots sold for $10,900 in 1950. In Lakewood Gardens tract of 445 homes, Trousdale, in many of his developments, provides the youth of the community with recreational facilities to keep children healthfully occupied, if it is necessary. The thought back of this is to provide supervision, maintainance, plan programs and keep the enterprise active. The Trousdale Construction Co. furnished insurance and maintenance on the facilities for six months. Cost of the project to Trousdale was approximately $25,000.

In commenting on the efficiency of his mechanics, he stated that he has had 6,000 or more houses under construction for the past several years and so has been able to furnish steady work for his men and has had an opportunity to weed out the ineffective workers.

The company is constantly investigating and experimenting with new materials. One of the most promising is aluminum, according to Trousdale. He is interested in aluminum siding, shingles, windows, garage doors and foil insulation.

Trousdale, now only 33, was graduated from the University of Southern California in 1933 at the height of the depression. In 1934 he took a job with a local contractor with whom he stayed until 1940, learning every phase of the business. Most of his time was spent in the construction of palatial homes for movie stars and executives. If his past achievements during the last eight years are any criterion, the future holds great things for Paul Trousdale.
IN BUSINESS since 1925, this builder has adapted a business philosophy that makes his homes more in demand by clients. He offers a well-constructed home, but most important to buyers, his belief is that the current market price of homes is not necessarily the price at which they should be sold. Instead, "homes should sell for what they are worth."

The builder, Ivan A. MacArthur, president of the MacArthur Construction Co., Flint, Mich., is living up to his belief.

MacArthur could have marked and sold houses in his 60-house Dixieland subdivision in Flint at $7,400, the price at which similar homes were selling for in that area. FHA estimated the worth of the houses at $8,100 to $8,225. MacArthur sold them for $7,150, under Title VI. He believed that price to be the actual worth of the homes. The G.I. set-up under Title VI called for down payments of about 10 per cent; monthly payments of $45 per month.

For their money, buyers got well-constructed houses, located on 45x100 foot lots. The two-bedroom bungalows have complete basements, kitchen-dining room combinations, good-sized living rooms and baths, with stairways leading to unfinished attics.

Exposed surfaces of concrete block foundations are faced with cement, and all basement walls are waterproofed. Steel beams and columns were used to support floor joists. Sub-flooring is placed diagonally, and diagonal bracing was used in corners of exterior walls. In kitchens and bath, ½-inch plywood was used as a base under linoleum. Flooring in the other rooms is oak. Kitchens have wood cupboards that were prefabricated off the site. Counters are covered with linoleum. Laundry trays are furnished by the builder.

Outside 18-inch wood shingles are applied with 14 inches to the weather. Sheathing is ¾-inch Celotex. Walls and ceilings are plastered, and the ceilings have cotton insulation. One panel pine doors were installed, and R.O.W. windows were placed on outh side of houses. Attics were outside of houses.
The personal and business philosophy of this builder makes for better public relations and satisfied home owners.

were used. Space was left at one side of each house for the future addition of a garage. Asphalt shingles were used on the roofs.

All downspouts are installed so that they empty on to the grade. Grading was left rough, and sidewalks were placed. Drain tile was placed outside below ground level along the foundations to assure dry basements.

Coal-fired furnaces, supplied by the builder, heat the houses, and heat ducts are available to the unfinished attics.

One reason why good workmanship goes into MacArthur's homes is that 90 per cent of his subcontractors have worked with him 25 years. These men know MacArthur's building operations, and MacArthur knows the quality of their work. As a result only a minimum of supervision is needed.

MacArthur purchases all materials, supervises all work, does all selling, and handles FHA problems. His office force consists of two girls and his brother. They handle all correspondence. Since 1943, MacArthur has averaged 75 homes per year. In 1948 he completed 125.

MacArthur's crews do not work on an hourly basis but on a job basis. They are divided into four separate groups. One group takes care of exterior framing; one handles finished flooring, another interior trim, and another group applies exterior finish to the houses. Before a job is begun, each group bids for its work.

WITH these plans, MacArthur builds good low-cost houses that meet with ready sale. Good workmanship was achieved with good materials, experienced subcontractors.

COMPLETE basement and finished stairway to expandable attic, were included with these houses on 45x100 foot lots.
Engineered House Construction

Part IV—
Manufactured Concrete Forms
And Form Hardware

Better concrete work and longer life from manufacturers' forms can be achieved by observing the rules of correct mixing and handling techniques.
limits, calcium chloride may be used to accelerate hardening and early strengths, but not more than two pounds per sack of cement should be used.

Strength of concrete increases as long as drying of the concrete is prolonged. The moment concrete is permitted to dry, chemical reaction of water and cement ceases. It is desirable, therefore, to keep the concrete moist as long as possible. This can be done in several ways. In general, the best method to defer drying is, obviously, keeping the concrete moist by sprinkling—if the forms are removed. Letting concrete stand in forms will prolong drying.

A temperature of about 72 degrees is the most satisfactory curing condition. Fresh concrete gains little strength when it is exposed to temperatures of 35 degrees Fahrenheit or under.

To make sure of achieving the proper strength desired, and to make sure of economic form operations, tests for concrete strength should be made by the builder. The tests should be made with all materials he is to use on the job, and with not less than four different water contents. Tests should be made under actual job conditions.

Concrete should be placed in the forms in horizontal layers of uniform thickness. Most concrete form manufacturers recommend that concrete be poured in the corners first, before long lateral spaces are filled. In either case, each layer placed should be thoroughly compacted before the next is placed. Concrete should not be allowed to drop freely more than three or four feet, and should not be placed too rapidly. The more rapidly concrete is placed, the quicker the maximum pressure against the sides of the forms builds up. The placing rate, temperature of concrete, and the method of placing determines the pressure that the forms will have to withstand.

Maximum pressure on the forms is reached at a certain depth of concrete, and beyond that point additional amounts of concrete will not increase pressure below that depth. If the builder is to construct his own forms, he will be more concerned with the problem of pressures. By determining where the greatest amount of pressure will occur (see accompanying chart), the builder will know where to install bracing and walling. Most manufacturers' concrete forms today are made to accommodate any practicable amount of pressure, but it is up to the builder to make sure these forms are set up according to the manufacturer's directions.

Forms must be left in place long enough to allow the concrete to gain sufficient strength to support its own weight, plus that of any construction loads that it must immediately support. Usually, no forms should be removed in less than four days. It is well to remember that it takes approximate—

ABOVE photo shows hardware and how it is used with the forms being erected at right. Roofing paper will protect green slab. Slab will be cleaned by brush. Panels are oiled thoroughly before being set up

THIS manufacturer's system provides plywood faced steel frames locked together by pre-formed tie that acts also as spreader.
A SYSTEM devised by manufacturer enables builder to strip entire foundation, inside and outside forms, in one operation. This is an example of how improved forms speed up work. These forms are steel plywood panels in manufacturer's forms are interchangeable with steel panels. Steel framed with protected edges, panels are reversible. Forms make columns, beams and slabs PLYWOOD panels in manufacturer's forms are interchangeable with steel panels. Steel framed with protected edges, panels are reversible. Forms make columns, beams and slabs.

Ordinarily, the order of stripping forms will be the reverse of that in erection. The time spent in training the stripping gang in the order and manner of stripping the forms will be profitable for the builder. Greater re-use value of form materials and a better concrete job will be the result.

Care in handling forms will go far toward insuring greater re-use value. Forms should be thoroughly cleaned soon after they are stripped. They should be stored in a dry place until the next using. If steel forms are used, they should be coated with a thin coat of paraffin base form oil such as manufactured by the Standard or Gull Oil Companies.

Board forms should be soaked with water at least 12 hours before concrete is placed. This tends to tighten joints, to prevent absorption of water from concrete, and to facilitate stripping. Linseed oil cut with kerosene is recommended for oiling plywood when this type form is stripped, though any type oil or form lacquer made specially for the purpose is satisfactory.

One of the more common mis-
Cold weather concrete placing is still a common problem to some builders. While concrete is moist or wet, freezing and thawing can be the most destructive force for concrete or forms. The effective solution is a thorough understanding of the proportion of water to be used with other aggregates in the mix. Generally, less water should be used in concrete mix when it is colder; more water when it is warmer. (See table on opposite page.)

With a good basic understanding of concrete, the effect and nature of pressures, stresses and deflections, and the effect of temperature, a builder can achieve the best in concrete work.

Photos and data courtesy of—
Portland Cement Association
Symons Clamp & Manufacturing Co.
Irvington Form & Tank Corp
Universal Form Clamp Co.
Bulldog Concrete Forms, Inc.
Heating Basementless Houses—

With Radiant-Forced Warm Air

A SYSTEM of heating, which economically combines the favorable factors of radiant warm air with forced warm air, has been developed for basementless houses. Known as “radiant-forced warm air,” the system requires a specially designed forced warm air heating plant, which is now available in quantity and at low cost. Engineers and heating plant manufacturers were inspired to develop the system because of the need for a low-cost, satisfactory method of heating low-priced houses, built on concrete slabs or on foundations without basements.

International Oil Burner Company engineers and executives, who worked with builders in developing the new system, now have several hundred successful installations in midwestern homes. In discussing their concept of the problem, they say: “Since warm air rises, proper heating must begin from the floors to assure constant, comfortable temperatures throughout the living level. This principle has been established and has been the basis for gravity warm air systems as well as modern radiant heating systems. The new system goes one step further to insure more thorough and continuous application of comfortable warmth by combining advantages of both radiant and circulated warm air heating.”

Warm air is distributed through ducts in the slab or under the floor at the perimeter of the house. These ducts produce radiant heat which rises up the walls, overcoming the problem of cold air washing down the walls and over the floors. In addition to the radiant heat produced by the ducts, special warm air outlets are installed under each window to eliminate downdraft of cool air to floors from the windows. With this combination, the problems of cold floors in basementless houses can be eliminated.

When the gently rising warm air, produced by radiance from the ducts and by the outlets under the windows, reaches the ceiling around the perimeter of the house, an efficient forced air blower located in the top of furnace near the ceiling draws the warm top layer of air into the furnace and recirculates it down and through the heating system again. The furnace must be located near the center of the house. Air stratification and temperature lag—two problems encountered in radiant heating for basementless houses—have been successfully overcome with this system, which also eliminates the common problem of cold floors in basementless houses.

Unlike conventional warm air furnaces, which deliver heated air out the top into pipes and ducts, the new International Oil Burner Company’s R-9 starts heat by forcing it out the bottom at floor level. This permits the furnace to be located on the same level as the rooms to be heated. A special blower is cradled in resilient springs at the top of the unit, permitting
The R-9 International oil burner, especially designed for this type of heat, in a typical installation. The louvered door enclosing the compartment for the unit must have at least 400 square inches of opening. Air velocity at louvered door should not exceed 300 cubic feet per minute for constant operation without hum or vibration. The furnace is shipped as a "package" with all essential parts built in. To connect ducts at sides, front, back or underneath the furnace, the sheet metal worker merely needs to remove the knock-out blanks provided in openings.

In installing this system in a concrete slab, ducts may be formed by using clay tile, metal pipe properly anchored, or any other suitable material. The trunk ducts from the furnace to the perimeter ducts should always be given a slight rise from the point where they leave the plenum chamber to the point where they join the perimeter ducts. The perimeter ducts should be as close to the surface of the slab as practicable to achieve a good floor—1 1/2 to 2 inches.

The slab should be located on ground which is well drained and every precaution must be taken to keep the ground and the concrete dry. This makes a good moisture barrier below the slab essential. The outside perimeter of the slab should be insulated with two inches of waterproof rigid insulation for its full thickness and two feet under on all outside edges.

In basementless houses with frame floors on foundations, ducts may be run around the perimeter of the house as shown in the diagram for slab floor construction or they may be installed according to the other suggested layout for framed floors over crawl space. In either method the ducts should be well insulated on all sides except the upper, which will then produce radiant heat while also delivering heat to the various rooms.
Rehabilitating Farm Buildings

ANYONE driving through the country these days will note that the farmer is beginning to dress up his property. He is putting better clothes on his buildings as well as his family. Actually, this movement to improve farm property lags behind a similar trend in the cities, but there is a good reason for it.

When the war and postwar periods brought prosperity to the farmer, his first thought was to reduce the top-heavy mortgage that usually burdened his land. After that came the need for replacing worn-out machinery, improving the fertility of his soil, enlarging his working acreage or his dairy herds. These were essentials. Buildings that had not been painted for years, machine sheds and corn cribs that leaned with age, and drafty houses were displeasing to the eye and perhaps uncomfortably, but something that could wait.

Now the essentials have been taken care of for the most part, and the farmer is interested in improving his physical property. Insulated siding manufacturers have turned their attention to this market, and in so doing they offer an unusual opportunity to carpenters and contractors in the rural field. Such contractors can step into the picture as applicators of insulated siding on jobs sold through local lumber yards, who will act as dealers. They also may develop their own jobs aided by the industry's intensive promotional campaign and a strong desire on the farmer's part for what is offered.

Insulated siding offers a special appeal to farmers. After years of neglect, many of their buildings have deteriorated to the point where replacement seems the only feasible course. This frequently calls for too great an outlay and the farmer prefers to get along as he has. This is where insulated siding can do a special job. The heavy, asphalt-coated panels decorated with brick, stone and shingle designs not only beautify old buildings, but they impart other important values.

Cracks, warped boards and decay along the sill line can be covered quickly and easily. The nailing procedure and the shiplap joints which tie panels together add rigidity to a weakened building. Insulation is added. Each panel has an insulation value equal to three courses of brick, 1 1/2 inch thick lumber, or 18 inches of solid concrete. Another selling point to farmers is the fact that surfaces covered with the insulated siding never need to be painted again.

Profits are high for applicators of insulated siding. What is more,
The opportunities available to carpenter-contractors in the rural field are amply illustrated in the case of Martin Miller of Frankfort, Ill, who did the work in the pictures accompanying this article. The job was sold by a Frankfort lumber company which then suggested Miller as the applicator. In other instances, Miller has contracted his own jobs. Of interest, too, this one job has so vividly illustrated what can be done with the insulating siding on farm buildings that Miller already has been asked to bid on several other applications in the vicinity.

At the Earl Ullrich farm pictured, insulated siding offered the only means of improving some of the buildings short of tearing them down and replacing them. This was too costly a project and would have resulted in the Ullrichs’ passing up renovation work all together except perhaps for some painting. As it was, weakened buildings with large cracks caused by shrinking boards, dried out old sheathing and warped boards were covered with insulated siding. The nailing process tended to strengthen buildings. The Ullrichs chose to use all three basic insulated siding designs in modernizing their century-old homestead. The house was done with a brick design as was the machinery shed and barn. A dilapidated milk house was made sturdy-looking with stone panels, the brooder house was given the same treatment. The shingle-type panels were used on the combined corn crib and garage.

Incidentally, Contractor Miller followed new recommendations of the Insulating Siding Association on the dairy barn. The barn was furred out before siding was applied in order to form a dead air space between the old sheathing and the new panels. The association has found that this is a big aid in controlling humidity, a serious problem for dairy farmers during winter months.

Application of the siding actually was only half the job for Miller. Some buildings had to be shored up and strengthened. Decayed boards were replaced where they were so bad they would not provide a proper nailing surface for the insulating siding. New barn doors were installed and most of the windows in the outbuildings re-framed. His profit on this extra work was approximately equal to that on the siding application alone.

Somehow a new dress always goes with a new coat. And Mrs. Ullrich already is planning on new kitchen cabinets and other interior work. Thus, do the opportunities multiply for a carpenter-contractor in this type of work.
 THAT a wholesaler of building materials is neither an accident nor an expense in construction economy is proved by the growth of the Michigan Wholesalers, Inc. The firm started in 1932 with a capitalization of $7,000, purchased the buildings of an abandoned lumber yard, and rented the ground for $375 a year.

In 1948, 16 years later, paid-in capital of the organization was $350,000, and physical holdings included three large warehouses in three States, mechanical handling equipment for all loading and unloading operations, fleets of delivery trucks, a main business office in Jackson, Mich., and 40 employees including seven travelling salesmen.

The firm was started by five retail lumbermen who wanted to provide a central warehouse from which to distribute building materials in less-than-carload lots to the dealers. The reason for this move was that, with business at a low ebb, it was not profitable for individual dealers to purchase carload lots of specialty items. Since there were no regularly scheduled motor truck services at the time, obtaining small lots of many materials from manufacturers was a slow process.

Whole sales distributors of building materials perform purchasing, warehouse and delivery services that save money for dealers and builders and home buyers

However, the very conditions that led to the formation of the new company were the reason it went broke soon after it started. Sales were small, collections were slow, but operation expenses went right on. Manufacturers who had delivered material on consignment became uneasy, and it was not until a reorganization had been effected, and a new directorate had agreed to carefully supervise the business, that they agreed to go along.

By the end of 1934 there was a small profit, and by 1936 the firm was on a discount basis. All that the stockholders received, however, was convenience and service from the company, both of which were also available to all dealers in the vicinity of Jackson, Mich., the area served. In 1937 the finances of the firm were sound enough to warrant expansion into Indiana, and a division was established in Ft. Wayne.

A third division was established in Toledo, Ohio, in 1944. The Jackson division serves 13 counties in central and southern Michigan. These have a population of 650,000 people and approximately 135 retail lumber dealers. Two salesmen call on these yards.

The Fort Wayne division covers northern Indiana and a few counties in western Ohio with a population of slightly over 1,000,000 people. Three salesmen call on about 225 lumber dealers in the area. The Toledo division covers northwest Ohio with a population of about 900,000 people. Two salesmen call on about 210 dealers in the area.

Recently, the firm decided to remove all of the detail work from the division warehouse offices, except that having to do with selling, unloading and shipping of merchandise. To accomplish this, executive offices have been opened in Jackson. These offices house the executives of the company and the accounting, purchasing, credit and advertising departments. Since the company is essentially a sales organization it was felt that division offices should be set up to devote all of their time and energy to selling. Today, there are no retailers

Wholesaler Essential to Successful Dealer and Builder Operations

LEFT: Lloyd Price, manager, Jackson, Mich. division. Center: Victor Fiedler handling telephone and pick-up orders with Kardex. RIGHT: One of all-weather loading areas for delivery trucks at the Toledo, Ohio division system at Fort Wayne, Ind. division.
Wayne shed in suburban population, one of the oldest settlements in the area. The company, which covers 342 acres, has a warehouse 140 by 200 feet. The center: Unloading dock at Toledo accommodates five freight cars. Right: Fort Wayne office. Warehouse, 40 by 240 feet, and two wings provide 25,000 sq. ft. of storage space.

The bases of the company's success are the experience of its managers in purchasing items the retailers need, and in quantity and variety that most retailers cannot afford to include in inventory; fast delivery of orders to retail customers; and efficiency in handling to get materials from cars to bins and bins to delivery trucks with the least possible expenditure of time and manpower. Each of the warehouses has been supplied with every proved modern mechanical type of handling equipment that can be used.

Sixteen years of experience has taught the management what to buy both with respect to kinds and quantity of merchandise. Only nationally advertised, recognized brands of merchandise are stocked. All storage space is fully roofed, and loading docks are arranged for greatest ease of transfer, whether from cars to bins or bins to trucks. Bins are open at both ends, and materials stored in them are rotated by pushing them forward to the delivery side from the receiving end.

Merchandise handled by Michigan Wholesalers, Inc., includes: Plywood, insulation board, batt, roll and fill insulation, fibre wallboard, Preswood, prefinished flooring, floor finishes, bevel roofing, asphalt roofing and siding, asbestos roofing and siding, roof coatings and accessories, building papers, putties and adhesives, house doors, garage doors, vitrified clay pipe, fireplace equipment, nails, cabinet hardware, aluminum moulding trims, paint, paint brushes, and miscellaneous metal products.

Typical display advertising used in local circulation magazines that reach dealers.
Lumber Served "Cafeteria Style"

One way to sell lumber is to serve it the "help-yourself-way," like cafeterias serve food. The advantages of such a system are many, but the most important is that a greater volume of lumber is sold.

This has been true for W. F. Reeder who manages the Forest Lumber Co., Santa Paula, Calif. Here, a customer can drive in at either gate, and by the time he has completed the half circle that takes him out the opposite gate, he will have had the opportunity to select all the lumber and materials needed for the construction of a house.

"We planned the yard," said Reeder, "so that our customers can easily become familiar with the way our lumber is stocked and can drive right up to the pile of material they want to pick up. It prevents congestion in the yard—saves their time and our time."

Moreover, the psychology is that when a buyer may select items more leisurely, without prompting, he usually will buy more. The Forest Lumber Co. store is an example. Here, most of the merchandise is on open counters or shelves so that customers can help themselves. Reeder says that the showroom is like a supersalesman. It sells people things they had no idea of buying when they came in. Frequently, he says, some one will come in to pay a bill for material picked up in the yard, and while waiting for the clerk to get it ready, he will look over the counters and select additional merchandise. In addition to paint, hardware and builders' hardware, the store displays appliances, including washers, home freezers, sinks and cabinets.

The Santa Paula yard is one of four yards operated by the Forest Lumber Co. All of them are under the general supervision of C. E. Fortney, secretary and general manager of the company, who has headquarters at the Santa Ana, Calif., yard described in the American Builder last year. The president of the company is R. B. White, who is also president of the Exchange Sawmills Sales Co. of Kansas City, Mo.

The Santa Paula yard store is of frame and stucco construction. Plate glass windows reach from the floor to the ceiling. Two rows of glass block at the bottom achieve an interesting effect. It was built by G. J. Larson, contractor, and designed by Fortney, Reeder, and the builder.

The store is small, but it displays—and sells—a surprising amount of merchandise.
CINDER BLOCK is now successfully used in northern climates for residential construction. Such use is made possible by progress in manufacturing techniques, plus many new developments in waterproofing compounds.

In a Long Island subdivision cinder block houses are being erected, which have other unique and modern features, such as a radiant heating floor panel, supported by junior steel I-beams over a full basement. William Lohr, the builder, is erecting a very livable house on a lot 60 x 120, with a cinder block stucco finished garage, to sell for $12,500.

The house has a full basement of concrete block up to floor level. Above floor level it is cinder block, with a cement stucco finish that is painted with a waterproofing compound to prevent condensation. The inside of exterior walls is finished and plastered; partition walls are plastered directly on the 4-in. cinder blocks that set into the steel door bucks.

Two-by-eight junior steel I-beams, on 40-inch centers are placed on the concrete blocks. Over these, forms are laid for the pouring of the concrete floor slab. One inch of cinder-free concrete is first poured on the form. On top of this are 4 inches of mineral wool insulation, overlaid with Steeltex, on which is poured another inch of concrete. Then one-inch wrought iron pipes are laid for the heating panel and over this are poured another three inches of cinder-free concrete.

The heating is supplied by an automatic oil-fired boiler, net rating 150,000 B.t.u., and controlled by inside and outside thermostats that automatically take care of the wide variations in radiant heating, due to sudden changes in the atmosphere. The heating is supplemented by a circulator unit in the living room fireplace, which is constructed of face brick.

Floors are covered with asphalt tile, except the living room. This has oak parquet flooring.

Double hung aluminum windows with screens are used, with a large picture window in the living room. Another feature in the living room is the built-in bookshelves on either side of the fireplace. Bathroom walls are finished with plastic tile. Equipment includes a recessed medicine cabinet, tub and shower combination, and a large linen closet. The kitchen has built-in counters and overhead cabinets. One corner of the kitchen is to be used as a dinette. Bedrooms are ample size, with a large closet in each room.

Asphalt shingles are used on the roof, ceilings are insulated. Louvres are built in at both ends of the attic for ventilation above the insulation.

The construction of these houses makes them termite-proof and practically fireproof.
BESIDES a complete line of building materials, services offered in this new $100,000 "store" include a home planning bureau

Complete Home Building Service

One-stop buying facilities and home planning bureau are under one roof in this outstanding example of good organization

ONE-STOP buying service, plus a complete building materials "department store," is housed in the new $100,000 Wilcox Lumber Co. structure in Dallas, Texas. Clients who would like to build their own homes can find not only a library of architectural drawings in this store, but also an architect and draftsman, on duty full time, to assist in drawing plans to fit their individual needs. Moreover, in one stop under one roof, they can purchase all the materials needed to build a complete home.

This service, offered for the first time in Dallas, no longer makes it necessary for the individual to find and engage many workmen, such as a carpenter, plumber, roofer, electrician, paper hanger, architect or concrete man. Wilcox representatives take care of all these details.

A wide variety of appliances is displayed on the first floor of the building. Numerous island displays, wall show booths and glass showcases display radios, refrigerators, stoves; and for the client who plans to build or remodel, there are sample door knobs, a variety of flooring, roofing, siding, molding, or even carpenter's tools. Over each department in the salesroom is a neat, identifying sign.

The home planning bureau, located on the second floor of the building, contains a complete library on building ideas, plan books and other helpful suggestions for the home owner. This department is manned by a competent staff of building consultants who assist Wilcox clients free of charge.

The consultants make a survey of a client's needs; help him determine the kind of home he wants in size, style, layout, equipment and price. On the basis of this survey, a consultant will then advise the client in developing his preliminary ideas to create exactly the kind of home he wants. Detailed plans and specifications are drawn up, and the Wilcox consultants quote a complete price on the finished home. This lumber firm then oversees the

"CUSTOMER convenience is provided in this Wilcox display room
LITERATURE such as this 12-page brochure explains to each prospective client the benefits of Wilcox services. Other publicity carried on by firm includes extensive use of local newspaper advertising.

The Wilcox Lumber Co. has grown, in 35 years, from a small business with one employee to a firm which today employs 44 people. J. M. Wilcox, Sr., began operations in a little building 12x16 feet, with a lumber shed 16x80 feet in 1931. Today the company owns its “old” building, two warehouses, one under construction, two lumber yards, a separate paint store, and the new building which is 70x70 feet. The office building, lumber yard and paint store occupy a space of 52,300 square feet. Architect for the new building was E. L. LaFoy.

ATTRACTION interior of new Wilcox building is designed for convenience and comfort. Here, part of first floor displays are shown.
The Home Building Industry Marches On

by R. E. Saberson

While all the "whooping and hollering" is going on, private builders continue to turn out houses by thousands. What happens now if government steps in? The happiness of certain home buyers because of the high prices many purchasers were compelled to pay ... a sadness that was stimulated unduly by the all too common assertions of politicians, bureaucrats and earnest do-gooders that in some mysterious way houses could be made to escape the effects of the same economic laws that sent the price of everything else to new highs.

Even so, while all the whooping and hollering was going on, the far flung housing industry was busily engaged in turning out houses by the million despite distressing shortages of manpower and materials.

Demand Determined Price

Human nature being what it is, it was only natural to first skim off the cream and there was plenty of it in certain areas. If you could sell $18,000 houses faster than you could build them, you simply went on building houses in that price classification. When you reached the end of that string you didn't stop building houses and liquidate your business. You quite naturally turned to the next lower price classification. It may have taken some plain and fancy figuring but the fact remains that the industry kept right on working down the price scale with the result that today the great overall objection is focused on what is called the "economy house." All of this is highly encouraging to all parties concerned because it means more, and better, houses in the lower price field.

NINETEEN FORTY-NINE will go down in history as the year in which the great housing shortage began to melt away.

That's a pretty strong assertion! Melbe we'd better throw in a qualification or two so that when the statement hounches back, if it ever does in the years to come, the impact will be somewhat less embarrassing.

So, just to be on the safe side or on ice that is less thin, let's put it this way—1949 may well be the year in which the housing shortage begins to run through our fingers.

At the moment it appears reasonable to assume that the intensive attention being given the subject will continue throughout the coming year. If such is the case, something is sure to bust. You simply can't have so many smart people and so many successful concerns hammering away at a problem without finding some solutions. To assume that these vast efforts will all come to naught simply doesn't make sense.

It is our contention that more real progress has been made in residential construction methods during the past few years than in any comparable period in the history of home building. Not all of them have come to full bloom but here and there it is not unusual to encounter contributions that are very substantial. Even though they may be rudely interrupted or upset completely if the Government steps in with public housing projects which will require vast quantities of building materials. This will again interrupt the orderly flow of materials and nullify the price decline now taking place in many items used in home building.

It must not be overlooked that Government projects are seldom economical or efficient. It is doubtful whether there is a case on record anywhere that the same activity could not have been achieved quicker, better and cheaper by free competitive enterprise . . . particularly if given the same advantages or special privileges enjoyed by Government.

The zeal of the present administration to get into the housing business can only result in gumming the works so far as 1949 is concerned. It will only slow down the progress already being made by the great building industry, divert badly needed materials, retard declining prices, increase manpower shortages and raise havoc in general. It can accomplish little in the actual solution of the temporary housing shortage.

What we are driving at seems to be a reasonable premise. Instead of throwing a wrench in the gears at a time when residential construction is attaining a whale of...
a momentum, it would be a lot smarter to heave to and lend a hand in helping to accelerate said momentum. If this were done, it wouldn’t be long before the housing shortage would be turned into a housing average. Everything then produced in excess of normal needs would again add to our economic problems. Industry and labor serve best and profit most during the periods of shortages . . . not when over-production rears its ugly head.

At the beginning of 1949 it appears that all segments of the home building industry are making satisfactory progress in the adoption of new and better methods which in turn eventually means more home for less money. The large builders are constantly on the alert for anything and everything that will speed up erection and lower building costs. The extent to which they have succeeded is well known. They can be expected to maintain their ceaseless vigil and to obtain the same satisfactory results.

Generally speaking the same thing may be said of the smaller companies although to a lesser degree in the case of some of the least aggressive. Most certainly it applies to the single house builder who has little, if any, fixed overhead and depends for his profit upon his own participation in the actual construction of the home.

In other words, labor and material-saving devices and services now extend from excavating to the landscaping of the finished job. Furthermore, they apply to practically every phase of the operation. While the savings inherent in such improved methods may not be spectacularly apparent during a time when demand greatly exceeds supply, you may be sure their full force will be felt as supply and demand become more nearly in balance.

**Dealer Completes 57 Houses**

Recently we came across a dealer who had never erected more than half a dozen houses in any one prewar year. In 1948 he completed 57 attractive, economical homes simply by taking advantage of a setup which enabled him to purchase prefabricated wall, window and door sections ready to put into place and at the same time obtain all precut parts needed to complete the shell of the house. While it was readily possible to use these sections to construct a wide variety of homes, he concentrated his selling efforts on three designs which best suited the families in his locality. By building his foundations in advance, it was possible for the manufacturer to deliver the prefabricated-precut shell of the home direct to the building site where the sections and pieces went into place in a surprisingly few hours. It is needless to point out that the delivery of 57 homes to the building site eliminated inventory problems, saved handling costs, increased turnover. Most of the homes were sold from models maintained by the manufacturer and completion was accomplished in a remarkably short time.

We cite this case only to show that progress is taking place in the construction of homes just the same as in everything else . . . even though this particular dealer is generally referred to as a small operator. The term was undoubtedly correct in prewar days but is not nearly as true today . . . thanks to the home building services now available.

As time marches on the home building industry does the same thing and there are plenty of signs on the horizon to indicate it isn’t far behind the procession. For our money it need not take a back seat for any other comparable industry.
Reports from state and regional dealer association conventions conducted this fall indicate increased interest in industry affairs. Registrations in a number of instances have established new high records, and attendance at the business sessions has been better than in previous years.

Business programs, in most cases, follow the usual pattern of reports from association officials, committee reports, resolutions, panels or dealer discussion groups led by moderators with audience participation, and addresses by prominent industry and national leaders. Some of the personalities making the retail dealer convention circuit this year, addressing the sessions, are:


Brief reports on elections of officers and other pertinent data about conventions conducted in 1949 through February 10 follow:

Northwestern

R. V. Porter, of the Hawkeye Lumber Co., Oskaloosa, Iowa, was elected president of the Northwestern Lumbermen's Association at the 59th annual convention January 10, 11 and 12 in Minneapolis.

He succeeds Ward D. Briggs of the Crane-Johnson Co., Fargo, N.D. All business sessions and exhibits were in the Municipal Auditorium. Registration reached an all-time high for this association with 3,654 — 1,797 dealers, 1,135 exhibitors, 256 contractors and architects, 94 students from vocational high schools and universities and 372 guests. There were 200 individual exhibits. Other officers elected to serve with Mr. Porter are: C. M. Heimbach, Heimbach Lumber Co., Duluth, vice president for Minnesota; Hiram Munn, H. L. Munn Lumber Co., Ames, vice president for Iowa; G. B. Patterson, Rugby Lumber Co., Rugby, vice president for North Dakota; Clem Knecht, Knecht Lumber Co., Rapid City, vice president for South Dakota; Robert Kennerly, Peavey Lumber Yards, Minneapolis, treasurer, and W. H. Badeaux, Minneapolis, re-elected secretary.

Entertainment features included the annual banquet, stage show and dance at Hotel Radisson; Concatenated Order of Hoo-Hoo initiation, stag banquet and show at Hotel Nicollet, and a ladies' luncheon at the Minneapolis Terrace of Hotel Nicollet.

The 60th annual convention will be conducted in the Minneapolis Auditorium January 17, 18 and 19, 1950.

(Continued to page 123)
American Builder, March 1949.

(Continued from page 122)

**Kentucky**

The 44th annual convention of the Kentucky Retail Lumber Dealers Association was conducted in the Brown Hotel, Louisville, January 11, 12 and 13. Registered attendance was 817. There were 59 individual exhibits.

Blaine Fulton, Weingartner Lumber Co., Newport, was elected president to succeed Sam Crump of the Square Deal Lumber Co., Park City. Ben P. Eubank, Ben P. Eubank Lumber Co., Lexington, was named vice president and Don A. Campbell, Lebanon, was reelected secretary-treasurer. National Association directors are Blaine Fulton and Don A. Campbell.

Directors elected for a two-year term are Urban Boland, Louisville; Sam Crump, Park City; Harold Dossett, Paducah; L. L. Hanks, Lexington; S. W. Hearne, Ashland; Elbert Myers, Glasgow; Matt Rogers, Mount Sterling; Ira Yearly, Somerset.

Entertainment features at the convention included the annual banquet and entertainment on Wednesday evening, and a ladies' luncheon Wednesday noon.

**Ohio**

Lumber dealers of Ohio gathered at the Cleveland Public Auditorium January 18, 19 and 20 for the 48th annual convention of their association. J. Irvin Jones, manager of the Doddington Lumber Co., Columbus, was elected president to succeed Don B. Beaumont, of the Cleveland Lumber and Door Co.

Other officers named include John M. Horn of the John M. Horn Lumber Co., Hamilton, first vice president; William Stine, Stine Lumber Co., Bryan, second vice president; Allen Brain, Brain Lumber Co., Springfield, treasurer; Findley M. Torrence, Xenia, reelected secretary; Charles E. Benson, Columbus, re-named field secretary.

More than 4,000 delegates attended the many entertainment and business events, and viewed the exhibits of building materials and equipment shown by 166 different firms.

**Northeastern**

The Hotel Statler, New York, was the scene of the 55th annual meeting of the Northeastern Retail Lumbermen's Association January 24, 25 and 26. Registrations totaled 4,011 to set an all-time record for this association. There were 127 exhibitors who displayed their products to the delegates.

Willard F. Terrell, Meriden Lumber Co., Inc., Meriden, Conn., was elected president to succeed Chester T. Hubbell, of the C. T. Hubbell Lumber Corp., Albany, N. Y. Other officers chosen are: John W. Dain, Dain Supply Co., Inc., Mahopac, N. Y., first vice president; Russell L. Fish, The Welch Co., Inc., Scituate, Mass., second vice president; Frank H. Morin, Morin Bros., Inc., Fulton, N. Y., third vice president; J. Harold Stacey, Stacey Coal & Ice Co., Inc., Windsor, Vt., fourth vice president; Paul S. Collier, reelected secretary.

Norman P. Mason, immediate past president of the National Retail Lumber Dealers Association, former president of the Northeastern and of the Massachusetts Associations, was honored with the presentation of a scroll recording his outstanding work with the government and other agencies during past years. It was presented on behalf of the membership of the Northeastern by retiring President Chester T. Hubbell and Paul S. Collier, secretary.

Entertainment features at the convention included a ladies' luncheon and bridge party Monday noon; a stag dinner sponsored by the association and the International Concatenated Order of Hoo-Hoo on Wednesday evening; a ladies' theatre party Monday evening; a dinner-mixer at Billy Rose's Diamond Horseshoe followed by dancing in the Hotel Statler Manhattan Room with entertainment; a theatre party Wednesday evening.

**Southwestern**

Members of the Southwestern Lumbermen's Association elected Kermit W. Ingham, of the Kermit W. Ingham Lumber Co., Stillwater, Okla., president at the 61st annual convention in the Kansas City Municipal Auditorium January 26, 27 of the annual banquet, entertainment and dance which drew an attendance of 658 this year. A class of 20 "kittens" was initiated into the International Concatenated Order of Hoo-Hoo on Wednesday, with a stag dinner following initiation. A dinner and entertainment for ladies was conducted the same evening.


**Western**

Kent Rubow, Home Lumber and Coal Co., Boise, Idaho, was elected president of the Western Retail Lumbermens Association at the 46th annual convention in the Olympic Hotel, Seattle, Wash., January 27, 28 and 29. He succeeds H. W. Blackstock, H. W. Blackstock Lumber Co., Seattle. Building materials and equipment were displayed by 64 exhibitors and the program listed an additional 27 cooperators. Attendance was more than 1,400.

(Continued to page 186)
NEW PRODUCTS
Offered by Manufacturers

PACKAGED HARDWARE
Attractive packages include all hardware and accessories, including sill anchors and wood screws, for all agents, dealers, distributor and warehouse stocks of Ceco's Roto casement windows. Packages list what is included and indicate type of windows that can be served by the package. Separate package for each type of standard Roto casement window. Hardware for contract jobs where windows are shipped directly to job sites will not be packaged. Ceco Steel Products Corp., 5601 W. 26th St., Chicago 50, Ill.

INSECTICIDAL PAINT
Dianol insecticidal oil paint, especially recommended for interiors of closets and cupboards where food is handled or stored. Compounded with Rothane D-3 insecticide, it kills ants, flies, roaches and other household insects. Harmless to pets and humans. High quality, one-coat paint. Dianol, P. O. Box 908, St. Petersburg, Fla.

LINOLEUM TILE
Marbleized standard-gauge linoleum tile can be installed economically. Nine complimentary colors include blue, green, red, yellow, gray, brown, black, white, and red and black overtones on white field. Flexible, easy to handle, and can be trimmed or cut with shears or linoleum knife. Simple to replace. Can be installed over any suspended floors in the house, but not recommended for basements or on-grade installations. Packed in quantities of 120 tiles to a box. One box will cover 7 1/2 square yards of floor space. Sloane-Blabon Corp., 295 Fifth Ave, New York, N. Y.

GAS WALL HEATER
Royal Model 202 recessed gas wall heater incorporates special louvers. Air is drawn in through lower louvers, heated, and quickly circulated out into the room through upper louvers. Heat is directed out, rather than allowed to rise up. Economical to operate, safe, easy to light. Standard Royal interchangeable radiants are used. Therefore, replacements are easy to get. A.G.A. approved for use with natural, manufactured, and all LP gases. Chattanooga Implement & Manufacturing Co., Chattanooga, Tenn.

METAL SAWHORSE BRACKETS
New Jiffy Sawhorse Brackets enable carpenters and builders to set up sawhorses on the job without use of nails, screws, or bolts. The formed steel brackets permit ordinary 2x4's to be used for legs, and 2x4's, 2x6's, 2x8's, or 2x12's for the crossbar. Can be assembled or disassembled on the job. Brackets are zinc-plated. Grand Haven Stamped Products Co., Grand Haven, Mich.

PORTABLE SAW MILL
American Porta-Mill is fully portable saw mill with production abilities of large, standard mill. Can be dismantled in the morning, loaded on 1/2-ton truck, moved to another location 50 miles away, be set up and sawing wood that evening—and this accomplished by four men. Has 34-inch headblock opening, 10-foot carriage, 3-inch belt feed works, roller bearing mandrel. American Saw Mill Machinery Co., Hackettstown, N. J.

CABINET FOR BLUEPRINTS
Here is a way to file blueprints without wrinkles, crease or curled edges. The Draw-In-Dex cabinet. Accommodates 1,000 prints. Index file locates the prints instantly, and in so doing does not disturb other prints in the cabinet. Height of cabinet 4 feet. Width, 2 feet, 6 inches. Depth, 20 inches. Eighteen gauge steel top, 16 gauge reinforced steel sides. Colors Gray, green, brown (mahogany). Empire Development Corp., 52 Broadway, New York 4, N. Y.

WOOD PRESERVATIVE
Tremco wood preservative, double-action treatment, prevents wood from rotting and keeps moisture out. Reduces possibility of shrinking and warping of wood, and provides easier painting surfaces. The Tremco Manufacturing Co., 8701 Kinsman Rd., Cleveland, Ohio.

CONCRETE BLOCK EQUIPMENT
Ford equipped block plant includes Ford concrete block machine, conveyor and mixer. Simple in construction, designed to last for years. Makes standard 8-inch block weighing 37 pounds that meets A.S. T.M. specifications. Three men can oper-
FOUR TOOLS—ONE MOTOR AB3944

Four electric woodworking machines offered by this firm can be powered by the same interchangeable power unit. Tools are high-speed router, pedestal shaper, planer and, door-latch planer. Speedmatic plane is shown here. Machines are also available individually with their own integral motors. Variety of templates and 130 different bits and cutters are included in line manufactured by firm. Power unit contains full one h.p. Universal motor with oversize oil-seal bearings and automatic adjusting end-thrust bearing. Portable Cable Machine Co., Syracuse 8, N.Y.

PLASTIC FLOOR FINISH AB3945

Floor-coating material for wood, metal or concrete becomes part of the floor, penetrating into the surface as applied. Makes floor easy to clean, brings out their natural beauty. Applied with damp cloth, material makes hard, glossy finish. Contains retardant qualities. Resists acids and alkalis. Minnesota Plastics Corp., Pipestone, Minn.

GAS FLOOR FURNACE AB3939

Superior gas furnace is suitable for installation in homes, churches, schools or offices. AGA approved for natural, manufactured and L.P. gas. Furnace is self-contained unit. Fits directly below floor between joists, eliminating need for heating pipes and ducts. Manual or automatic, equipped with 100 percent shut-off automatic, safety pilot control. Draft diverter ing or semi-recessed types of installations. Painted inside and out with neutral shade primer. Special fastener provides easy removal of cabinet front. Chain damper control operates from front of cabinet. United States Radiator Corp., 300 Buhl Building, Detroit, Mich.

PORTABLE COMPRESSOR AB3903

O.K. compressor 5500 weighs 950 pounds with skid mounting, 1,100 pounds with trailer mounting. Delivers 60 cubic feet of free air, and can easily be towed or carted. Innovation is use of Ford motor and standard automotive parts, which may be obtained at any United

HEAVYWEIGHT SHINGLE AB3905

"Architect" is name of massive-appearing asphalt shingle with triple coverage. But thickness approximates slate. Three blends and three straight colors, giving wide range of selection. Entirely different character because of unique texture of coarse granules. Weight per square, 292 pounds. It is 15-inch 3-in-1 strip, laid 5 inches to the weather. Bird & Son, Inc., East Walpole, Mass.

STEEL BATHTUB AB3923

The "Ohio" formed steel bathtub has either right-hand or left-hand outlet. Overall length is 5 feet for recessed installation. Same roomy bathing area as other conventional baths. From floor to rim, 151/2 inches. Rim is 51/2 inches wide, providing comfortable seat. Raised, tilting ledge at back and ends prevents seepage of water bathing wall. Chromium-painted finish: standard with easy operating Dial-ese controls. Crane Co., 836 S. Michigan Ave., Chicago 5, Ill.

LIGHT ACOUSTICAL TILE AB3941

Lightweight perforated acoustic tile, of compressed glass fibers, is noncombustible, high sound-absorbing properties, excellent thermal insulation value. Weight approximately 7/10 pound per square foot. Can be cemented to solid backing or mechanically mounted on wood or metal furring strips, or on suspended ceilings. Unaffected by humidity conditions. Owens-Corning Fiberglas Corp., Toledo, Ohio.

ELECTRIC WATER HEATER AB3929

Modern automatic electric water heater has rugged tank designed to withstand high-heat pressure of 300 pounds per square inch. Water is heated by either one or two heating elements, thermostatically control. Tank completely surrounded by heavy insulation. Supplies 150 degree water. National Electrical Manufacturers Asscn., 155 E. 44th St., New York 17, N.Y. (Continued to page 136)
(Continued from page 125)

SMOKELESS FURNACE AB3916 Complete burning action of Smokeator, approved smokeless furnace, saves coal. Smoke particles and gases are drawn down through red hot coals to be thoroughly consumed and provide extra heat. All-steel body construction. Daily ash and clinker removal eliminated. No moving parts to interrupt continuous operation. Wheeling Furnace Corp., Martins Ferry, Ohio.

PIECE CUTTING MACHINE AB3917 Number 62 Cut Master machine cuts off small or large quantities of pipe within the range of ⅛-inch to 2 inches, inclusive. Production: 60 pieces of 2-inch or 150 pieces of ½-inch pipe can be cut off in 10 minutes. Motor is ½-h.p., 10,000 r.p.m. Universal, variable speed, geared head type for light socket operation. Effort of operator is reduced to minimum by feed screw mechanism. Weight, 225 pounds. Can be furnished mounted on steel stand. Oliver Manufacturing Co., 2057 E. 61st St., Cleveland, Ohio.

COMBINATION TACKER AB3909 Combination of modern tacker with swing-type jaw and channel cleaner. Design provides for instant disassembly and assembly, without tools of any kind, by pressing down cap of tacker and swinging out jaw with one operation. Tacker may be serviced on the job, without necessity of sending it back to source of supply for servicing. A. L. Hansen Manufacturing Co., 509 Ravenswood Ave., Chicago 40, Ill.

MOTOR GRADER AB3933 The 50-3 motor grader weighs 19,042 pounds, has a 78 brake h.p. General Motors two-cycle Diesel engine, and has the power to move capacity loads at increased speeds. Unit injection, four-way cooling and readily available engine parts that are interchangeable with all other General Motors “71” series engines make for economic field and shop service. Allis-Chalmers Manufacturing Co., Tractor Div., Milwaukee, Wis.

BATHROOM ACCESSORIES AB3911 Chromesmith projecting type bathroom accessories eliminate the set screw. Slip-on method of attachment involves offset washer principle, permitting the accessory to be slipped on back plate and to grip the post like a vise. No set screw needed to clamp accessory to back plate. Back plates are rectangular shaped, providing square corners to prevent accessor from twisting, turning, or slipping. Design of Chromesmith line discards conventional hexagonal shape, presents simplicity, with a sculptured look that is appealing to the eye. E. C. Smith Manufacturing Co., 1515 N. Artesian Ave., Chicago, Ill.

HAND LEVEL AB3938 Hand level for preliminary engineering and construction surveys of all types has level vial inside. Adjustment is pre-set and maintained by spring tension, regardless of rough handling. Prism lens mounted in sturdy, one-piece frame, preventing change of adjustment due to movement of these parts. Delivered complete in leather case with belt loop. May be carried easily in shirt pocket. Brunswick Instrument Co., 1405 Walnut St., Kansas City 6, Mo.


CONCRETE VIBRATOR AB3921 Mighty Midget Universal electric one-man short-coupled vibrator has loop handle with built-in switch, 15-foot cord and plug, patented Hi-Kik vibrator head with revolving off-balance weight feature for powerful vibration. Vibrator head tip is armored with hard wearing rod metal to resist abrasion. Motor operates on 115 volt, AC/DC current; Mall Tool Co., 7740 S. Chicago Ave., Chicago 19, Ill.

ALUMINUM DOORS AB3922 All-etched aluminum doors finished in Alumite, Standard sizes, 3x7 feet and 3 feet, 6 inches by 7 feet for single doors, and 5x7 feet and 6x7 feet for pairs, with transoms available if desired. In-stock doors are equipped with modern door bars and choice of butts or floor pivots. Rush resistant, adaptable and enduring. Newman Brothers, Inc., Cincinnati 3, Ohio.

FLOOR FINISHER AB3925 Interchangeable brushes and attachments for scrubbing, waxing, polishing, steel working, disc-sanding and rug-shampooing are incorporated in new line of floor maintainers. Three new models are designed and fabricated for dependable performance, noiseless operation, ease of handling, speed, low initial and upkeep cost. Floor maintainers feature heavy-duty, repulsion induction motors with ample power to handle rated brush speeds. Granite Sanding Machine Co., Muskegon, Mich.

CHECK NUMBERS AND MAIL COUPON FOR INFORMATION

American Builder, 105 West Adams Street, Chicago 3, Illinois

NAME ___________________________________________ ADDRESS ____________________________________________________________

CITY ______________________________________ STATE __________________

AB3901 AB3902 AB3903 AB3904 AB3905 AB3906 AB3907
AB3908 AB3909 AB3910 AB3911 AB3912 AB3913 AB3914
AB3915 AB3916 AB3917 AB3918 AB3919 AB3920 AB3921
AB3922 AB3923 AB3924 AB3925 AB3926 AB3927 AB3928
AB3929 AB3930 AB3931 AB3932 AB3933 AB3934 AB3935
AB3936 AB3937 AB3938 AB3939 AB3940 AB3941 AB3942
AB3943 AB3944 AB3945 AB3946 AB3947 AB3948 AB3949

When you address inquiries direct to manufacturers concerning a new product described here, please mention that you saw it described in American Builder.
When it's a heavy duty job—

You're right with Ro-Way

A long life of smooth, easy, trouble-free operation. That's what you want in overhead type doors for Commercial or Industrial applications.

That's what you get when you specify Ro-Way.

As an example of the careful engineering of every Ro-Way Door to the requirements of the job—here is how we build all Ro-Ways of 200 sq. ft. area or more. We use heavy duty 3" wide track, 2¾" ball bearing track rollers with double-thick tread, and spring hook-up of two or four power-metered springs. U-Bar stiffeners or U-Bar trusses add extra strength to sections. Extra heavy bottom rails, meeting rails, end stiles and muntin bars mean extra ruggedness for long life.

Complete fabrication in Ro-Way's own plant means Ro-Way uniformity, Ro-Way quality, Ro-Way dependability through and through.

That's why you're always Right with Ro-Way. For Commercial, Industrial or Residential applications, specify Ro-Way Overhead Type Doors—and get what you want, every time.

There's a Ro-Way for every Doorway!

ROWE MANUFACTURING COMPANY  •  748 Holton Street, Galesburg, Illinois, U. S. A.
How to Apply Sheathing With Less Waste of Material and Time

A SOURCE of wasted material, needless work, and lost time, occur in the old method of sheathing frame buildings with the usual "roofers," or tongue and grooved boards. These can be either six or eight inches in width.

As usual, the boards, often 16 feet long, are sawed off so that the ends may be nailed on half the width of a stud. This is known as "breaking the joints on the studs." Each board then uses half a stud, a width of only 13/16 inch, into which two or three 8d nails are driven. This means that nails are driven within 3/8 inch of the end of each board. It also means that the sheathing is not securely attached to the stud at this point, and the stud is weakened by having four to six nails driven into it at that point. In order to break these joints on the studs, as shown herewith, many valuable pieces of eight inch tongue and groove sheathing are sawed off and wasted. In addition, time is lost by measuring, marking and cutting the boards.

When tongue and groove "roofers" are securely driven up and nailed, then each course of sheathing interlocks with the other, both above and below. With studs spaced 16 inches on centers there is no place in the 14 3/4 inch space between studs, where deflection takes place in the sheathing.

A considerable saving is affected when using up to eight inch tongue and groove sheathing, in squaring off the ends, or leaving them as they come from the mill, if they are reasonably square. Then it is only a matter of butting the ends together wherever the joints may come, relying on the tongue and groove of the piece above and below to hold the sheathing tight.—Erwin L. Schwatt, Atlantic City, New Jersey.

A Combination Grade Beam and Termite Shield

AFTER forms are placed in position for pouring of concrete, a continuous 2 x 4 inch grade beam with metal termite shield attached is secured to the inside face of top of form. The top of concrete wall is floated flush with imbedded grade beam. After forms are stripped the termite shield is pulled out diagonally into position and the mud-sill is nailed to the 2 x 4 grade beam. In this manner anchor bolts for securing mud-sill to concrete is eliminated. Grade beam is secured with imbedded 20d nails.—Max Sorensen, Dallas, Texas.

A Simple Method for Bending Reinforcing Rods

THIS is a jig for bending reinforcing rods. Cut a six foot length of a 2 x 6 in the center. Place two hinges on top side where the pieces come together. Bolt two metal brackets on "A" length close to hinges. Drill holes in brackets so small rod can be slipped into position. Lay reinforcing rod on 2 x 6 between two wood guide strips that have been nailed in place. Stake "A" part of jig to ground. Place reinforcing rod between guide strips and under metal rod in bracket. "B" part of jig can then be raised, bending rod.—Batsell Moore, Waco, Texas.

(Continued to page 130)
MAKE MORE MONEY PER JOB
WITH THE FASTEST FLOOR SANDER AND EDGER!

THE NEW CLARKE S-8 FLOOR SANDER
Accurate, smooth; effortless operation at lower cost! Sands 3,200 square feet of floor per minute...an amazing speed that far surpasses any other machine of comparable drum size. Its powerful 13/4 h.p. motor drives the 7¼ inch diameter drum at 1,800 r.p.m.
Ruggely constructed to withstand severe usage under all operating conditions.

THE NEW CLARKE V-7 EDGER
Fast cutting, smooth operating, powerful! Guaranteed outstanding performance, durability and low cost operation. Designed especially for contractors and builders.

Floor Maintainers to Disc-Sand, Steel Wool, Polish, Wax, Scrub and Shampoo

SEND THIS COUPON FOR COMPLETE INFORMATION

CLARKE SANDING MACHINE COMPANY
553 Clay Avenue, Muskegon, Michigan

Send Complete Information
Arrange Demonstrational

New Clarke S-8 Floor Sander
New Clarke V-7 Edger
The Clarke Floor Maintainer

NAME
STREET
CITY
ZONE
STATE
New Type Gable End

Replacing the series of moldings that normally constitute the cornice, are the one inch thick members that pyramid one over the other along the rake of roof. This cornice is composed of a series of flat surfaces, each with a two inch face exposed: the projection being the thickness of the material. To build, start with a 1 x 4 with filler extending to roof line, followed with a 1 x 6, 1 x 4, and 1 x 2 respectively.—Emanuel C. Mettler, Menno, So. Dak.

How to Make a Top-Nailer's Dolly

The use of a dolly of this type will ease the job of top-nailing a sub-floor. This dolly is made similar to the kind that floor men use to machine-nail oak flooring. Chest casters are secured firmly to the underside of a plywood base. An extended piece of plywood secured to the base, provides a seat for the nail pouch. The nail pouch is formed of canvas stretched over a wire frame. Seat of canvas or other material is placed on plywood base for convenience of worker. This dolly has a holder for 8d nails, and has proved to be a labor-saver.—J. G. Caldwell, San Mateo, Calif.

A Simple Method for Hauling Lumber

Transporting long lengths of lumber on a pick-up truck often presents problems. Here is an idea that works.

By placing lumber under the support bar that is provided across front portion of truck body, long lengths of lumber may be hauled without difficulty. If the lumber hangs too low at rear of truck, this condition may be overcome by twisting tail-gate chains sufficiently to raise gate to the desired height.

Support bar should be placed 12 inches from front of truck box, and 3½ inches from truck box floor. This permits space in front of bar for a tool box when not hauling lumber. The position of the bar allows ample room for four pieces of 1½ inch stock, or two pieces of 1½ inch members, or a single section of ladder.—Myron G. Miller, So. Williamsport, Pa.

How to Stretch Metal Lath on Ceilings

Difficulty is often experienced when attempting to tightly stretch metal lath on ceilings. The following suggests a way this can be very easily overcome. Hold a large piece of metal lath in the center in position against the joists. Allow the sides of the lath to drop, as shown in the illustration. Then nail the sheet across the center. Stretch the lath on joists and extend the nailing from the center out to the edges. This leaves the lath tight without tugging or pulling.—Myron G. Miller, So. Williamsport, Pa.
The BELL Prime Mover

- eliminated cars, track, and skip hoist on tunnel job at Wright Field

VEST & BARTELL, Cincinnati contractors have discovered that Prime Movers not only save time and manpower, but frequently substitute for costlier equipment. This was clearly demonstrated on a 4'x 5' rock tunnel beneath the gun range at Wright Field. Here Prime Movers functioned right in the tunnel itself, hauling broken rock out of the tunnel and up a steep ramp to the surface, and from there to a disposal dump several hundred feet away.

FEATURES:

- gear driven . . . no belts or chains
- fully enclosed engine protected against dirt and moisture
- clutch, engine, transmission all run in oil
- switch from bucket to platform without tools . . . in less than a minute
- turns in its own length (63½") width 31½"
- 3-gallon tankful of fuel gives 8 hours continuous service

A PRODUCT OF BELL Aircraft CORPORATION

Combining the features of a giant motorized wheelbarrow, a 9- or 14-square-foot platform truck, and a powerful snow plow, the Bell Prime Mover is an ingenious answer to the problem of cutting costs and reducing labor on construction projects.

With Prime Movers on the job ... pouring concrete and doubling the productive capacity of wheelbarrow or "buggy" gangs . . . work can be expedited on almost any job. You can take some of the guesswork out of figuring labor costs, for Prime Mover savings provide a cushion against increased labor rates.

All of these facts can be proved conclusively by an on-the-job demonstration. It took only half an hour at one of these demonstrations for a contractor to sideline six concrete buggies in favor of two Prime Movers on a 160-yard pour. Two men finished the job in 7½ hours.

If you would like to see a Prime Mover . . . or a "fleet" of them in action, we'll gladly make the arrangements. For more information, please attach this coupon to your letterhead and mail it to us at once.

**SEND COUPON NOW**

Bell Aircraft Corporation
P. O. Box 1ARS, Buffalo 5, N. Y.

Please send me facts on the Bell Prime Mover. Who is the nearest distributor?

Name

Address

Company

City, Zone & State
How to Make an Adjustable Roof Jack

This roof jack was made by a shingler. It can be used on any pitched roof, cannot slip and does not split the shingles.

Boards 1x8x10 inches long are used for top and bottom. These boards are hinged together at top end. A 1/4 inch piece of plywood is hinged to lower end of top and bottom piece. Quarter inch holes are drilled one inch on centers on face of plywood. Insert 3/16 inch bolt through plywood. This is to be held in place with wing nut when jack has been adjusted to roof pitch. Six light hinges are used in the construction. Four beer can openers bolted to underside of 1x8 inch board hold jack securely in place. J. G. Caldwell, San Mateo, Calif.

Pipe Bending Form

On a job where a great deal of pipe bending is required, such as a radiant heating installation, a special bracket welded to a leg of the fitting bench will save much time. Weld a short length of a 12 inch diameter pipe to the bench leg, as shown in illustration. A short section of 2 inch diameter pipe is welded to lower portion of larger pipe. The small pipe is slotted for use when inserting the pipe to be bent.

By inserting one end of the pipe to be bent into the socket formed by the 2 inch sleeve, the pipe can then be bent to any desired number of degrees around the 12 inch pipe by applying force to the other end of pipe. Where short sections are to be formed, a "cheater", or sleeve of pipe can be slipped over the one to be formed to act as a lever. Elton Sterrett, Houston, Texas.

How to Set a Tile Sill

This is an easy way to be assured, when setting tile sills for windows, that the sash will work properly.

Place building paper on the inside face of window sash where tile and cement contact the sash surface. Drive a six penny nail temporarily between parting bead or stop and the outside face of the lower part of sash. Place tile sill in the usual way. After sill has set remove building paper and nail after raising sash. This method will provide ample clearance between tile and wood. J. G. Caldwell, San Mateo, Calif.

Bathroom Scale Cabinet

For use in bathrooms of minimum size. The built-in wall cabinet provides space for scale where it can be put out of the way when not in use, and yet be made available immediately.

The cabinet is placed in the wall between studs and close to the floor line. Door is hinged at bottom with continuous piano hinge. A bar handle placed at upper rail extends across the full width of door. The bar rests on floor when door is open, thus giving stability when scale is in use. The scale is fastened permanently to the door. A. F. Taggart, Monrovia, Calif.
GET THIS FREE New Booklet!

In one of the most comprehensive studies ever made on color applied to roofing... Flintkote helps explain to your clients how to put Nature's colors to work... with roofs that are DAYLIGHT ENGINEERED!

Don't be without this authoritative color study. You'll find it a great help toward crystallizing clients' desires in roof selection.

This new booklet helps you point out to clients the importance of exterior decoration... and the ease with which a roof can be selected to be just right with the natural surroundings of their homes. It explains the natural principles behind Flintkote's exciting new concept, DAYLIGHT ENGINEERING.

Sure, it recommends the specification of Flintkote Asphalt Shingles. Why? Because we earnestly and honestly believe you can't buy a better asphalt roofing material.

Get your copy of this interesting, helpful booklet. You'll find it a mine of useful information. Mail the coupon now for your free copy.

THE FLINTKOTE COMPANY, Building Materials Division 30 Rockefeller Plaza, New York 20, N. Y.

Gentlemen:
Please send me at once, my free copy of "Putting Nature's Colors to Work."

Name
Address
City State
TECHNICAL GUIDE
for Builders and Craftsmen

How to Build a Grapestake Fence

GRAPESTAKE fences are attractive but hard to build. Due to their unevenness it is hard to get them to look plumb. This suggestion will help to correct that condition.

After the posts and cross rails of the fence are set in place, then use the steel square to mark the top rail 16 inches on centers. Plumb these marks down to the bottom rail. Nail the first picket on rail even with the 4 x 4 inch post. Then nail five more pickets on top rail only. Plumb up the sixth picket by nailing parallel to the mark on the bottom rail. With this as a guide, nail the other pickets on the bottom rail. Proceed with balance of rail in same manner. J. G. Caldwell, San Mateo, Calif.

How to Fit Siding Between Exposed Siding

TO MAKE a perfect fit with the last piece of siding or weatherboard, try the following method.

First, obtain the correct length of the siding and cut it off squarely on either end. Hold the siding up against the underside of rafters and make two pencil marks on the upper edge of the board to correspond with the width of the rafters. Mark the rafters in sequence as shown in the sketch and also number the marks on the siding in like manner. Take a scrap piece of siding, hold it against the rafter so that the pencil mark can be made on the edge. Take a different piece of siding for each rafter. Transfer these marks to each corresponding number on the siding to be put in position, holding the lip of the scrap even with the siding. Use a fine toothed saw and chisel to make the notches and the last piece of siding will fit perfectly regardless of conditions.

H. E. Fey, New Braunfels, Texas.

How to Build a Canopy for Commercial Buildings

THE TYPE of canopy herein described can be applied primarily for use on small commercial buildings.

Assuming a total span of 20 feet for the building, a steel beam is placed midway or ten feet from the front wall; 2 x 4 ceiling joists are then placed in position. The sizes of timbers would, of course, vary with the increase in span.

By placing the joists at a right angle to the front wall, it permits the 2 x 4 canopy struts to be tightly secured to the joists. Concrete beam placed in wall at canopy level further anchors the canopy struts in position.

To make proper preparations for supporting canopy, the process of work in building wall should be as follows:
1. Lay concrete blocks to underside of ceiling joists.
2. Place joists and struts in position.
3. Pour continuous concrete beam.
4. Continue laying blocks for parapet.
Ed Grabowski, Toledo, Ohio.

(Continued from page 132)
This bathroom panel is able to resist the ravages of excessive moisture condensation because it is made of Insulux Glass Block.

For bathroom beauty that lasts...

Insulux Glass Block

The condition of high humidity found in any bathroom is one of the many problems solved by a lustrous panel of Insulux Glass Block.

Insulux is impervious to moisture—it does not rust, rot or corrode. No painting is needed. These advantages, combined with the inherent ability of certain Insulux patterns to transmit plentiful daylight while furnishing privacy, make it an ideal material for your new homes.

Furthermore, Insulux Glass Block has thermal insulation value approximately equal to an 8" brick wall—to provide greater comfort and reduce condensation inside. Maintenance is reduced to a minimum.

Investigate the advantages of Insulux Glass Block in home construction. Send coupon today!

MAIL TODAY

AMERICAN STRUCTURAL PRODUCTS COMPANY
Dept. F-2, P.O. Box 1035
Toledo 1, Ohio

Gentlemen:
I am interested in applications of Insulux Glass Block in home construction. Please send me additional data.

Name________________________
Address______________________
City_________________________ County_________ State_________
TECHNICAL GUIDE
for Builders and Craftsmen

(Continued from page 134)

How to Cut Shingles To Fit Roof Lines

MAKE A JIG of 3/4-inch thick plywood. Nail a 1/2 x 1 1/2 inch straight-edge on the bottom edge and both ends. Mark the degree of pitch required for cutting by placing a nail on each end of straight-edge. Place nails to conform to the angle of the cut. Place a straight-edge against the nails and draw a pencil line across the face of the shingles. By using this method you avoid mistakes and speed up the job of laying shingles. Submitted by J. Chegwidden, Portland, Ore.

How to Stretch Wires to Batter Boards

DRIVE a 16-penny nail about one-third of the way into the batter board that is securely fastened, then bend the nail over about one inch below the head. Pull the wire up tight by hand, then wind it around the nail. With a pair of pliers or hammer claws, grip the part of the nail which was bent over. By turning the nail it is simple to stretch the wire very tight. If the wire should become loose by someone tripping on it, or some object falling on it, a few turns of the nail will make it tight again. RALPH W. SETTLE, Mexico, Mo.

How to Locate Studs After Plaster Is Applied to Walls

AFTER the plaster base is applied to walls, and before plastering is started, drive large-headed roofing nails partially into the subfloor. The nails are placed in front of every stud about an inch away from the wall.

The nails are the means of locating studs when nailing baseboards in place. If the finished floor is laid before the baseboard, then it will be necessary to re-locate the studs by placing a chalk or pencil mark on the plaster. Submitted by Harold Kragness, Canby, Minn.

Details Enhance Small Home Designs

By R. J. Alexander

A SINGLE detail, such as a bay window or a front entrance, can change the entire appearance of a house. These minor details, if properly designed and scaled to the size of the building, can add character and a feeling of individuality to an otherwise uninteresting elevation.

The living room bay, detailed on the opposite page, is straightforward in design and simple in detail. A point of interest is the clear glass area, free from wide wood corner millings or posts. Warm red brick for the lower portion of the bay will contrast pleasingly with the painted siding or shakes of the main portion of the house. If required, storm sash may be installed in the bay or the large center sash could be designed to take a standard size double insulated glass.

Iron columns of a stock pattern could be used effectively at the front entrance. The entrance roof, like the bay ceiling and cornice, is self-supporting and the columns could be put in place when the house was nearly completed. Provision should be made for anchoring the columns to the concrete stoop.

Red cedar shingles are specified for the roof. Thick butt asphalt shingles could be used if the roof boards were laid solid.

Particular care should be exercised in building the footings under entrance and bay. The footing walls should be bonded or tied into the main foundation wall to insure against any settling or separation.

This detail is applicable to any small house design. (Continued to page 150)
AMERICAN BUILDER'S BETTER DETAIL PLATE

No. D. 52. Entrance & Bay of Unusual Design

Section thru entrance

Wood shingles
Roof boards
2" x 6 rafters

2" x 4 rafter
1 1/2" x 3/4" cut-out
1 1/8" x 3/4"

Stationary sash

Coat closet

Entry

ENTRY

Soffit detail
Cornice & entrance ceiling

Metal joint strip

Glazed door

Iron posts
Concrete stoop and steps

Plan of entrance & bay

Elevation of entrance & Bay

Metal corner bead

Note: wide or narrow stool may be used as detailed.

Detail B of stool

Not to scale

Section thru bay

Plan of bay
is the perfect Sash Balance for all double hung windows. It has a variable spiral rod that slides through a slotted bushing which is fastened to the end of a torque spring.

FITS in a groove at the edge of the sash. Simple to install because it is fastened on the surface of the jamb to suspend the sash to slide freely up or down; and retains the sash in any position.

DOES excel in mechanical principle because all working parts are encased in a tube. It provides a weather-tight installation and affords the use of modern, narrow-line trim and narrow mullions.

OUTLASTS the life of a building with its rust-proofed galvanized tubing, oil tempered coiled (torque) spring, hard dye-cut white metal bushing, rust-proofed steel spiral rod and rust-proofed metal sash attachment.

Plants in Canada, Australia, England and the United States.

Unique SASH BALANCES

UNIQUE BALANCE COMPANY
Inc.
25 BRUCKNER BOULEVARD
NEW YORK 54, NEW YORK
Better Homes & Gardens

is selling these

BUILDING PRODUCTS

in January, February and March
These Editorial articles

- Desk-table-cabinet the unhandy man can build
- Designed for air conditioning
- Well planned for a narrow lot
- All kinds of windows
- Help yourself to better-looking bookshelves
- Radiators can be attractive
- How to fasten two boards together
- How-to for the handy man
- Remodeling—the best way to get a home
- Floor-length windows
- Put empty corner space to work
- Living-room corner designed for relaxing
- How this room grew
- This month’s Five Star home
- Color-style your home
- Fit your lot to your needs
- We built our house on weekends

Note the titles of those articles. They’re another example of Better Homes & Gardens’ 100% service on better living in better homes. No side lines, no fiction. Better Homes & Gardens is addressed entirely to husbands and wives whose big interest is the home — and who have the money to meet the high living standards that BH&G takes for granted.

No wonder the readers of Better Homes & Gardens relish every page of every issue!

It’s the one magazine that gives them 100% real service in editorial and advertising pages alike. Take a look for yourself. Better Homes & Gardens editorials and ads cover the same subjects, so readers find them equally interesting. In fact, when BH&G editorial titles and advertising headlines are isolated on a list, most people can’t tell the difference between the two!

Single-minded, 100% service like this screens out the casual reader — screens in the 3,000,000 husbands and wives who read BH&G solely for suggestions, ideas, information. It doesn’t matter to them whether the facts they want come from an editorial or an ad, because both are on the same side of the street in BH&G.

The result? BH&G sells and sells and sells — to a pre-screened, multi-million audience that no manufacturer can afford to overlook.
### AIR CONDITIONING & HEATING
- Aerotemp Fans
- American Radiator
- Anderson Fireplace Forms
- Bell & Gossett
- Burroughm Portable Chimney
- Crane
- Dust-Stop Filters
- Everhot Portables
- Flexseem Fireguard Screen
- Fresh-Aire Fireplace Forms
- Fresh-Aire Fireplace Screen
- Gardner Radiator Enclosure
- Hancock Fireproof Form
- Heatform Fireplace Form
- Heatilator Firewall Form
- Honeywell Controls
- Justool & Radiator Mfg.
- Janisol
- Kastone
- Oik-Marine
- Petro
- Peerless Fireplace Form
- Stewart Exhaust Fan
- Trane
- Waterbury

### APPLIANCES
- Admiral Refrigerator
- Bissell Sweeper
- CP Gas Ranges
- Cadillac Vacuum
- Calvin Gas Range
- Coeather Homefix
- Coeather Refrigerator
- Eaton Washer
- Everhot Appliances
- Florence Gas Range
- Fridgidaire Range
- Fridgidaire Refrigerator
- General Electric Dishwasher
- General Electric Disposall
- General Electric Lightbulbs
- General Electric Range

### HARDWARE
- Duco Cement
- Durall Aluminum Tension Screen
- Durham's Rock Hard Water Potty
- Hall-Mark Bathroom Accessories
- Home-Utility Tools
- Judd Drainage Fixtures
- Keystone Wire
- Kruse & Vogt Closet
- K-Venices
- Laminate Screen
- Nichols Never-Stain Nails
- Paper Fence
- Plastic Wood
- Pyrene Fire Extinguisher
- Quick-Aid Fire Extinguisher
- Smooth-On Cement
- Speedy Sprayer Paint Gun
- Three-In-One Oil
- Yale Trim

### INSULATION
- Armstrong Torch Splatter
- Baldwin Wood
- Chamberlain
- Eagle-Fisher Fiberglass
- Gold Bond
- Homaset
- Insu-Cotton
- Johns-Manville
- Kimeul
- Nu-Way Weather Stripping

### KITCHENS
- American Kitchen-Kraft
- Kitchen Maid
- Youngstown Kitchens by Mullins

### MILLWORK & LUMBER
- Andersen Windowalls
- Arkansas Soft Pine
- Chamberlain Windows
- Crawford Doors
- Curtis Woodwork
- Eagle-Fisher Windows
- Masonite Preadwood
- Mingle Flash Doors
- Pella Roller Doors
- Penn-Tech Pines
- R. O. W. Windows
- Rapido Windows
- Sash Aluminum Casement
- Siemens Cabinet Shutters
- West Coast Woods
- Western Pines
- Weyerhaeuser Services

### PAINT & RELATED PRODUCTS
- Alpena
- Alva Pigments
- Cabot
- Caprolon
- Imperial Wallpaper
- Knauff
- Lino-X
- Martin-Stein
- Masonite
- O'Brien
- Penta
- Pittsburgh
- Sherwin-Williams
- Truecon

### MISCELLANEOUS
- Acme
- Alpena Novelty
- Cabinet
- Carolin
- Cranfield
- Imperial Wallpaper
- Kramer
- Line-X
- Martin-Stein
- Masonite
- O'Brien
- Penta
- Pittsburgh
- Sherwin-Williams
- Truecon

Better Homes and Gardens
Circulation over 3,000,000

Serves...
so it Screens...
so it Sells
America's First Service Magazine
BIG SALES ASSET IN HOMES
H.C.LITTLE-THE SELF LIGHTING OIL FLOOR FURNACE

You'll be amazed at the magic sales appeal...

... of H. C. Little, the only oil floor furnace that AUTOMATICALLY LIGHTS ITSELF, with 100% electric ignition and control. NO PILOT LIGHT to waste oil. NO matches, no fuss, no muss. Just carefree comfort without attention, around the clock!

The homes you're building can have this feature—AT SURPRISINGLY LOW COST!

WRITE for new 6 page, 4 color, illustrated brochure A-3 FREE

H.C.Little Burner Company
FACTORY REPRESENTATIVES IN 18 PRINCIPAL CITIES
SAN RAFAEL, CALIFORNIA

Catalogs and HOW-TO-DO-IT INFORMATION

Information on any of the printed matter listed here will be sent FREE on request. Please use coupon on page 144

517—STANDARD ALUMINUM ARCHITECTURAL SHAPES—by Reynolds are detailed in new portfolio issued by Reynolds Metals Co., 2500 S. Third St., Louisville, Ky. For increased value to architects, engineers and builders, drawings are on standard 8½x11-inch sheets for filing purposes. Cross sections printed black in actual size, full scale.

518—PANEL RADIANT HEATING—Twenty-page catalog describes history, engineering and installation methods for this system of heating. Well-illustrated, including several detailed drawings, the catalog is issued by Mueller Brass Co., Port Huron, Mich.

519—A COMPLETE WOODWORKING SHOP—in itself is the statement made by The Master Woodworker Manufacturing Co. about the "Master." It is not just a saw rig, but a combination of twelve machines in one, performing practically every woodworking operation with speed and accuracy. The machine is described with illustrations and specifications in a brochure issued by this firm. The machine is made in five sizes. It has gasoline or electric power.

520—FACTS ABOUT CONVECTOR RADIATION—are graphically presented in a 6-page bulletin No. 249-A issued by the Modine Manufacturing Co., Racine, Wis. Cutaways, photographs and drawings show different types of convector heating installations with accompanying explanations of how they work.

521—GUIDE BOOK FOR SPECIFYING INTERIOR METAL TRIM—offered by the Inland Steel Products Co., Milwaukee, Wis., includes illustrations of complete line of Milcor Metal lath and accessories. This 51-page catalog, No. 101, contains numerous drawings and photographs showing styles, dimensions, uses and weights.

522—"FLOORS THAT ENDURE"—14-page, 4-color catalog includes design ideas for the application of asphalt tile. Installation diagrams and illustrations of various uses are shown. Publisher is the Tile-Tex Company, Inc., Chicago Heights, Ill.

523—WEATHER STRIPS, CALKING AND GLAZING COMPOUNDS—Moulding and trim, numbers and letters, and screen door grilles plus many other products are illustrated and discussed in the 1949 catalog issued by Macklanburg-Duncan Co., Oklahoma City, Okla.

524—ENGINEERING MANUAL—for installation and service of Duo-Therm oil-burning furnace. For use of distributors, dealers and their organizations, (Continued to page 144)
Practical planning starts with first quality...

Specify: KOHLER PLUMBING

Nowhere is first quality more important to home-planners than in the bathroom. Good sanitation, practical design, beauty, durability, convenience—these are the satisfactions that go with fixtures and fittings that bear the name "Kohler".

The arrangement shown includes the Chesapeake lavatory, with roomy ledge, made of finest quality vitreous china. Intense firing gives it a lustrous, glass-hard, easy-to-clean surface. The Centra mixer-type fitting, of chromium plated brass, is capably designed, thoroughly tested for performance.

The Cosmopolitan Bench Bath has a base of non-flexing iron, cast for rugged strength and rigidity, and coated with the famous Kohler enamel. The Triton shower fitting with Niedecken mixer is outstanding for convenience and ease of operation. The Wellworth closet, quiet and smooth-acting completes the set, which comes in pure white, and four delicate pastel shades. Kohler quality is now a 76-year-old tradition. Write for further information. Kohler Co., Dept. 1-H, Kohler, Wisconsin.

KOHLER OF KOHLER
PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS
Catalogs

(Continued from page 142)


525—THICKNESS PLANER—Brochure on a 12 x 4-inch thickness planer is offered by the Boice-Crane Co., 966 Central Ave., Toledo 6, Ohio. This power tool is described and illustrated in detail.

526—SAFETY TREADS, THRESHOLDS, SADDLES, SILLS—nosing, platforms, floor plates and trench covers, in all types and sizes for use with any material are described in a 12-page catalog issued by Wooster Products, Inc., Wooster, Ohio. Installation details and illustrations are included.

527—LUMBER PRODUCTS—28-page, well-illustrated catalog issued by Fordyce-Crossett Sales Co., Fordyce, Ark., discusses yard and shed stock, specialties, hardwood and pine flooring, industrial items, creosoted, Wolmanized treated and flame-proofed lumber, and structural material offered by this firm.

528—IDEAS FOR PLAYROOM PLANNING—Selected designs and suggestions to help plan recreation or hobby room for home are presented in a 20-page, illustrated catalog issued by The Heil Co., Milwaukee 1, Wis.

529—ROOF TRUSSES—manufactured by the American Roof Truss Co., 6850 Stony Island Ave., Chicago 49, Ill., are illustrated and described in a brochure presented by that firm. Bowstring, Belgian, Crescent and Howe trusses are discussed.

530—MASONRY DRILLS—Spiral-fluted, carbide-tipped masonry drills, manufactured by Super Tool Co., 21650 Hoover Rd., Detroit 13, Mich., are described in literature available from this firm. Sizes, diameters, shank lengths and overall lengths are given. Sets and kits of assorted sizes are also illustrated.

531—A LARGE VARIETY—of architectural aluminum shapes are presented in Catalog No. 48 issued by J. G. Braun Co., 609-615 S. Paulina St., Chicago, Ill. Included in the 34-page catalog are detailed drawings, installation pointers, and dimensions of many kinds of aluminum products made by this firm.

SERVICE COUPON—CLIP and MAIL to CHICAGO

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

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

Numbers

Name

Street*

City State

OCCUPATION*

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

PORTER-CABLE Speedmatic

BALANCED for easier handling!
BALANCED for truer sawing!
BALANCED for variety of cuts!

Here's the Speedmatic Saw that out-classes any portable electric saw on the market today! It feels balanced when you lift it! It's balanced when you hold it! It's balanced when you run it! No other saw compares with it!

TRY THIS SIMPLE TEST

Balance the Speedmatic upside down on its handle (no other saw will do this). Place a full glass of water on the extra-broad shoe. Start the motor. The blade speeds up to 7,000 RPM. But — not a drop of water spills. It's balanced! The weight is balanced . . . the moving parts are balanced. There's no torque twist or jerk. The helical-gear drive runs easily and smoothly . . . delivers 11% more power to the blade.

And the entire saw is so compact, so expertly designed and precisely built, that it's lighter in weight . . . easier to use with one hand . . . for less tiring in a day's work.

MODELS: K-75 (2½" cut); K-88C (2¾" cut); BK-10 (3⅞" cut); BK-12 (4¾" cut).

PORTER-CABLE Machine Co., 1603 N. Salina St., Syracuse, N. Y.
Manufacturers of Speedmatic and Guild Tools
A friendly advisor in labor relations matters for all Home Builders is NAHB's Labor Director. He keeps his finger on the personnel pulse to render better service to the industry.

Maintaining a close, cordial relationship with important government agencies and labor groups, the Labor Director paves the way for firmer understanding and progressive agreements between employer and employee in the residential building field.

When called upon he makes special trips to participate in panel sessions, give informative lectures, lend counsel or negotiate satisfactory bargains to keep the wheels of construction properly lubricated.

Working constantly with NAHB's Legislative and Public Relations Departments, the Labor Director is one of a smoothly coordinated Washington team which stays on the job year round to bring better business conditions for Home Builders.

NAHB means protection for the individual builder in national affairs—plus service and special cost-saving construction data. Membership in NAHB brings benefits to every Home Builder regardless of the volume of his activities. See for yourself how NAHB works for YOU. Send today for the free booklet, "Men, Homes and YOU."
We have — you have — a LIVING PICTURE of a rambling river framed in the wall of this comfortable study. The WINDOWALL is a single Andersen Gliding Window Unit. It functions as a window, by opening up the view and by providing an excellent source of ventilation. Simultaneously it functions as a wall, weathertight and proof against the wintry blasts of a Minnesota winter.

Specification data on ANDERSEN WINDOWALLS is in Sweet's Architectural and Builders' Catalogs, or will be sent by us upon request. See your local lumber or millwork dealer for further information.

*TRADEMARK OF ANDERSEN CORPORATION

Andersen Gliding Window Unit in Sam Buron Home, Pine Bend, Minnesota

Andersen Corporation
BAYPORT • MINNESOTA
A SATISFACTORY “financing” connection has become increasingly important to insulating siding dealers during recent months. It is within this period that lending institutions and FHA have considerably tightened up on the type of loans they will approve, and in some cases, with the kind of dealer whose paper they are willing to consider. This situation was brought about by an alarming increase in the number of delinquencies on loans previously approved—and by all Federal Reserve banks being required to add substantially to their federal reserve bank balances.

Lending institutions are desirous of securing sound lending risks under the FHA program, but they insist on what they consider “reasonable co-operation” from the dealers whose paper they are considering for approval.

E. J. H. Bennett, vice president of the People's First National Bank and Trust Company of Pittsburgh, recently told me, "It has come to our attention that there seems to be some apprehension among dealers in and distributors of property improvement material that financial institutions generally have lost interest in FHA paper.

"I assure you that we are enthusiastically interested in this type of business. We enjoy excellent relations with hundreds of dealers in this metropolitan area who will attest to the fact that we have always indicated that we want as much of this class of business as we can obtain."

The principal complaint of lending institutions, generally, is that many dealers feel when a loan has been approved that he (the dealer) has no further obligation to the lending institution after his Completion Certificate has been turned in. As a result, when the dealer is notified by the banker of a complaint from the home owner of faulty workmanship or material, or that the home owner has given no reason at all for discontinuing his payments on the loan, the dealer ignores the notice and makes no effort to help clear up the difficulty. Lending institutions have told us that dealers who take this attitude in the future will (Continued to page 196)
Coroaire is installed in thousands of new homes. Its spectacular popularity since the war is due to economy for the builder—economy of operation for owners. Operates on all types of gases.

Jump ahead of competition. Plan your building plans with Coroaire.

WRITE NOW! Get the complete details of all the Coroaire benefits for builders.

THE COROAIRE HEATER CORPORATION
1422 Euclid Avenue + Cleveland 15, Ohio

New homes planned with Coroaire are planned for faster selling. The builder finds new economy with this complete system... packaged for fast installation... in modern styling that today's home buyer wants.
DECORATIVE Screen Door GRILLES

Make large or small houses more attractive, easier to sell—with Coffman hand-wrought screen door grilles. The cost is small; the beauty and value added is amazing! And they save the screen, strengthen the frame. Easy to buy, Coffman grilles are available through building supply dealers.

Stock Designs at Low Cost

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.

Stock Sizes for All Doors

Simple to order, just check dimensions of your door and dimensions of inside screen opening. Grilles are available in stock sizes for all stock single panel, two panel and combination storm doors. Information on special sizes sent upon request.

Write Department AB, P. O. Box 259, for free catalog of designs, sizes and prices.

Manufacturers of the Original "Complete Builders Line" of Hand-Wrought Ornamental Iron

How to Install Convectors

This series of pictures shows the step-by-step procedure to follow in installing a modern, recessed-type convector in an office. The final picture shows the finished installation which may be painted easily to blend or contrast with the interior decoration of the office. Many older office buildings are replacing older heating units with modern convectors. Recessing provides heating comfort at no sacrifice of usable floor area.

1.—An accurately dimensioned recess is first provided in the rough masonry wall by the general contractor. Recess dimensions are in strict accordance with recommendations of the convector manufacturer. Holes are provided in the floor to accommodate piping.

2.—Fiber board insulation is now set in place in the rear of the recess to reduce heat loss through the wall to a minimum. The rear half of the convector will be placed against this board.

3.—Supports for wire lath are nailed in place, and ¾-inch ground strips are secured to the wall around the recess. The rear half of the convector is nailed to ground strips. The heating unit is then placed in supporting clips with supply and return tappings above the pipe stubs.

4.—Wire lath is installed around the recess in preparation for plastering. Ground strips project the rear half of the convector forward of wire lath so that the convector front, when in place, will fit snugly against finished plaster. Piping connections are completed, and the air chamber is installed.

5.—The convector front is put in place and securely fastened. Convector can now be operated while other work in the room is completed. The convector front can be removed easily during plastering and painting.

6.—When the installation is finished, projecting edges of the convector front fit snugly against the wall.
**BENNETT **

**"DEEP-SEAT" ASH DUMP**

100% Heavier for Permanent, trouble-free service — 9 x 44 inches.

Cat. No. C-203.

**SCRU-TITE CLEANOUT DOOR**

Offered in cast iron with steel door (C-211) and in solid aluminum (C-212) for superior corrosion resistance. Both have air-tight closure with convenient thumb screw. Sizes 8" x 8" and 12" x 8".

**BENNETT**

**Warm-Aire FIREPLACE UNITS**


**BENNETT**

**Fresh-Aire FIREPLACE UNITS**

The very best for the modern weather-tight house. Draws fresh air from outside doors, heats and circulates it throughout the house.

Cat. No. C-121.

**BENNETT**

**Expanslip STEEL DAMPERS**


**BENNETT**

**Steep-Slope CAST DAMPERS**

High dome, steep slope (50°). Steel valve. Broad, strong front flange may be used as lintel bar. Sharp clean lines. Most up-to-date cast damper on today's market. Cat. No. C-103.

**Flekscreen SAFETY FIREPLACE CURTAINS**

The only Nationally Advertised curtain screen. Every fireplace owner is a prospect for Flekscreen. Its own best salesman, a display on your floor will increase your volume on this "quality" product.

Write now to 349 Market St. for Catalog and full information on the COMPLETE POST-WAR BENNETT LINE


---

**BENNETT - IRELAND INC.**

Chartered in 1900

NORWICH, NEW YORK

---

The Bennett Dealer enjoys steady demand for our line through our continuous National Advertising. Bennett Fireplace Supplies are a complete line of profitable quality products. It pays to sell Bennett.
Must buyers of your houses pinch pennies for food and WASTE DOLLARS FOR FUEL

Automatic Anthracite Heat offers savings up to 52% on annual fuel bills

- Here's how you can be a real friend to your clients . . . and build good will plus future business for yourself.

  Just ask a few clients if they would rather burn money or Anthracite . . . it's as simple as that.

  Then tell your clients how they can offset today's high living costs with completely automatic Anthracite equipment.

  You'll find that most people will welcome the chance to save $100 to $200 every year . . . particularly when they learn they can have all the comfort and convenience of completely automatic heat. Moreover you can assure them they will have plenty of heat . . . because there's plenty of hard coal now, and for years to come.

  * * *

Get complete information about modern coal stokers, and data on the revolutionary new Anthratube, by writing to Anthracite Institute now.

ANTHRACITE INSTITUTE
101 Park Avenue • New York 17, New York

Automatic Anthracite Stokers—Installed in an existing boiler or furnace and in new houses, automatic hard coal stokers deliver plenty of heat quickly . . . save up to 52% on fuel bills . . . eliminate fuel worries.

The Revolutionary Anthratube—The Anthratube saves on fuel bills . . . its proved efficiency is over 80%. This scientifically engineered boiler-burner unit, with "Whirling Heat" and other revolutionary features, produces quicker response and superior performance than units using other types of fuel.
Cuts Your Building Costs by 
Speeding Up Hundreds of Jobs

The pictures tell the story of why the Black & Decker ½" Standard Drill leads in popularity with builders. The spindle speed is just right for all sorts of building jobs...tying rafters together...framing up concrete forms...boring in heavy timbers...drilling in steel beams. Perfect operating balance, weighs only 9 3/4 lbs. Minimum spindle offset and horizontal spade handle designed for work in close quarters. Operates from standard power line or portable generator. And the tool is expertly built of first-quality materials to give you years of service!

Ask your nearby Black & Decker Distributor to show you this popular Drill of many uses...and the many other B&D Portable Electric Tools that mean faster building at lower cost. For your free copy of our catalog, write to: The Black & Decker Mfg. Co., 666 Pennsylvania Ave., Towson 4, Md.
Improved NEW GRADE for SOUTHERN PINE Provides HIGHER STRESS VALUES!

HERE ARE THE VITAL IMPROVEMENTS IN THIS GRADE

This close-up spotlights the improved grading standards for No. 2 Dimension which afford higher quality and new cost economies in this grade of Southern Pine framing material for residential and light commercial construction.

From every standpoint, this new grade is a decidedly better material than its predecessor. Its greater strength is known, because it carries definite working stresses...a feature previously available only in a higher grade at a higher cost.

SEND FOR NEW GRADING RULES—FREE

This constructive improvement is fully detailed in the new 1948 Southern Pine Grading Rules. Your copy and the helpful Grade Use Guide will be mailed promptly on request.

Quality Southern Pine Is Available, Now!

SOUTHERN PINE ASSOCIATION
It's New! It's beautiful! It's the last word in heating comfort . . . the New Modine Convector

It's the new way . . . the better way to heat the modern apartment, new home, school, office or hospital. Yes, Modine Convectors are functionally styled to complement modern taste in interior design. Modine gives you entirely new installation, control and maintenance features that make it one of the greatest forward steps in radiation. Call your Modine representative. He's listed in the "Where-to-Buy-It" section of your phone book. Or write direct for complete details. Modine Manufacturing Company, 1501 Dekoven Avenue, Racine, Wis.

Send for New Modine Convector Catalog Today! Special 1-Pipe Steam Convector Bulletin Also Available.

Modine CONVECTOR RADIATION

Modern Modine Convectors are available in four distinctive cabinet styles plus a wide range of modular sizes. For recessed, free-standing or wall-hung installations.
WEATHERTIGHT. Special roller crank closing action moves the entire door smoothly and evenly against the stop strips in the last few inches of its downward travel, effectively sealing the opening.

EASY WORKING. Tailored twin-torsion counterbalancing springs accurately support the weight of the door, so minimum effort is required for raising or lowering. Sticking is eliminated by the fast-freeing effect of the exclusive roller crank closing action.

Barcol OVERdoors assure satisfaction ... giving long, trouble-free service because they are strongly built, accurately assembled, and carefully installed by factory-trained men.

ADAPTABLE. The picture above shows a somewhat unusual installation, in that this garage has both a single width and a double width entrance. It is, however, an excellent illustration of the adaptability of Barcol OVERdoors. Suitable doors can be furnished for any design of building and for any size of opening.

ELECTRIC DOOR OPERATORS. Available for swinging, sliding, and overhead type doors, and for sliding gates. They offer the convenience and protection of switch control or the amazing Radio Control.

NEW PRODUCTS
(Continued from page 154)
ALUMINUM STORM WINDOWS
AB3921
Wilson aluminum storm windows fit all types of metal casements, and may be quickly and easily installed from the inside. Interchangeable with screens. Hollow rubber, securely attached to aluminum panel, prevents transfer of cold from metal casement, reducing possibility of condensation. Rubber insulation extends beyond and covers frame around aluminum panel. Ventilation provided by draft-free panel hinged at the bottom. Metal Window Co., 1954 W. 115th St., Chicago, Ill.

ASBESTOS CEMENT SIDING AB3913
Cerano siding has rot-proof, waterproof, fire-safe base of portland cement and asbestos fibers. Ceramic coated surface is fused on at high temperatures, making it smooth and hard. Density prevents infiltration of moisture or dirt, and any dirt that should accumulate on surface is generally washed off by rain. Available in standard 12-inch by 24-inch shingle size in the wave line, straight line or thatch butt pattern. Philip Carey Manufacturing Co., Dept. 20, Cincinnati 15, Ohio.

LIGHTED HOUSE NUMBER AB3924
Plastic, lighted house number is single unit, the numbers fused on permanently at the factory. Can be purchased with or without small built-in transformer, or if desirable, it can be plugged into wall.
“FORD F-8 Big Jobs outperform all other trucks in their class!”

“MY BONUS BUILT Ford F-8 Big Jobs, averaging 46,000 lbs. gross, are outperforming all other trucks in their class,” reports Mr. James L. Diggs. “Gas mileage is 6 miles per gallon. The engine on one F-8 has never felt a wrench, except for changing one set of points and two fan belts. My run takes us over a mountain range and through the intense heat of the Colorado River Valley.”

Mr. Diggs is one of many big-time haulers who give the Ford Big Jobs a great big hand. Owners report the 145-hp engine outperforms anything in its class. They offer plenty of proof that it out saves many engines much smaller in size. Drivers report that the new Ford Million Dollar Cab can’t be beat for comfort. Ford Big Jobs for ’49 are Bonus Built... like the other 139-plus models in the full line of Ford Trucks. Bonus Built is the superstrong construction that contributes to long truck life. Life insurance experts prove Ford Trucks last longer.

“ROADSIDE REPORT
FORD TRUCKS
JAMES L. DIGGS
KINGMAN ARIZONA

TON MOTORS
SERVICE ENTRANCE

SALES Ford SERVICE

BUILT STRONGER TO LAST LONGER

ONLY THE FORD BIG JOB HAS ALL THESE FEATURES!

• Ford exclusive concentric dual-throat carburetor for more power, more economy.
• New heavy duty 5-speed transmissions for operating flexibility.
• Big Ford power-operated brakes for sure-footed stepping; rear 16-inch by 5-inch on the F-8.
• Ford Super Quadrax 3-speed axle with vacuum shift for performance flexibility in Model F-8 (single speed axle also available); single-speed Quadrax Hypoid Axle in Model F-7.
• Large diameter (10-inch) wheel bolt circle with 8 studs to allow for extra-strong hub construction.
• Million Dollar Cab with Ford Exclusive Level Action suspension for greater driving comfort.
• Nationwide service from over 6,400 Ford Dealers.
• Ford Bonus Built construction for long truck life.

Gross Vehicle Weight Ratings: F-8 up to 21,500 lbs., F-7 up to 19,000 lbs., F-8 up to 39,000 lbs., F-7 up to 35,000 lbs.

USING LATEST REGISTRATION DATA ON 5,444,000 TRUCKS, LIFE INSURANCE EXPERTS PROVE FORD TRUCKS LAST LONGER!
The Little SWITCH that wasn't there...

can break a leg... or break a sale!

Enough switches, properly located—always ready to throw paths of light at the flick of a finger—can prevent many a broken leg—and will help to prevent many a broken sale! Customers know that adequately wired homes have plenty of switches.

An adequately wired home sells readily at a good price, because home buyers nowadays have learned to look for Adequate Wiring.

An Adequate Wiring Certificate is your proof that each house you design and build has:

- Enough outlets, fixed lights and switches.
- Adequate electric service entrance equipment, fed by three ample size wires.
- Enough branch circuits and spares for present and future electrical needs.

The Sign of the Times

Use the services of the local Adequate Wiring Bureau in preparing a complete Adequate Wiring layout and specification, before you put the electrical job out for bids. Get the wiring into the plans for better appraisal—a better loan!

If there is no Adequate Wiring Bureau in your community, write us or your local electric utility for information on how to take advantage of Adequate Wiring in the homes you build.

USE THIS COUPON if there is no Adequate Wiring Bureau in your area

National Adequate Wiring Bureau, Dept. AB-3
155 E. 44th Street, New York 17, N.Y.

Please send me, without charge, information on how to take advantage of Adequate Wiring as a sales feature.

NAME: ________________________________
TITLE: ________________________________
STREET ADDRESS: _____________________
CITY: ____________________ STATE: ______

ANOTHER USE THIS COUPON if there is no Adequate Wiring Bureau in your area

National Adequate Wiring Bureau, Dept. AB-3
155 E. 44th Street, New York 17, N.Y.

Please send me, without charge, information on how to take advantage of Adequate Wiring as a sales feature.

NAME: ________________________________
TITLE: ________________________________
STREET ADDRESS: _____________________
CITY: ____________________ STATE: ______

NEW PRODUCTS
(Continued from page 156)

REFRIGERATORS

AB1911
New exterior styling, more usable space, and adjustable stainless steel shelves as incorporated in four new refrigerators in 8 and 10 cubic foot sizes. Line is characterized by V-shaped door molding, stainless

plastic and metal nameplate, and chromium panel behind the handle. Butter conditioning compartment located in door permits housewife to keep a pound of butter at spreading consistency. Hotpoint, Inc., 5600 W. Taylor St., Chicago 44, Ill.

DISAPPEARING STAIRWAYS

AB1912
Model 45 Bessler disappearing stairway requires finished opening of 2 feet 4 inches wide. Standard sizes from 7 feet 7 inches to 10 feet, 7 inches floor to floor.

PLASTER MIXER

AB1923
Plaster mixer is designed to meet rough working conditions. Of a cubic foot capacity, it is driven by Briggs & Stratton engine through heavy roller chain drive.
In selecting the heat distribution equipment for homes of distinction, appearance is always an important consideration. For such equipment must blend architecturally with design . . . must harmonize with interior decorations.

Smartly-styled to meet these demands, Tuttle & Bailey Type RP Convectors actually add a touch of beauty to any room. Trim, space-saving units — exclusively designed for recessed installation — extend only 1 3/4" from wall. Front panel provides sufficient overlap to cover the wall plaster line.

From the standpoint of performance, T & B Convectors, operating on the principle of air motion, assure proper air circulation, more even temperatures, comfortable living . . . all-copper heating elements mean fast response to thermostatic control, quick transmission of heat from boiler to rooms, fuel cost savings.

For modern appearance . . . outstanding performance . . . specify and install *CH . . . with Tuttle & Bailey Standardized Copper Convectors.

**ASK YOUR JOBBER**

For detailed facts that will aid specifying and installing Tuttle & Bailey Convectors, write today for your copy of Catalog No. CBR.
A floor of Northern Hard Maple is a true floor—not a floor covering. And, truly resilient. Northern Hard Maple's resilience absorbs shock—means less fatigue and real comfort underfoot.

Northern Hard Maple, with its tough-fibre and right-grain has remarkable resistance to indentation and abrasion. Yet, it is truly resilient. For over 50 years, MFMA Maple floors have been laid in school classrooms, gymnasiums, auditoriums, bakeries, textile mills, industrial plants, stores, warehouses, residences. Builders know Northern Hard Maple affords everything these floors require—resiliency, warmth, beauty, smoothness, sanitation, long life and inexpensive maintenance.

Buildings planned for permanence deserve a true, resilient and permanent floor. Northern Hard Maple welcomes close comparison for all-round suitability, for cost, for investment value. Northern Hard Maple is the time proved quality flooring.

Consider MFMA (trademarked) Maple in strips or patterned designs. It is association supervised and guaranteed. Consider also, Northern Hard Beech and Birch for many spaces in building projects. Write for details.

REMEMBER! The service idea of member manufacturers assures continued co-operation after the flooring leaves their mills.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
Room 386—40 Washington Boulevard
OSHKOSH, WISCONSIN
Here is what Benjamin Kenneth Wyatt, architect for the Robstown, Texas and other school buildings, says about Stran-Steel Framing:

“We have used Stran-Steel construction in several recent school buildings.

“Besides being most flexible for modern design, providing light cantilevered construction, thin window mullions used with collateral materials, economical suspended furring, Stran-Steel offers great rigidity with speed of erection for greater economy.

“Being able to nail to Stran-Steel framing gives the economy of wood framing for dry wall construction (Knox School) also eliminates furring for metal lath (Robstown Schools) in plaster construction. Fire-safety and long life is of paramount importance in school building construction, and incombustible Stran-Steel framework meets both of these requirements.”

Stran-Steel framing makes it easy to design, easy to build BETTER BUILDINGS economically! If you are planning a housing project, a light industrial building or a private home, you can give your buildings a backbone of steel with Stran-Steel framing.

GREAT LAKES STEEL CORPORATION
Stran-Steel Division • Dept. 30 • Penobscot Bldg. • Detroit 26, Mich.
UNIT OF NATIONAL STEEL CORPORATION
NEW PRODUCTS
(Continued from page 158)

THREE-WAY CABINET LOCK AB3936
A patented rotating cylinder that permits lock to be adapted to any one of three different uses won for this cabinet lock a Certificate of Merit from Associated Locksmiths of California. The award was for simplification of stock. For cabinet, cupboards and drawers, it is applicable for either right hand or left hand doors. Yale & Towne Manufacturing Co., Chrysler Building, New York 17, N.Y.

CEMENT DISPERSAL AGENT AB3901
Posolith, a dispersing agent added in the mixer, increases resistance of portland cement to moisture penetration. Dispersing action breaks up the cement particles, releasing water imprisoned in small capillary lumps, thus facilitating the flow of fly ash through which the cement particles now increases strength and durability of surface area. Master Builders Co., Euclid and Thomas Sts., Cleveland, Ohio.

AWNING TYPE WOOD WINDOW
AB3910
Super-Vent awning type window, for use in light and heavy construction, incorporates patented mechanism which lowers each vent from the top as it opens outward. This permits easy cleaning, and provides 100 per cent controlled ventilation draft.

FREE AIR CIRCULATION, EVEN IN RAINY WEATHER.
Easily operated by crank. Super-Vent Co., 301 W. Monroe St., Chicago, Ill.

PERCOLATOR PRINCIPLE BOILER
AB3914
Percolinish boiler operates on a principle which permits tubeless design— the pen.

(Continued to page 166)
The New Factory-Assembled Door-Frame
that's Easy to Specify - Easy to Install

The result of "Pittsburgh's" constant and extensive research, aimed at helping to solve architectural and building problems actually encountered in the field, this door-frame simplifies specification as well as installation. It is factory-built of special shapes and of heavy extruded aluminum, heavily reinforced with structural steel. It is fabricated to high quality standards by experienced metal craftsmen, who use special checking gauges to assure accuracy of all dimensions.

Pittsburgh Herculite Door-Frame Assemblies come in twelve standard designs and these make possible numerous combinations. There are no problems of setting and fitting; no assembly is required on the job. When ordering, all you do is indicate the name, "Herculite Door-Frame Assembly," and give the style number and size. It will come to you complete with moldings for transom glass, supports for sidelights, strikes for locks, sockets for bolts, and everything else necessary for its installation.

In addition, these door-frames are equipped with the famous Pittco Checking Floor Hinge. Only 6 1/4" x 6 1/4", this hinge has remarkable operating characteristics, such as positive door speed control, a separate checking control, and a built-in hold-open feature.

You will be interested in getting our illustrated booklet on Pittsburgh's Door-Frame Assembly. Fill in and return the coupon below for your free copy.

HERCULITE
DOOR-FRAME ASSEMBLY

Pittsburgh Plate Glass Company
2118 Grant Building, Pittsburgh 19, Pa.

Without obligation on my part, please send me a free copy of your booklet on Pittsburgh's Herculite Door-Frame Assembly.

Name
Address
City
State

Pittsburgh Plate Glass Company

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY
Cut the time from "framed" to "finished" with a Stanley-Carter Power Plane

Speed up where you usually have to slow down . . . after the framing's done and you start fitting doors, sash, shutters, cabinets and trim. Get mill speed and precision at a dozen places with a Stanley-Carter Power Plane. It's the combination of spiral cutter and high-speed motor that does the trick . . . smooth, waveless cuts even across or against the grain. Your choice of 3 sturdy, versatile models:

"WASP", 3 ½ h. p. 18,000 r.p.m. . . . Planes any edge up to 1½" wide. Adjustable front shoe sets depth of cut. Has profitable secondary uses as small planing mill . . . by substituting Carter Shaper Cutters for spiral cutter. Will make surface bevels, tongue and groove, rabbit, plow, chamfer, rounding and other molding cuts. Also cuts weather-stripping grooves.

J 4A, 1 h. p. 18,000 r.p.m. . . . Planes edges up to 2 ½" wide. Has adjustable fence for making straight or bevel cuts from 0 to 45 degrees. Depth of cut set by dial. Furnished with two important accessories . . . an attachment which enables plane to grind own cutter and a bench bracket for converting plane to bench jointer for small work.

J 5, 1 h. p. 18,000 r.p.m. . . . Largest, most powerful portable electric plane. Handles any width edge up to 2 ½". Has some adjustable fence. Cutter grinding attachment and bench bracket as the J 4A. Heat treated aluminum body and aluminum alloy motor body. All wiring inside. Double pole, momentary contact, safety trigger switch with locking provision.

Write for complete, illustrated literature. Stanley Electric Tools, Stanley-Carter Sales Dept., 534 Myrtle Street, New Britain, Conn.

Here's the Latest in PORTABLE HEAT

THE NEW HERMAN NELSON
De Luxe Model Portable Heater

- Provides Quick, Clean, Safe Heat — without smoke, soot or open flame.
- Abundant fresh, heated air — forced to areas where most needed.

Full 250,000 BTU per hour capacity — enough to heat three ordinary 5-room houses!

Burns range oil, kerosene or prime white distillate — costs less than 39c per hour!

Electric motor powered; 115-230 volt, 60 cycle, single phase.

Automatic, constant spark ignition!

Two 12" dia. x 12' long, extendable hot air ducts.
Streamlined appearance. Two-tone finish.

Still Available

The original Herman Nelson, gasoline burning, gasoline engine powered, Portable (Ground) Heaters. For areas lacking electric power. Completely self-powered. Easily portable by one man.

Write for Interesting Free Booklet on "COST CONTROL"
What size, Mr. Builder?

Builders have different ideas about sizes of materials. Take insulating sheathing, for instance. Some prefer the 2' x 8' size because it's easy to handle and nail up. Others say 4' x 8' sheathing does a better job because it covers more wall space at one time.

Temlok® Sheathing is now being made in both sizes—2' x 8' x 2-1/4" and 4' x 8' x 2-1/4"—to satisfy all your requirements. The 2' x 8' size is ship-lapped on the long edges to insure weather-tight horizontal joints. This sheathing is also available in sheets 4' x 8' x 1/2", useful for many types of light construction.

Armstrong's Temlok Sheathing is a rigid fiberboard insulation, completely impregnated with asphalt. This asphalt bonds the fibers securely together to provide extra strength, yet never gums the saw or interferes with handling.

The strength and nail-holding power of Temlok Sheathing make the framework of a house sturdy and rigid. Temlok's high insulating value keeps the homes you build warmer in winter and cooler in summer. Ask your Armstrong lumber dealer for full details and samples of Temlok Sheathing, Armstrong Cork Company, Building Materials Division, 1603 Ross Street, Lancaster, Pennsylvania.
It's Easy to Sell the Door Home Owners Want!

GLIDE-AWAY
LIFETIME GARAGE DOORS
MADE OF N-A-X HIGH TENSILE STEEL

THE ONLY DOOR WITH ALL THESE ADVANTAGES:

"Glide-Away" is the only overhead-type garage door made of N-A-X High Tensile Steel for 50% greater resistance to distortion and denting, and 4 to 5 times greater resistance to rust and corrosion. And look at the other features: One piece, all-welded construction for extreme rigidity. Edges are completely flanged to eliminate all sharp surfaces. Full recessing with only 2 1/2" of headroom required. Space-saver, jamb-type hardware that provides smooth, gliding action without sacrificing interior space. Distinctive jamb-aligner and weather seal that assures perfect closure even for out-of-plumb openings; and easily-adjusted, spring-balanced mechanism that provides effortless operation. Yes, "Glide-Aways" are just what home owners want, because they're built for a lifetime of trouble-free service, good looks and utmost protection.

DESIGNED FOR QUICK, FOOLPROOF INSTALLATION

"Glide-Aways" are so simple to install that anyone can do it quickly and without special tools. Standard sizes include the popular 8' 6" x 7' door for wide, late model cars, in addition to 8' x 7', 8' x 7' 6" and 8' x 8'. Double size is 16' x 7'. Special sizes available up to 16' wide by 8' high. Prices are competitive.

STEEL DOOR DIVISION
STAMPING PRODUCTS AND MFG. CO.
628 E. FOREST AVE. • DETROIT 1, MICH.

NEW PRODUCTS
(Continued from page 162)

Banderolizing after forming makes Lawson bathroom cabinet rustproof and corrosion-resistant. One piece drawn seamless steel body. Stainless steel adjustable shelf supports. Improved snap-in type electrical in-

FLUORESCENT LIGHTED CABINET
AB3924

Banderolizing after forming makes Lawson bathroom cabinet rustproof and corrosion-resistant. One piece drawn seamless steel body. Stainless steel adjustable shelf supports. Improved snap-in type electrical in-

Please send detailed information on "Glide-Away" Garage Doors.

STAMPING PRODUCTS AND MFG. CO.
STOCK PORCH COLUMN
AB3930

Stock porch column available in 2, 7 foot, 7 foot, 6 inches and 8 foot lengths in unusual carrying strength. Decorative effects easily achieved. Firm also specializ-
Announcing
the New

AllianceWare
PORCELAIN ON
STEEL

BATHTUB

Modern Design • Wide Seat • Ample Depth

THIS most recent AllianceWare tub — Model BA5 — has three important features — (1) an attractive, modern panelled apron which complements any basic design of bathroom decorations; (2) a wide seat as an integral part of the outer rim; and (3) a height of 15½ inches.

All other features of AllianceWare quality — heavy gauge steel but light weight in comparison with cast iron; integral wall guard, and the lustrous, stainproof, porcelain-on-steel surface of all AllianceWare fixtures — are an inherent part of these models. These tubs are available for either right or left hand installations — 5 foot recess.

Catalog descriptions giving complete details and dimensions of this AllianceWare tub, Model BA5, will be mailed gladly upon request.

ALLIANCEWARE, INC. • Alliance, Ohio
Bathtubs • Lavatories • Sinks
Structural Reinforcing or other Bldg Steel Shipped from Stock

Write for Stock List your guide to over 10,000 different kinds, shapes and sizes of steel in quick shipment from our plants.

Joseph T. Ryerson & Son, Inc., Plants at: New York, Boston, Philadelphia, Detroit, Cincinnati, Cleveland, Pittsburgh, Buffalo, Chicago, Milwaukee, St. Louis, Los Angeles, San Francisco.

COMETS FEATURE
SPEED POWER ACCURACY
Versatility

Other qualities too! exclusive mechanical features that make Comets superior in their field. Each Comet model makes all the cuts, with extra safety and clear view for the operator. Easy, finger tip pressure swivels Comets into desired position. Whatever you want in a radial power saw is to be found in a Comet. See for yourself. Visit the nearest Comet dealer or write direct.

Distributors of Davis and Wells Woodworking Machines

CONSOLIDATED MACHINERY & SUPPLY CO., LTD.
2029-33 Santa Fe Avenue, Los Angeles 21, California

This page contains advertisements for steel beams, windows, and power tools, along with product details and contact information for manufacturers and distributors.
New Beauty for New Houses!

a new kind of building material

Sloane Quality Koroseal*
Cove Base
For all base-board needs. Easy to install, permanently beautiful. Easy to clean.

Here is a beautiful new plastic building material that provides finer results for every base-board and coving need—a "must" for any modern home.

Look what Koroseal—and Koroseal alone offers . . .

Absolute immunity to grease, acid, alkalis, moisture or temperature change. It will never rot, mildew or stain . . . has no pores to collect dirt or germs.

It is dent-proof . . . non-inflammable . . . virtually indestructible. Installation is quicker and easier than wood base-board or molding . . . and no painting is required! And the material comes in a wide choice of fade-resistant, jewel-bright colors.

And wherever foot traffic is heavy . . . wherever matchless beauty and top quality are important, there is just nothing like Koroseal Tile—the longest wearing floor covering known . . . 18 colors—Crystaltone and Marbletone designs.

Write for free samples and further information about this amazing new material.

Sloane-Blabon Corporation
DEPT. AB2, 295 FIFTH AVENUE, NEW YORK 16, N. Y.

- Jewel Colors
- Never Needs Painting
- Lasts a Lifetime
Do you know about these exclusive outside colors?

Architect: Eleanor Raymond

CABOT'S COLLOPAKES now offer you a choice of 32 beautiful colors—including the exclusive Haddam Barn Red, Williamsburg Blue, Longfellow Yellow, Harwichport Blue.

Cabot's unique Collopaking process subdivides pigments to sub-microscopic fineness—gives Collopakes a porcelain-smooth, durable surface that shows no brush marks.

Because Cabot's Collopakes contain no fillers or adulterants, the rich colors stay fresh and lovely looking for years.

Write today for new Collopakes Color Card and complete information.

Samuel Cabot, Inc.
324 Oliver Building, Boston 9, Mass.
New York Minneapolis Chicago

California Home Builders Award Prizes for Economy Homes

THE Home Builders Council of California awarded prizes to the winners of its Economy Home Contest, recently, ending an eight-month search for well designed, lower priced housing.

The competition sought designs for two-bedroom homes priced under $7,750 without land, and three-bedroom homes under $8,500 exclusive of lot.

Top award in both classes went to William Blackfield, young Contra Costa County builder. His winning construction costs, without land, are $7,500 for the two-bedroom home and $8,100 for the three.

Blackfield waived his $1500 cash award, requesting that the money be used by the Council to further its research for development of more economy housing for low and middle income families. He was awarded a plaque in lieu of the cash prize.

An engineering graduate of the University of California with 15 years of construction experience, Blackfield is proving practicality of his plan by constructing 400 of the prize winning homes in a subdivision one-half mile west of Concord in central Contra Costa County. More than 100 of these homes have been completed and sold for $8,500 to $9,100.

Second prize of $300 in the two-bedroom home category went to a World War II veteran, George Van Leer, 1391 Franklin Street, Santa Clara. The 27-year-old ex-bomber pilot captured his prize with plans for a rambling one-story frame home.

Third award of $200 in the two-bedroom class went to another young Air Force veteran, Earle S. Drape, Jr., 4535 45th Avenue, S.W., Seattle, Washington. The 30-year-old ex-

(Continued to page 174)

TRI-STATES announces . . . THE NEW
27" BLADE BIG CHIEF KUTTER

NEW ANGLE GAUGE can be easily attached or detached by the operator and enables him to quickly cut shingles with precision to desired degree of angle.

FRONT END NOSE PUNCH is part of upper main casting and is easily operated by the nose punch handle. Rear punch is mounted 10 1/2" back from shingle stop and is conveniently operated by main handle, giving the operator two sizes of nail holes.

IMPROVED NOTCHER is newly designed from high grade, heat treated steel and is hollow ground, with teeth that are milled to notch a much smoother and faster cut.

LOOK FOR THE BRAND OF THE Big Chief
This new Barrett champion weighs in 257 lbs. to the square. It makes a roof that will give the utmost in weather and wind protection, long-life and distinctive beauty.

It's a 12" x 36" strip shingle made from an extra thick felt base super-saturated with blended asphalt to which is added a specially heavy coating of mineral granules in attractive color tones. Can also be applied 4" to the weather (with special slits to facilitate application), to give a weight increase of 25 per cent, yet with only 20 additional shingles per square.

And what a roof! The extra thickness throws heavier shadows at the butts — gives that extra distinction that discriminating home owners want today.

Show your customers Barrett Superweight Multi-Shingles! and you'll understand why we say this shingle is a champion among champions!

**SPECIFICATIONS**
- Size 12" x 36" — 2" Headlap.
- Weight approx. 257 lbs. per square.
- 89 shingles per square — 3 packages per square
- Underwriters' Class C Label.
- Colors: Blue Black, Green Blend, Deep Green, Blue Blend, Brown Blend, Slate Blend, Red Blend.

**THE BARRETT DIVISION**
ALLIED CHEMICAL & DYE CORPORATION
40 Rector Street, New York 6, N. Y.
2800 So. Sacramento Ave. 36th & Grey's Ferry Ave.
1327 Erie Street
Birmingham 6, Alabama
† Trade-mark of Allied Chemical & Dye Corporation
Now, you can dry-cut masonry units, anywhere, regardless of job conditions. Only the new FIREPROOFER offers dust-free dry-cutting without the use of liquids.

The new FIREPROOFER has been proven on our own masonry cutting jobs. Over 25 years of experience in cutting masonry units has led to its development.

**NEW Fireproofer MASONRY SAW**

**DUST-FREE DRY-CUTTING**

**DRY-CUT FOR GREATER SPEED, EFFICIENCY, ACCURACY, SAFETY!**

**WRITE FOR ILLUSTRATED BROCHURE, PRICES AND SPECIFICATIONS**

**MARTIN FIREPROOFING CORPORATION, 2100 Military Road, Buffalo 17, N.Y.**

How to be *Sure About Costs* When You Estimate a Building Job

THE SIMPLE TAMBLYN SYSTEM OF ESTIMATING REDUCES BUILDING MATERIALS and LABOR COSTS TO EASY-TO-USE FACTORS!

Do you get that creepy feeling about your estimates? Why take a chance when you can be sure! Just multiply by our simple factors to determine your labor and material costs. The Tamblyn System is simple, fast, accurate, complete and dependable!

YOU MAY SAVE MANY TIMES ITS LOW COST IN ONE USE!

In order to get your share of profitable building contracts, you must be able to figure jobs fast and accurately. You must be sure your estimate is just right—low enough to get the job—high enough to give you a reasonable profit.

USED BY SUCCESSFUL CONTRACTORS FOR OVER 40 YEARS!

Many of the largest and most successful contractors in the United States and Canada—thousands of them—have used the Tamblyn System of estimating. It is tried and tested—it has been used for more than 25 years. Forty years of experience in construction and building is behind it. And you can study the system for 10 days without cost.

TEST THE TAMBLYN SYSTEM IN YOUR OWN OFFICE WITHOUT OBLIGATION

Send the coupon below for your complete Tamblyn System. Examine it in the privacy of your own home or office for 10 days. Try it on new jobs—check it against completed jobs. There is no obligation unless you keep it.

SEND NO MONEY—TRY IT FOR 10 DAYS FREE! THE TAMBLYN SYSTEM, 1115 So. Pearl St., A-27, DENVER, COLO.

---

**THE TAMBLYN SYSTEM, 1115 So. Pearl St., A-27, DENVER, COLO.**

Send me the complete Tamblyn System on free 10 days trial. If I like it I will pay $2.75 when 10 days are up and $2.75 per month until $8.75 is paid. Otherwise I will return it.

**NAME**

**ADDRESS**

**CITY**

**STATE**

---

*specify NORDAHL sliding door frames*

When you incorporate NORDAHL sliding door frames into your construction specifications, you're opening the door to more spacious living. Each installation provides up to 12½ square feet of usable floor space. And when you specify NORDAHL in the wall sliding door frames you get these PLUS features...ball bearing rollers — metal track — and metal-reinforced jamb. NORDAHL frames are trouble-free and assure quiet operation and long life. For the best, specify NORDAHL!

180 WEST ALAMEDA AVENUE - BURBANK, CALIFORNIA

ALSO SPECIFY NORDAHL WARDROBE HARDWARE
Now! Miami-Carey puts you in the fan business

Complete line of precision-engineered fans gives you big, year 'round market and profit possibilities.

1. ATTIC FAN line—3 Models
   - For cool, healthful, hot weather comfort in homes.
   - Ideal for use in industrial, farm and commercial buildings the year round. (Louver and automatic controls also available.)

2. WINDOW VENTILATOR—1 Model (portable)
   - For summer comfort in small homes and apartments.
   - For day in and day out applications in commercial, institutional and industrial buildings.

3. KITCHEN VENTILATOR line—5 Models
   - For the quick, efficient removal of cooking odors and greases from kitchens ... Plus other applications in recreation rooms, bathrooms and the laundry.

Miami-Carey, famous for its outstanding line of bathroom cabinets and accessories, now makes available to you another profit-building line—precision-built fans designed to help you sell a great, lucrative, wide-open market, both new and existing buildings, that needs selling by salesmen like you.

Here's a year 'round sales opportunity, a complete line, to help you sell healthful ventilation for residential, commercial and industrial installations in all seasons ... as well as cool, hot-weather comfort.

Be the first in your community to step out in front with the complete Miami-Carey fan line.

You can add these fans to your material list on each job—without adding sales cost. So—ask your Carey dealer about "around-the-calendar ventilation" today as part of your regular line. Or write to

"COB-WEB" CASEY GETS "CLONKED" INTO COLD CASH!

By Your Local Dodge Man

I WISH I KNEW WHO WAS BUILDING WHAT AND WHEN... AND WHERE!

NOW MY STOCK IS REALLY MOVING! PROFITS ARE PILING UP—THANKS TO DODGE REPORTS!

FREE...

Without cost or obligation, let me see some current Dodge Reports.
I do business east of the Rockies.

DODGE REPORTS CONSTRUCTION NEWS DIVISION
F. W. DODGE CORPORATION
119 W. 40th Street—New York 18, N.Y.

American Builder, March 1949.

California Homes

(Continued from page 170)

A glider pilot was graduated from the architectural school of Yale University in 1947 following five years of overseas service. Draper's home design calls for the new look in housing—a flat roof, frame structure.

Blackfield's prize winning home is designed for a 75 by 125 foot lot. Built on the increasingly popular concrete slab, it has stucco exterior walls with inside walls plastered. The roof, of conventional pitch, is covered with composition shingles.

Interior living space approximates 860 square feet and all floors are covered with asphalt tile. An arbor-protected, roofed-over breezeway connects the home and detached garage.

Other features include fireplace, gravity flow central heating system, oversize windows, and extra cabinet-space in the kitchen which also has tile drainboards and splashbacks. Laundry facilities are provided in the garage.

The second prize Economy Home, designed by George Van Leeuwen is highlighted by a fully developed outdoor living space. The arbor-covered outdoor area opens off a glassed-in living room which also has a Roman brick fireplace in one of the redwood paneled side walls.

Except for the bath, laundry and kitchen floors, which are linoleum covered, all floors are polished hardwood. A semi-protected walk connects the laundry area of the house and the carport provided in lieu of a garage. Inside living area of the house totals approximately 900 square feet.

The third prize two-bedroom home, designed by Seattle architect Earl S. Draper, Jr., is of contemporary or modern design and offers some 935 square feet of interior living space. The flat roof is constructed conventionally with inside ceiling

(Continued to page 178)
WHY SHOULD AN INSULATION BE BONDED TO ITS COVERING?

Insulation must be bonded (securely fastened to its covering) to withstand the vibration that occurs in every house. Such vibration can shake the mat loose, allowing it to sag and settle. This leaves uninsulated areas. Hold a sample of insulation by the edges and shake vigorously ... if the mat and liner part company, the insulation has failed one test of quality.

Balsam-Wool, the insulation that can't pack or settle down, offers extra protection against uninsulated areas. The felted wood fibers of Balsam-Wool are bonded together to form a homogeneous insulating mat, firmly cemented to the liner...it is DOUBLE BONDED! In addition, the Balsam-Wool blanket is securely fastened in place, when applied, by its sturdy spacer flanges.

Combining advanced design and engineering, Balsam-Wool embodies the latest scientific developments such as:

- Continuous, Integral Vapor Barrier
- Sturdy Wind Barriers
- Double Air Spaces
- Special Spacer Flanges
- Rot and Termite Treatment
- Highly Fire Retardant
- Rigid Quality Control

You'll find the answers to many insulation application problems in a complete set of Balsam-Wool Data Sheets designed for you. They're yours for the asking, mail the coupon!

Balsam-Wool

SEALED INSULATION

BALSAM-WOOL • Products of Weyerhaeuser • NU-WOOD®

Wood Conversion Company
Dept. 119-39, First National Bank Building
St. Paul 1, Minnesota

Please send me a set of Balsam-Wool Application Data Sheets.

Name: ..........................................................

Address: ................................................................

City: ..........................................................Zone: ...State: ........
**Avoid COSTLY ERRORS**

Save Time and Money

You'll find

**THE DAVID WHITE UNIVERSAL LEVEL-TRANSIT**

**IS THE MOST PRACTICAL ALL-AROUND BUILDER'S INSTRUMENT YOU'VE EVER HANDLED**

Yes, you'll be time and money ahead if you use a David White Universal Level Transit in connection with all your survey and checking operations — your building and road construction. The David White Universal Level Transit is an extremely accurate, amazingly rugged instrument. It quickly converts from level to transit. It's designed to provide maximum strength and protection to all parts thus assuring you constant precision over long periods of use and handling.

Among its many features are: Full 12" telescope with 25 power coated optics, a patented ball-bearing race, lock and release lever system, easy perfect alignment adjustments, guarded horizontal circle, vernier accurate to 5', vertical arc 5" diameter.

Write today for complete information on this time and money saving instrument. Included will be helpful booklet — "How to Lay Out Building Lots."

---

**50-50 PUSH-OVER GARAGE DOOR HARDWARE**

Heavy duty, well-engineered garage door hardware. Result: a quickly installed, easily operated, overhead door. Designed to insure customer satisfaction.

Standard set fits any opening up to 9' wide x 7'6" high when doors do not exceed 275 lbs. Other sets available for openings up to 10' wide x 10' high.

---

**ALLITH-PROUTY, INC.**

**UNUSUAL OPPORTUNITY**

**For Builders and Building Supply Dealers**

Due to a change in marketing plans a nationally-known manufacturer has available for immediate shipment, a large stock of **SPRING TYPE OVERHEAD GARAGE DOOR HARDWARE SETS**

These high quality sets are designed for use in better class homes. Made to assure long, trouble-free operation. Easy to install.

Operating spring is of torsion type, mounted above door. No springs, levers or arms project inward from the jamb to interfere with passage.

Spring assembly is complete with drums and shaft made up as one unit. Ball-bearing guide rolls. Vertical rails have slotted holes to permit easy lateral adjustment. Cable drum is tapered to compensate for change in tension as it unwinds.

Designed for one-piece garage doors with opening up to 8 ft. wide and 7 to 8 ft. high, weighing up to 150 lbs. Auxiliary spring available for heavier doors. Requires only 3' to 3 1/2 in. headroom. Has chrome-plated handle with cylinder lock built in. Packed in wire-bound crate for easy storage and handling. Available in any quantity.

Don't miss this unusual opportunity. Write today for descriptive circular and prices.

**BOX 303**

**AMERICAN BUILDER**

105 W. ADAMS STREET, CHICAGO 3, ILL.
More and More Home Owners Will Clamor for
ALL-NEW Steel Casements

PROMPT DELIVERY . . .
COMPLETE CUSTOMER SATISFACTION

Yes...
Steelcraft Standard Type Steel Casements Are Better So Many Ways...Yet Cost No More!

Check These ALL-NEW FEATURES!
- Deeper 1 1/4" Sections for Greater Rigidity!
- Cold Rolled Steel Construction Throughout!
- Easier and Better Painting and Glazing!

That's right . . . these are the casements that are taking dealers and contractors alike by storm—for they represent the first major improvement in the casement window industry since the introduction of the under-screen geared operator 20 years ago! This is a revelation in casement manufacture—a cold rolled formed steel sash that is deeper, stronger, more adaptable . . . becoming the foremost Standard Type Steel Casement on the market.

Combined construction and designing viewpoints of contractors, glaziers, engineers, and architects were digested by STEELCRAFT’S top-flight engineers and incorporated into this new, ALL-NEW standard type casement. As a result, this casement is found to embody all the advantages of the far more costly custom-built windows—though staying well within the economy-bracket of standard casements. Send now for complete details on this Standard Type Casement . . . as well as information on the complete line of STEELCRAFT Casements.

Write for Free Catalog Now!

Mail This Coupon TODAY!

STEELCRAFT MANUFACTURING COMPANY
9145 Blue Ash Road,
Rossamoyne, Ohio (in Greater Cincinnati)
Please send me your free new catalog on the Complete Steelcraft Steel Casement Line.

NAME __________________________
BUSINESS ADDRESS __________________________
CITY __________________________ STATE __________________________
MY POSITION __________________________ TYPE OF BUSINESS __________________________
California Homes
(Continued from page 174)

covered with two coats of plaster.
Interior walls are also plaster finish.

Outstanding feature of the home, aside from overall design, is its use
of radiant heat. Copper coils for the
heating system are imbedded in the
concrete slab foundation. Surface of
the slab, which forms interior floors,
is stained and polished. The heating
system is augmented by a painted
brick fireplace.

Exterior walls of the home call for
vertical tongue and groove cedar sid-
ing. Redwood rustic may be sub-
stituted for the cedar. Log sections, im-
bedded in the ground, are used to
form a sidewalk to the detached ga-
rage.

Blackfield and Van Leeuwen ac-
cepted their awards at a luncheon
held in San Francisco's Sir Francis
Drake Hotel today. Presentations
were made by Earl W. Smith of
Berkeley, Council chairman, and Mil-
ton W. Morris, Council secretary.

Draper was unable to be present
for the awards.

Honorable mention was also ac-
corded the home plan developed by
Council Chairman Smith. The de-
sign was cited as having achieved
the lowest construction costs in
California's Economy Home market.

C. W. Smith Appointed
Administrative Director
Of Revere Institute

APPOINTMENT of C. W. Smith
of Highland Park, Ill., a specialist in
the housing engineering field, as ad-
ministrative director of the Revere
Quality House Institute was recently
announced by Henry Wright, chair-
man of the Institute's executive
committee. Smith resigned as president
of the Techope Co. of Evanston, Ill.,
to take the post.

Smith will devote his full time to
the Institute. John H. Callender, who
has maintained his New York archi-
tectural practice while serving the
Institute as executive secretary, under
the new setup will continue to devote
part of his time to the organization as
technical director.

Smith was president of the Housing
Research Foundation and was for-
merly assistant to the chairman of the
Building Research Advisory Board
of the National Research Council.

His appointment is coincident with
the expansion of the Revere Quality
House Institute plans for this year,
which include sponsorship of the
building of 30 demonstration housing
projects throughout the country.

Smith announced that the Institute
would shortly be incorporated as a
non-profit organization.

ROMANY TILES

Many Bright
Cheery Colors
to Choose from

Romany Tiles are real clay tiles.
Not a substitute. Surprisingly
simple to install. Their bright
hard glazed surface is extra
durable and extra easy
to clean. You can't offer a better
wall tile for kitchen or bath.

Write for color folder
how
Rom-
any on a tile job. We

* Write for color folder and suggestions how
you can best use Ro-


california Homes
(Continued from page 174)

covered with two coats of plaster. 
Interior walls are also plaster finish.

Outstanding feature of the home, aside from overall design, is its use
of radiant heat. Copper coils for the heating system are imbedded in the concrete slab foundation. Surface of
the slab, which forms interior floors, is stained and polished. The heating system is augmented by a painted brick fireplace.

Exterior walls of the home call for vertical tongue and groove cedar siding. Redwood rustic may be substituted for the cedar. Log sections, imbedded in the ground, are used to form a sidewalk to the detached garage.

Blackfield and Van Leeuwen accepted their awards at a luncheon held in San Francisco's Sir Francis Drake Hotel today. Presentations were made by Earl W. Smith of Berkeley, Council chairman, and Milton W. Morris, Council secretary.

Draper was unable to be present for the awards.

Honorable mention was also accorded the home plan developed by Council Chairman Smith. The design was cited as having achieved the lowest construction costs in California's Economy Home market.

C. W. Smith Appointed
Administrative Director
Of Revere Institute

APPOINTMENT of C. W. Smith of Highland Park, Ill., a specialist in the housing engineering field, as administrative director of the Revere Quality House Institute was recently announced by Henry Wright, chairman of the Institute's executive committee. Smith resigned as president of the Techope Co. of Evanston, Ill., to take the post.

Smith will devote his full time to the Institute. John H. Callender, who has maintained his New York architectural practice while serving the Institute as executive secretary, under the new setup will continue to devote part of his time to the organization as technical director.

Smith was president of the Housing Research Foundation and was formerly assistant to the chairman of the Building Research Advisory Board of the National Research Council.

His appointment is coincident with the expansion of the Revere Quality House Institute plans for this year, which include sponsorship of the building of 30 demonstration housing projects throughout the country.

Smith announced that the Institute would shortly be incorporated as a non-profit organization.

ROMANY TILES

Many Bright
Cheery Colors
to Choose from

Romany Tiles are real clay tiles. Not a substitute. Surprisingly simple to install. Their bright hard glazed surface is extra durable and extra easy to clean. You can't offer a better wall tile for kitchen or bath.

Write for color folder and suggestions how you can best use Romany on a tile job. We want to help.
SAVE TIME! MONEY!

SAVE WITH GOLD BOND GYPSUM SHEATHING! The initial cost is less than most other sheathing materials. And the big panels in uniform 8 foot lengths go up quickly with practically no waste or cutting. New asphalt treated core for extra moisture protection. One man can sheath an average home in a day. And you’ll have fireproof, stronger, wind-tight walls!

SAVE WITH GOLD BOND GYPSUM WALLBOARD! For quick modernizing or low cost homes where wallboard is specified, this sturdy, fireproof wallboard goes up quickly and easily. Won’t warp, expand, or contract, and accordingly, takes any decoration—paint, texture and wallpaper. Joints may be completely concealed with Gold Bond Perforated Tape System, described below.

SAVE WITH THE GOLD BOND PERFORATED TAPE SYSTEM! For use with recessed edge Gold Bond Gypsum Wallboard when smooth wall finish is desired. Easy-to-use, fast, and makes joint actually stronger than the wallboard itself.

THANKS TO GOLD BOND RESEARCH, you’ll save time and money with all Gold Bond Gypsum Board Products—and you’ll have better final results with more satisfied customers. Use GOLD BOND PRODUCTS 100% and center the responsibility with one reliable manufacturer.

NATIONAL GYPSUM COMPANY
BUFFALO 2, NEW YORK

Over 150 Gold Bond products including gypsum lath, plaster, lime, wallboards, gypsum sheathing, rock wool insulation, metal lath products, and partition systems, wall paint and acoustical materials.
You Meet 3 Specifications With The
KRESKY AIR CONDITIONING
UTILITY HIGHBOY
OIL FURNACE

- Forced Circulation of Warm Air
- Forced Circulation of Filtered Air
- More Living Space From Any Floor Plan

Even homes without basements can have modern warm air conditioned heating with the Kresky Utility Highboy Oil Furnace. Only requiring a space 24x34x60 inches... this furnace can be tucked into any nook, and give “big” performance, with capacities of 67,000 BTU or 112,800 BTU per hour and a ten-inch blower type circulating fan.

The filter case can be installed on any side, or if preferred, under the Kresky Highboy to draw in cold air beneath floor joists. Beautifully finished in brown enamel, the furnace is shipped completely assembled, including all wiring, except blower and thermostat.

The Famous Patented Forced Air Induction Oil Burner Makes Possible Giant Heat From Dwarf Space

The Kresky Oil Burner gives soot free heat and full delivery of the maximum heat content of fuel oil. Your dealer will be glad to demonstrate the superiority of the Kresky burner.

For information on the Kresky Utility Highboy Oil Furnace, Kresky Floor Furnaces, Basement Furnaces, Water Heaters, write to Kresky.

KRESKY MFG. CO., INC.
601 Second Street.
PETALUMA • CALIFORNIA
The Best Known Name in Oil Heating Since 1910

Home Comfort Cooling

CHESLSEA
SPRING-MOUNTED FANS

- Easy To Install
- Certified Air Output
- Quiet in Operation
- A Quality-Built Product
- Unconditionally Guaranteed
- Complete Package Unit

The Famous Patented Forced Air Induction Oil Burner Makes Possible Giant Heat From Dwarf Space

The Kresky Oil Burner gives soot free heat and full delivery of the maximum heat content of fuel oil. Your dealer will be glad to demonstrate the superiority of the Kresky burner.

For information on the Kresky Utility Highboy Oil Furnace, Kresky Floor Furnaces, Basement Furnaces, Water Heaters, write to Kresky.

KRESKY MFG. CO., INC.
601 Second Street.
PETALUMA • CALIFORNIA
The Best Known Name in Oil Heating Since 1910

Keystone Wire Cloth Co., Hanover, Pa.
DIVISION OF
SENeca WIRE & MFG. COMPANY
FOSTORIA, OHIO
Timken Silent Automatic

"Duty-Designed" oil heating equipment satisfies every small-home demand for quietness, dependability, compactness and fuel economy... plus low first cost in keeping with small-home budgets.

- BUILT RIGHT
- PRICED RIGHT
- DESIGNED RIGHT

TO SPEED THE SALE OF YOUR SMALL HOMES.

Small homes sell faster when they're equipped with nationally advertised Timken Silent Automatic "Duty-Designed" oil heating equipment!

Here's a complete range of sizes and types of units—all built expressly to meet small-home heating needs. Newly engineered throughout—and totally unlike anything else on the market—these Timken Silent Automatic "Duty-Designed" units are truly in a class by themselves.

Because of their quietness, reliability, compactness, and fuel economy, they insure complete owner satisfaction. What's more, this quality-built equipment is priced to help you cut costs and offer better homes at lower prices. Today, more than ever before, it will pay you to install Timken Silent Automatic!

NFW "DUTY-DESIGNED" LO-BOILERS, incorporating every wanted, needed feature for finest small-home heating, are ready in a wide range of capacities from 25,000 to 110,000 Btu. per hour output. Two cabinet types—deluxe and special. Three heat exchanger types—copper coil, cast iron and steel. Tandem installations are recommended for large homes. Write for literature today!

Other "Duty-Designed" units include Hi-Boilers, Hi-Furnaces, coil and tank-type Water Heaters, and standard-design Oil Furnaces.

THIS WHISPER-QUIET WALL-FRAME FOR SMALL HOMES

The famous Wall-Flame Burner—especially designed for unit operation and equipped to burn the new catalytically-refined fuel oils—is the heart of every Timken Silent Automatic "Duty-Designed" oil heating unit.

Models shown (OBD-50, OBA-65, OBG-65) illustrate three types of heat exchangers—copper coil, cast iron and steel.

TIMKEN SILENT AUTOMATIC OIL HEAT

TIMKEN SILENT AUTOMATIC DIVISION
The Timken-Detroit Axle Company, Jackson, Michigan
SPOT SASH CORD

Simplicity — no other device is as simple or as permanently efficient for balancing double-hung windows as the time-tested combination of Spot Cord, pulleys and weights. Perfect and permanent balance and noiseless operation are assured. There is nothing to get out of order.

The part that takes the wear is the cord — and Spot Sash Cord will last almost indefinitely. It is made of extra quality fine cotton yarn, firmly and smoothly braided, and guaranteed free from imperfections.

Identified by our trade-mark, the Colored Spots (Reg. U.S. Pat. Off.) Send for sample card with table showing right sizes for different weights.

SAMSON CORDAGE WORKS
BOSTON 10, MASS.

American Builder, March 1949

The President's Column
(Continued from page 122)

life. One of the most effective weapons against an adversary is to be informed of his plan of attack. As members of the National Retail Lumber Dealers Association, we are furnished with detailed and authentic information about what is taking place in business and government. To be forewarned is to be forearmed!

With this information we must start an educational campaign among our friends, and business acquaintances, warning them of what lies ahead, if the President's suggested program is carried through. We must immediately contact our Senators and Representatives, telling them that we are opposed to any and all socialistic legislation. We should also urge our friends to do likewise because all industry will be affected. We can be assured that the people opposed to our way of thinking will be doing this, and we must convince our legislators that the majority of Americans are not ready to toss democracy aside. This will not be an easy undertaking and it is not one that can be carried on by any one individual or organization. It can and will be accomplished through organized effort, with everyone doing his part.

The National Retail Lumber Dealers Association is the natural and logical medium through which to work, but it must have the support of every dealer in the country. Let me urge you to contact the secretary of your regional association and find out what you can do to help. Only in this way can your business be preserved for yourself and your family and not for some government agency.

Urban Land Institute
Re-elects Seltzer Head

RICHARD J. SELTZER, Philadelphia realtor, has been re-elected president of the Urban Land Institute. Also re-elected was Foster Winter, Detroit, vice-president, who is treasurer of the J. L. Hudson Co. Herbert U. Nelson, Chicago, executive vice-president of the National Association of Real Estate Boards, was re-elected secretary, and L. D. McKendry, Chicago, was re-elected ULI treasurer. He is vice-president of the Chicago Title and Trust Co.

Primary objectives of the Institute for 1949 will emphasize research on problems connected with the development of our rapidly growing suburban communities and shopping centers, Seltzer said. Problems involved will be traffic, parking, and decentralization of central business areas, and plant locations in urban areas.
NOW electronic control for radiant panel heating

S E N D F O R T H E S E 3 B O O K S - F R E E -

**Honeywell** Electronic Moduflow is now available. This simple and inexpensive control system, with its sensitivity and extreme dependability is now available for all types of automatic heating systems including radiant panel heating, either floor, wall or ceiling.

The three books pictured are available upon request. They give you factual information about this newest and finest Honeywell control system, in addition to zone and individual room control systems for domestic applications.

Send for your copies today and learn all about Honeywell’s newest control systems and why you’ll want to use and specify them for all their many applications.

**Electronic Moduflow is the Answer**

**MINNEAPOLIS-HONEYWELL REGULATOR COMPANY**
2604 Fourth Avenue South, Minneapolis 8, Minnesota

Please send me the 3 free books on Honeywell Electronic Moduflow, Zone Control, and Individual Room Control.

Name:

Address:

City: ___________________________ State: ________

72 BRANCHES FROM COAST TO COAST WITH SUBSIDIARY COMPANIES IN: TORONTO • LONDON • STOCKHOLM • AMSTERDAM • BRUSSELS • ZURICH • MEXICO CITY
ACCURATE and TOUGH is the MASTER TUFBOY!

Buy one now!

Mechanics and craftsmen will welcome the Master Tufboy’s accuracy and rugged construction. Its blade, of the finest tempered spring steel, has clearly etched graduations and its case is made of the toughest chrome-plated zinc alloy which will withstand the roughest kind of treatment. You will find the Master Tufboy at your local hardware or building supply dealer or if you prefer, use the coupon below.

**WOOD AND STEEL TAPE RULES**

<table>
<thead>
<tr>
<th>Master Rule Mfg. Co., Inc.</th>
<th>P-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>201 Main Street, White Plains, N. Y.</td>
<td></td>
</tr>
<tr>
<td>Gentlemen:</td>
<td></td>
</tr>
<tr>
<td>I enclose $1.35 for the 6 ft. Tufboy</td>
<td></td>
</tr>
<tr>
<td>I enclose $1.65 for the 8 ft. Tufboy</td>
<td></td>
</tr>
<tr>
<td>Name ...........................................</td>
<td></td>
</tr>
<tr>
<td>Address .......................................</td>
<td></td>
</tr>
<tr>
<td>City ...........................................</td>
<td></td>
</tr>
<tr>
<td>State .........................................</td>
<td></td>
</tr>
</tbody>
</table>

**Two Mixers Every Builder Should Have**

**3½ S NON-TILT**

Improved Gated Batch Hopper with cam-operated shaker gives you power loader speed without its cost. 100% Timken equipped. Drum tracks are fully machined.

- Positive, no-slip, no-thrust spur gear drive.
- Separate, self-cleaning blades and buckets mix and remix batch thoroughly in less time!
- Vertical water tank accurately calibrated.

**SUPER "6" WONDER**

Built in 6 and 10 cu. ft. sizes with telescoping axle. Special caster-type wheels available which permit mixer through 32" door. Plus many other features. A better mortar mixer any way you look at it!

- Often pays for itself on first job.
- Triple mixing hoes with exclusive adjustable blades assure perfect mixing.
- Mixes cement mortar, patent plaster with hair or fiber, etc.


**WOODLIFE** the original toxic water repellent

Give your customers the best. WOODLIFE means protection against decay, termites—and moisture absorption, the cause of warning, shrinking, swelling and checking. A few pennies spent for WOODLIFE treatment assures lifetime protection and customer satisfaction.

WOODLIFE is Time-Tested... used by leading woodwork mills since 1935.

Specify WOODLIFE protection, NOW!

As seen in Better Homes and Gardens.

Protection Products Mfg. Co.
Research Laboratory and Plant KALAMAZOO, MICH.

**TOPS FOR DEPENDABILITY!**

CONSTRUCTION MACHINERY CO.'S.

WATERLOO, IOWA, U.S.A.
BUILD THE **Double Duty WAY**

WITH **INSULITE**

**APPROVED Insulite Wall of Protection**
Control Moisture Condensation

When frost forms inside the stud space, that means irate customers and trouble for you as the builder. To avoid this grief *seal the warm side* and *vent the cold side* of walls. (Proof available on request.)

How does Insulite fill this bill?

1. Insulite Sealed LOK-JOINT LATH with vapor barrier on the stud side insulates and effectively retards vapor travel.

2. BILDRITE SHEATHING insulates and at the same time permits satisfactory escape of vapor toward the outside.

The two in combination give you ideal insurance against moisture condensation and frost in walls.

*Insulite* is a registered trade mark, U.S. Pat. Off.
Everyone knows Russwin quality. For years the better homes have been equipped with this distinctive hardware. Where but in a Russwin Tubular Lock and Latch, for example, would you find all-steel rack and pinion construction — assuring smooth, positive, trouble-free action. Easy to install? It wouldn’t be Russwin hardware if it weren’t. And, once installed, you can forget these tubular locks and latches — no costly call-backs for service and adjustments. That’s Russwin quality, again.

Your RUSSWIN dealer has them. See him today. Buy the builders’ hardware that builds good will — Russwin ... it’s backed by over a century of experience. Russell & Erwin Division, The American Hardware Corp., New Britain, Conn.
ONLY WELDWOOD FIRE DOORS GIVE YOU THESE 8 UNIQUE ADVANTAGES

1. Increased Safety
   The only wood-faced fire door which bears the Underwriters' label. All Weldwood Fire Doors are approved for class B openings.

2. Beauty
   Because of their beautiful wood faces, Weldwood Fire Doors harmonize perfectly with any decorative scheme.

3. Durability
   The Underwriters' Laboratories tested a Weldwood Fire 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.

4. Dimensional Stability
   Weldwood Fire 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.

5. Light Weight
   At last . . . a real fire door that is not heavy or unwieldy. A standard 3 x 7 door weighs approximately 80 lbs.

6. Vermin and Decay Proof
   The mineral composition core used in Weldwood Fire Doors is permanently resistant to fungus, decay, and termites.

7. High Insulating Qualities
   Another noteworthy characteristic of the core is its high insulating value over a wide range of temperatures. It is efficient against temperatures from freezing up to that of superheated steam.

8. Moderate Cost
   Investigate these doors for use on your next job. You will be pleasantly surprised at the low initial cost, and the minimum of maintenance required.

NOW...plan on permanent fire protection plus the rich beauty of real wood! Here at last is an absolutely fire-safe door that is also a decorator's delight.

Thanks to the handsome hardwood facing that distinguishes this unique Weldwood Door, you can plan on bringing extra beauty to every room. Yes, these beautiful new Weldwood Doors help you to carry your decorative theme throughout the building . . . while giving you lasting fireproof construction!

Write today for complete information. You'll also want full details about the new Weldwood Flush Veneer Door for use where absolute fire protection is not required.

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

New Improvements in Fyro-Place

Save Masons Time
Improves Appearance

1. Ductmakers which
save masons time and
materials (up to 40 bricks)
will provide unobstructed
flow of air.

2. Feather-light insula-
tion in blanket form
for quick application, does
not fall apart, saves labor.

3. Expansion
channels which
eliminate the ugly
joint between face
brick and fireplace unit,
due to the masonry drying
and falling out.

4. Flexible metal
stop to attach to
apron of fireplace
unit prevents insula-
tion from working down
and showing from front.

FYRO-PLACE is the fireplace form that saves you up to 16 hours of labor, plus the cost of damper, firebrick, etc.—often offsetting its cost. It creates good will for you because the satisfied owner gets a warm-air-circulating fireplace instead of a smoky, drafty old-fashioned one.

Write for our Free 32 Page Book — "100 Fireplace Ideas"

Win some of the prize money we are giving away.

A $50 CHECK EVERY MONTH

is given for the best looking or most interesting fireplace built around a Fyro-Place. Simply send us snapshots of your best Fyro-Place installations.

PRICE FIREPLACE HEATER & TANK CORPORATION
87 Austin Street, Buffalo 7, New York

Dealer Review
(Continued from page 186)

a surprise presentation, R. F. McCrea, secretary-manager of the lumber dealers association, was presented with a watch commemorating the completion of 30 years of faithful service to the association. The presentation on behalf of the members was made by John B. Millen, Greensburg, a director and past-president of the association. The 1950 annual meeting will again be conducted at the William Penn Hotel in Pittsburgh. Entertainment at the convention included "Exhibitors' Night" Wednesday evening; a banquet, floor show and dance Thursday evening and ladies' luncheon Thursday noon.

Michigan

The Michigan Retail Lumber Dealers Association 60th annual convention was conducted at the Panthlnl Hotel and Civic Auditorium in Grand Rapids February 2.

Axel Becker

3 and 4. Total registrations exceeded 2,000 and 106 exhibitors drew the attention of delegates.

Axel Becker, Wolverine Lumber & Supply Co., Monroe, was elected president to succeed Edwin F. (Continued to page 192)
New
NEVER-STAIN
ALUMINUM NAILS

- Will never streak or stain finished surfaces, such as painted house siding.
- Made in many sizes and types for use wherever nail stain is objectionable.
- Light in weight — almost three times as many per pound.
- Nichols Aluminum® Nails are etched from head to tip for great holding power. Easy to drive. Billions have been used.
- Available anywhere in the United States.

Consult your Architect or Builder
He is qualified to recommend money-saving applications for Nichols Never-Stain Aluminum Nails.

TO HELP YOU SELL NICHOLS
"Never-Stain" Aluminum Nails
Over 11,000,000
readers who are potential customers of yours will see this ad in the March 1949 issues of

LIFE

Better Homes
Country Gentleman

Vice President and
General Sales Manager

NICHOLS WIRE & ALUMINUM CO.
General Office and Factories — Davenport, Iowa
ALUMINUM IS NOT A SUBSTITUTE!

* All Nichols Never-Stain nails are made from an aluminum alloy conforming to Federal Specification QQ-A-325.
For a long time architects and builders have been demanding an asphalt shingle with these features: Greater thickness, greater rigidity, greater protection through increased headlap and a longer life span.

**HERE IT IS...** "The Architect", a new shingle designed especially by Bird & Son to meet the most exacting specifications:

- **Thick massive butts...** approximating slate or wood shingles in caliper... heavy shadowlines.

- **Weight 290 pounds per square...** the perfect balance of greater saturation and heavier coating of life-giving asphalt.

- **Triple coverage, 5" headlap...** Major factors in long-lived protection against standing snow and driving winds and rains.

- **Surfaced with larger mineral granules...** outstanding appearance, better adhesion, longer surface protection.

- **Greater rigidity because of the heavier felt base, more asphalt and heavy, coarse mineral granules.**

- **Cost of "The Architect" is in the asphalt shingle price range...** a prime selling feature for this rich, luxurious shingle.

Write today for folder showing the wide variety of colors and blends.

_Bird & Son, inc., East Walpole, Mass._

---

**AMERICAN Roof Truss Co.**

William and Raymond Waddington
6856 Stony Island Ave., Chicago 49, Illinois... PLaza 2-1772

---

**CONTRACTORS! CARPENTERS! DECORATORS!**

_American Roof Truss Co._

William and Raymond Waddington
6856 Stony Island Ave., Chicago 49, Illinois... PLaza 2-1772

---

**THE JITTERBUG—**Portable Electric Sander was made EXPERIALLY for you.

Sands DRY WALL CONSTRUCTION perfectly—unexcelled on interior finish, cabinets, treads, and risers—a fine edging sander equally good on new and old work.

Patented compound motion eliminates hand sanding—sands closed corners CLEAN.

See your Dealer or write for complete information and Free Trial Offer—Price $87.50 FOB, Menominee, Michigan.

_A American Roof Truss Co._

William and Raymond Waddington
6856 Stony Island Ave., Chicago 49, Illinois... PLaza 2-1772

---

**JITTERBUG SANDER COMPANY,**

Inc.

Subsidiary L. E. Jones Co.

Menominee, Michigan

---

**American**

**offers both**

**ARCHES* BEAMS* BOWSTRINGS**

A wide selection of popular roof designs... The best in nailed-and-bolted bowstrings, crescents and belgians, plus glued beams, trusses, and arches. (Superior glue process—developed in our newest plant... Controlled temperature, uniform pressure, during setting period.)

_Write for literature that describes the most widely used trusses—AMERICAN!_

---

**AMERICAN Roof Truss Co.**

William and Raymond Waddington
6856 Stony Island Ave., Chicago 49, Illinois... PLaza 2-1772

---

**CONTRACTORS! CARPENTERS! DECORATORS!**

_American Roof Truss Co._

William and Raymond Waddington
6856 Stony Island Ave., Chicago 49, Illinois... PLaza 2-1772

---

**THE JITTERBUG—**Portable Electric Sander was made EXPERIALLY for you.

Sands DRY WALL CONSTRUCTION perfectly—unexcelled on interior finish, cabinets, treads, and risers—a fine edging sander equally good on new and old work.

Patented compound motion eliminates hand sanding—sands closed corners CLEAN.

See your Dealer or write for complete information and Free Trial Offer—Price $87.50 FOB, Menominee, Michigan.

_A American Roof Truss Co._

William and Raymond Waddington
6856 Stony Island Ave., Chicago 49, Illinois... PLaza 2-1772

---

**JITTERBUG SANDER COMPANY,**

Inc.

Subsidiary L. E. Jones Co.

Menominee, Michigan

---
One hand opens and closes Mesker Casements the easy modern way. Gears do the hard work — you just twirl the handy rotor handle.

No tugging — no lifting — no struggling as with old-style windows. Mesker Steel Casements cannot swell, warp, shrink or stick.

the mark of modern post-war construction...

Put greater sales appeal in the houses you build by equipping them with Mesker Steel Casements. Their versatility adapts easily to any architectural style, traditional or modern. The charm of their graceful, slender lines adds distinction that marks truly post-war construction. See our catalog in Sweet's Builders File, or write us for your own copy.

MESKER BROTHERS METAL WINDOWS
4342 GERALDINE AVE., ST. LOUIS 15, MO.
Dealer Review

(Continued from page 188)

Westover, Westover-Kamm Co., Bay City. Other 1949 officers are: Lester Essenburg, Essenburg Building & Lumber Co., Holland, first vice president; Walter Peacock, Peacock Lumber Co., Port Huron, second vice president; Norman B. Cove, Hager & Cove Lumber Co., Lansing, reelected treasurer; Hunter M. Gaines, Lansing, reelected secretary. Mr. Westover was named dealer-director to NRLDA.

The entertainment program included the "Old Guard Dinner" and salesmen's midnight frolic Wednesday evening; the annual banquet and dance Thursday evening; a luncheon and evening entertainment for ladies Wednesday.

Illinois

An all-time high in attendance was recorded at the 59th annual meeting of the Illinois Lumber & Material Dealers Association at Hotel Sherman, Chicago February 8, 9 and 10 when a total of 4,032 persons registered. Attendance consisted of 1,953 dealers, 331 ladies, 1,106 exhibitors and 642 guests. More than 150 attractive exhibits taxed the hotel's facilities.

Election of officers resulted in the selection of John W. McConnell, of Woodstock, to serve as 1949 president, succeeding James L. Watson of Troy. W. Lindley Huff

John W. McConnell

American Builder, March 1949.
RADIANT FLOOR PANEL HEATING plus
FILTERED CIRCULATING WARM-AIR

Both in one unit—At less than the cost of conventional heating!

The INTERNATIONAL WARM-AIR AUTOMATIC OIL or GAS FURNACE

BASEBOARD OR FLOOR REGISTERS UNDER WINDOWS
COMPACT 2'x2' FITS IN CLOSET OR NICHE
UNDER-FLOOR DUCTS AT OUTSIDE WALLS

FOR RANCH-TYPE or BASEMENTLESS HOMES...

A truly great advance in modern heating engineering—that really overcomes the basic problems of home heating. Underfloor ducts eliminate cold floors and chilly walls... Base register banishes cold air cascading down windows... Elimination of air stratification assures uniform temperatures at all levels. Low cost installation—economical operation.

Send for literature giving details and typical layouts.

INTERNATIONAL OIL BURNER CO.
Park & Spring Aves. St. Louis 10, Mo.
(Distributors—Some protected territories still open—Inquire)
All 4 IN La Belle Doorknob Lock

Widen your markets with this new hardware staple that ends the need for lockplates and old-fashioned keyholes. The compact, attractively styled LaBelle, with a tumbler cylinder lock built into its outer knob, is non-jamming and spins like a bearing when locked. You can easily sell it for outside and inside doors of new building or remodeling projects — homes, schools, apartments and government jobs.

La Belle Industries, Inc.
Oconomowoc, Wisconsin

The fastest way to tack Insulation...

Between studs it is easy to apply insulation with the Hansen. Simply place insulation in position, hold it with one hand and tack it with the other. Between rafters, overhead or in other hard-to-get-at positions, Hansen speeds the application.

With the strong gripping power of Hansen staples, material is held closer to frame, and less likely to buckle. Speedy, one-hand operation leaves other hand free to hold materials. REQUEST FOLDER.

NEW EXCLUSIVE FEATURE

Mr. Builder: Here is something new that you can actually demonstrate to the prospective home owner. The new nine position control switch enables the housewife to choose the desired rate of ventilation as easily as she controls the thermostat on her kitchen stove. Send this coupon to obtain information about this new feature found only on the Model 210 Blo-Fan.
and you’ll choose CURTIS Silentite!

In a 40-mile wind you’d soon know the difference between Curtis Silentite and ordinary windows. For under such conditions, Silentite allows 20% less air infiltration than the famous original Silentite—America’s first “insulated” window.

There are scientific reasons for Silentite’s superior weathertightness. “Floating” weather-strips press snugly against the side of the sash, yet allow easy movement. Gone is the conventional check rail—in its place a new type rail with specially designed weather-strip members. Bronze spring leaf weather-stripping at the head and sill complete this superior window design. And Silentite is a wood window for maximum insulation value and reduced heating costs.

Silentite Windows are easy to operate—have no weights, cords or pulleys. They have the streamlined beauty that comes from slender mullions and wide glass areas. Toxic and water-repellent treated, Silentite windows assure lasting value in any size or type of home,
find it difficult to maintain satisfactory financing connections.

In the future dealers who want to maintain a position "in good standing" with their financing connection should inspect promptly all complaints that are called to their attention and report such action at the time they take on each complaint to the lending institution. They should also endeavor to persuade any delinquent borrower, on one of the jobs they have sold, to resume and regularly continue his payments. Otherwise, when their delinquencies exceed the bank's maximum limit (which is usually 3 percent) they may find that further loans on their jobs will not be considered.

Not only the lending institutions but also FHA itself, which in turn insures the loans approved for the dealer, are most important factors in the maintenance of a "satisfactory financing connection." When too much trouble develops over a period of time with a particular dealer's paper, FHA has in some instances put that dealer on their "black list" i.e., they notify all lending institutions that no further loans will be insured by FHA for that dealer, directly or indirectly.

Our purpose in covering this subject so frankly is because we too, realize that without a continuing connection for financing, no dealer can succeed in the siding business. Unless dealers can finance their insulating siding jobs, they cannot continue in business—so it is to our advantage, as well as that of our dealers, for us to emphasize the kind of cooperation lending institutions are now requiring of the dealers with whom they are willing to continue to do business.

As we see this situation, it is not a question of whether or not the lending institutions have a right to insist on their present cooperation requirements from the dealer. The fact is, they do, and it is this condition they are willing to continue to live with, at least for the immediate future.

We suggest, therefore, that you discuss with your lending institution, if you have not done so, the type of cooperation it is expecting from you, in order to ensure that you receive the best service possible from us. We shall be glad to cooperate in any way that will make it easier for you to do business with us.

Dealer Credit Rating—

(Continued from page 148)

find it difficult to maintain satisfactory financing connections.

In the future dealers who want to maintain a position "in good standing" with their financing connection should inspect promptly all complaints that are called to their attention and report such action at the time they take on each complaint to the lending institution. They should also endeavor to persuade any delinquent borrower, on one of the jobs they have sold, to resume and regularly continue his payments. Otherwise, when their delinquencies exceed the bank's maximum limit (which is usually 3 percent) they may find that further loans on their jobs will not be considered.

Not only the lending institutions but also FHA itself, which in turn insures the loans approved for the dealer, are most important factors in the maintenance of a "satisfactory financing connection." When too much trouble develops over a period of time with a particular dealer's paper, FHA has in some instances put that dealer on their "black list" i.e., they notify all lending institutions that no further loans will be insured by FHA for that dealer, directly or indirectly.

Our purpose in covering this subject so frankly is because we too, realize that without a continuing connection for financing, no dealer can succeed in the siding business. Unless dealers can finance their insulating siding jobs, they cannot continue in business—so it is to our advantage, as well as that of our dealers, for us to emphasize the kind of cooperation lending institutions are now requiring of the dealers with whom they are willing to continue to do business.

As we see this situation, it is not a question of whether or not the lending institutions have a right to insist on their present cooperation requirements from the dealer. The fact is, they do, and it is this condition they are willing to continue to live with, at least for the immediate future.

We suggest, therefore, that you discuss with your lending institution, if you have not done so, the type of cooperation it is expecting from you, in order to ensure that you receive the best service possible from us. We shall be glad to cooperate in any way that will make it easier for you to do business with us.
Now, when every second counts—now, when every construction dollar must produce full value—methods of cutting costs without sacrificing quality take on new importance. That's why General Electric PVX® nonmetallic sheathed cable has become such a favorite.

PVX goes in fast—goes in to last. The tough, smooth, moisture- and flame-retardant braid covering makes for easy pulling. Its light weight makes PVX easy to handle. Its small over-all diameter permits installation in tight spots. And PVX strips freely, quickly, leaving a clean conductor for fast connection.

To get the rest of the money-saving facts on PVX and many other items in the General Electric wire and cable line, send for a free copy of the 42-page book Building Wires, Cables, and Cords for every purpose. Address Section W23-32, Construction Materials Department, General Electric Company, Bridgeport 2, Connecticut.
NEW, SUPER-TOUGH
Superlite Panels

Baked surface resists wear

Superlite Panels now are surfaced with a new high-gloss, plastic finish. BAKED ON for extra lustre and extra resistance to abrasion.

New rounded-edge score lines mean less dust collection and greater ease in cleaning. Just a wipe of a damp cloth over Superlite Panel's high-gloss surface and they're glistening again!

Large sheet size means reduced application cost. And no fuss and muss as in the application of plaster or similar materials!

Superlite Panels for interior walls and ceilings, either in new construction or renovation, are available in eleven pleasing colors.

Your customers will be pleased with Superlite Paneling because of its beauty and durability. Ideal for kitchens, bathrooms, game rooms, restaurants, hospitals—and other institutions.

Use the coupon below for descriptive literature and other pertinent information.

Superlite Panels are sheets of Masonite Presdwood, surfaced with a high-gloss, baked-on plastic finish. They are available in sheet sizes 4 ft. wide, and 4 ft., 6 ft., 8 ft. and 12 ft. long. These panels are finished three ways: plain colors, tile design (4" x 4" square) and Leveline (horizontal lines on 8" centers). A range of eleven colors (including black and white) is offered, with a wide variety of colors in the score line.

For an A-1 brick construction job—every time...

Here's the answer to every brick-building problem—a manual that shows you step-by-step, each process of masonry construction, from the foundations to the finishings. It helps you by supplying the specific working aids you need in selecting materials—preparing mortar—laying construction masonry—eliminating faults and defects—estimating quantities and costs. It includes the design and construction of every type of brick wall—covers chimneys, fireplaces, porches, walls and outdoor barbecues.

- BRICK STRUCTURES - HOW TO BUILD THEM

Revised and edited by RALPH P. STODDARD
Eleventh Edition

169 pages, 100 figures, 10 tables, $2.20

Hundreds of construction aids that help insure speed, quality and economy

American Builder, March 1949.
WARE
Aluminum WINDOWS

LIGHT YET STURDY
CHEERFUL SILVERY APPEARANCE
NO PAINTING—NO RUST
EASILY OPERATED FROM THE INSIDE
STORM-TIGHT

HEAVIER VENT SECTIONS • FLASH WELDED CORNERS
EXTENSION OR BUTT HINGES • STAINLESS STEEL PINS & WASHERS
CHOICE OF BUTTERFLY OR CAM LOCKING HANDLES

Manufactured by WARE LABORATORIES, INC. in Miami, Florida
GENERAL OFFICES AND SALES OFFICES: 1827 Delaware Parkway, Miami 35, Fla. • NEW YORK OFFICE: 21 West Street

CHOICE OF BUTTERFLY OR CAM LOCKING HANDLES

The optional choice of butterfly type for use with venetian blinds or the standard cam locking handles gives you a freedom of choice.

The Ware Mullion with self-aligning fit, bulb weathering and 3/4 inch web is exclusive with Ware.

The Ware Channel and Strike are of Stainless Steel, assuring long wear and freedom from rust and corrosion.

CHOICE OF BUTT OR EXTENSION TYPE HINGES

The sturdy Ware butt hinge with stainless steel bushings, pin and washers or the convenient Ware extension hinge with stainless steel pins and washers are optional.
Heat quickly directed through scientifically designed louvers adds to the cozy radiant glow from this new Royal Gas Wall heater. Safety features include removable valve control handle, and sturdy but easily removable dress guard. Polished Armco Aluminized Steel inner unit and louvers permanently resist corrosion and tarnish, add heat reflectivity and increase efficiency. Flush to wall frame regularly furnished in baked on white Dupont Dulux finish. Available in porcelain enamel or chrome. For bathrooms, kitchens, dining nooks, utility rooms and other uses. Takes 12 1/2" x 20" wall space, depth 3 1/4".

More Heat, Better Distributed

Diagram shows how louvers direct heat out into room—not up. Helps keep walls clean. Safe, low in cost, economical in operation.

Developed by Royal

Royal Recessed Gas Wall Heater

Chattanooga Implement & Manufacturing Company
Chattanooga, Tennessee

Get the Facts!

Chattanooga Implement & Mfg. Co., Chattanooga, Tennessee

Please send:
- Specification sheet and descriptive literature on Royal Model 202
- Address of nearest Royal Distributor

Firm Name
Address
City State
Requested

Portland Builders Will Erect Small Homes Under FHA's New Section 203D

A number of Portland, Ore., builders including Carl & Ted Ashbah and the Edwin Sandberg Co., will erect small homes under FHA's new Section 203D mortgage finance. Plan of the small house shown here is one of the first to be used in constructing homes with the new financial arrangement. Down payment on this house will be $350, and monthly payments, including taxes and insurance, will be less than $39 extended over a period of 30 years.

Homes constructed with this plan will carry a $6,000 loan, including $500 for the lot. Arrangements were made by the Brice Realty Co., Portland, to finance the houses so that five of the major builders in Portland will build the house within 15 miles of the heart of the city, on individual lots.

The house can be readily expanded at a later date. Hardwood floors are

Attention Dealers, Builders, and Contractors

The most beautiful all chrome finish fluorescent medicine cabinet with plate engraved Everlast mirror, all General Electric equipment, plastic caps, Underwriters' approved, retail at $45.75. This medicine cabinet unit is built for the purpose of saving all wiring and fixtures necessary for the bathroom so it contains all the wiring and switches necessary and also a convenient outlet for electric razor or any other use. Each fixture has a separate switch so that you may light one or two lights or no lights at all and will provide sufficient light for any bathroom without any extra fixtures. The only thing necessary is to connect the cabinet with the main line. The price of this cabinet is very reasonable and at the same time it covers all the cost of wiring and fixtures for the bathroom.

Manufacturers representatives and distributors invited.

Manufactured by

Fluorescent Lighting Co.
Monticello, N. Y.

Brown's

Supercedar

Nationally Advertised

Red Cedar Closet Lining

Guaranteed 90% Red Heart or Better

Only Supercedar is of the same uniform high quality standard that guarantees every package to contain 90% Red Heart or better, and 100% oil content which produces the pleasing aroma.

Sealed Packaged Labelled

More home builders are specifying cedar lined closets today than ever— and Brown's Supercedar is nationally advertised to thousands of new home prospects, architects and builders. Supercedar closet lining is surfaced, tongue and grooved, ready to install with no waste. Packaged and sealed with the Geo. C. Brown label and guarantee, famous since 1886.

Product of

GEO. C. BROWN & CO.
Greensboro, N. C.
Established 1886

Largest Manufacturers of Aromatic Red Cedar in the World
You can be a 49-er and make a discovery too! Discover how much easier and faster your houses sell when you use Pratt & Lambert Paint and Varnish. Here is distinctive color and dependable quality, backed by one hundred years of experience in paint manufacturing.

Home buyers are quick to recognize the significance of the Pratt & Lambert name. Let these fine products do your prospecting for you. They will open up new frontiers in sales.

Pratt & Lambert-Inc., 80 Tonawanda Street, Buffalo 7, N. Y. In Canada, 6 Courtwright Street, Fort Erie, Ontario.

1849 — Pratt & Lambert Hundredth Anniversary — 1949
After you experience the ease and speed with which a MallSaw cross-cuts, rips or bevel cuts rough or dressed lumber, you will never be satisfied with any other way of sawing. The MallSaw's quick, accurate cuts assure square board ends, better fitting members and a better building.

Your MallSaw will also cut metal and composition materials with a friction blade, hardened steel, glass, tile, porcelain and concrete with an abrasive blade. All three models operate from any regular 115-volt AC/DC or 130-volt AC/DC outlet, are quickly adjusted for depth, and bevel cut to 45 degrees. Available with metal carrying case, lubricant, cord and plug.

The new etched mirror design follows the curves of the Venetian mirror top.

The bar spring door stop resists jarring, protects contents and mirror.

MODEL 70—2½" capacity 7¼" blade
MODEL 86—2½" capacity 8½" blade
MODEL 128—4½" capacity 12" blade

Write for FREE booklet "Mall Portable Power Tools" and name of nearest dealer.

THE MALL TOOL COMPANY
7737 South Chicago Avenue, Chicago 19, Ill.
Johns-Manville Asbestos Flexboard is STRONG AND TOUGH

One man can handle the big sheets

Exclusive J-M manufacturing process makes this fireproof, rotproof building board so strong and tough that it can be lifted and handled by one man without cracking or breaking. You save on time and labor, and avoid waste.

It can be nailed close to edge

Another advantage of Flexboard—you can drive a nail even close to the edge of the sheet without cracking or chipping... no drilling required!

Send for this FREE Handbook—contains complete information about cutting and working asbestos Flexboard. Easily understood drawings show how to apply it indoors or out... how to handle the joints, door and window openings, ceilings, and floors. Your copy is ready. Ask for the Flexboard Handbook. Address Johns-Manville, Box 290, New York 16, N. Y.

Still another exclusive feature... Flexboard is so tough and flexible it can be bent on either axis to a degree unmatched by any other product of its kind... a great advantage where curved surfaces are required.
Hundreds of thousands of PYROFAX Gas users know that it is the cleanest, hottest, finest fuel obtainable. To the prospective buyer PYROFAX Gas means modern cooking, modern refrigeration, modern water heating at its best.

Home Buyers prefer gas—the choice of two out of three. Install PYROFAX Gas and speed the sale!

PYROFAX Gas is the modern fuel for homes beyond the gas mains. It boosts their value. It's economical, efficient, convenient.

PYROFAX Gas can be installed quickly and easily. It is piped through the exterior wall from the twin steel cylinders directly to the range, water heater, refrigerator or other gas appliance.

Nationally Advertised Appliances

Magic Chef ranges, Servel refrigerators, Ruud and Bryant water heaters, and other gas appliances are available for use with PYROFAX Gas.

L. M. Cassidy Re-elected

L. M. CASSIDY, vice-president of sales of Johns-Manville Corp., has been re-elected chairman of the board of governors of the Asphalt Roofing Industry Bureau.

Firm Announces Price Reductions of Steel Window Well Walls

PRICE REDUCTION in the cost of steel window well walls for basement window openings is announced by the Saint Paul Corrugating Co., Saint Paul, Minn. The action, as explained by the officers, is their contribution toward reducing home-building costs. This company has been in production of a nationally accepted product since 1938, and their plant has been in operation for 64 years.

Window wells made by this firm are Lux-Right, originated by the Saint Paul Corrugating Co.
The greatest single, concentrated advertising campaign in laundry equipment history is now running in leading newspapers, magazines and on the radio. Already, popular Westinghouse Laundromats, automatic washers and Clothes Dryers are in even greater demand.

Get on the band wagon. Install the Westinghouse Laundry Twins in your new houses. You'll sell them faster and make more money.

Tell your prospects that the Laundromat and Dryer come with the house at little increase in down payment and monthly installments. It's a sales clincher that's hard to beat. This completely automatic laundry team requires only six feet of wall space. Easily installed. They eliminate the need to provide extensive laundry and drying areas, thus giving more space for living. Learn how other Westinghouse wired-in, plumbed-in appliances stimulate house sales. Send coupon, today.

Westinghouse Electric Corporation
Appliance Division—Mansfield, Ohio
Please send me your booklet, "How to Sell Houses Faster".
Name ____________________________
Address __________________________
City & State ________________________

Most Advertised! Most Wanted!
Install Westinghouse Automatic Laundries and Sell Houses Faster
You know that it takes modern features to sell a home today—and you work hard to see that the houses you build are up-to-the-minute. But what about their heating plants? Do you know that comfort comes first, that a modern heating plant and a well-heated home will make firm friends faster than any number of gadgets?

new HEIL units give you the LAST WORD in heating

New Heil units have every modern heating feature—uniform heating, higher efficiency, quieter operation, better looks. Heil means quality to the millions of people in over 50 major industries regularly supplied by the Heil Co., with its diversified line of products. When you install a Heil Winter Air Conditioner, or a Heil Boiler-Burner Unit you can be sure of a delighted buyer. You know that the house will be comfortable, that there will be no complaints about high fuel bills. It's a sure way to satisfied owners, and satisfied owners are your best prospect-getters.

There's a HEIL unit for every house

You can select from a complete size range in Heil Oil-Fired Boiler-Burner Units, and Oil-Fired or Gas-Fired Winter Air Conditioners. There's no need for an oversize unit. Factory wiring and pre-assembled units cut installation time, to save money on the job. Any way you look at it, your homes will be better—and better buys—with Heil Automatic Heat.

You'll be interested to know about two special propositions Heil has for builders. For more details, write Dept. 8239, today.
That's right, mister!

From 248 basic chassis models, your Dodge dealer will recommend a "Job-Rated" truck that will fit all of your requirements.

Your Dodge "Job-Rated" truck will fit the size and type of your loads... and your operating conditions. It will be "Job-Rated" throughout to give you maximum economy, dependability, and long life.

Every "Job-Rated" truck has the right one of 7 "Job-Rated" truck engines... for top efficiency and greatest economy. Every other unit... from engine to rear axle... is engineered and built to fit your job, save you money.

Let your Dodge dealer tell you the whole "Job-Rated" story. You'll quickly realize his story makes sense! And remember... only Dodge builds "Job-Rated" trucks.
WATCH CELOTEX IN '49...

CELOTEX IS ON THE MARCH

with the greatest advertising drive in its history to increase business for builders and contractors and the entire building industry
1949 bids fair to be the year of decision for the building industry. Everyone knows there is a big job to be done if the high level of building activity is to be sustained and advanced.

Celotex has made its decision! As our contribution to the cause, we are going all out in '49 with the greatest advertising and sales promotion campaign in Celotex history.

And you, Mr. Builder, are one of the key figures in the whole program.

In a series of smashing 2-PAGE SPREADS that will appear in THE SATURDAY EVENING POST, BETTER HOMES AND GARDENS, SUCCESSFUL FARMING, PROGRESSIVE FARMER, and other leading magazines—Celotex will tell millions of Americans that they not only can but should build or remodel now!

This compelling advertising is designed to stimulate building activity and directly benefit builders, contractors, and everyone else who is a part of the great building industry.

Yes, Celotex is on the march in full force in 1949. We feel certain that you, the builders and contractors of America, will join with us—and that together, we will forge ahead to a new level of achievement and prosperity for the building industry, and ourselves!

The Celotex Corporation, Chicago 3, Illinois

Build Strong for the Future . . . Build with

CELOTEX
BUILDING MATERIALS

INSULATING BUILDING BOARDS • ASPHALT COATED INSULATING SHEATHING • INSULATING LATH
INSULATING INTERIOR FINISHES • ROCK WOOL INSULATION PRODUCTS • TRIPLE-SEAL ROOFING
GYPSUM WALLBOARD • GYPSUM LATH, PLASTER • CEMESTO • INSULATING SIDINGS
ACOUSTI-CELOTEX • FLEXCELL EXPANSION JOINTS • HARD BOARD
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.

The PARKS Heavy-Duty 12" x 4" Planer

A compact, sturdy, thickness planer that offers mill planer precision and ruggedness at a sensationally low price. Write for descriptive catalog sheet.

The PARKS WOODWORKING MACHINE CO., Dept.30-S, 1546 Knowlton St., Cincinnati 23, O.

The Milwaukee Combination Sash Balance and Weatherstrip

Efficient  
Low Cost  
For New Or Old Building

WRITE FOR DETAILS TODAY!

Simple installation slashes labor cost! One man easily installs 25 or more windows in 8 hours. NO high-priced, skilled labor needed. Get more satisfied customers at lower cost . . . higher profit!

Available with or without bronze covers that completely hide springs, as shown above.

MAIL this coupon today!

MILWAUKEE STRIP SERVICE INC.  
4627-23 W. Lisbon Ave.  
Milwaukee 8, Wisconsin

Please rush me folder A.S. and price list of Milwaukee Combination Sash Balance Weatherstrip.

Name
Address
City Zone State

TESTED...APPROVED...ACCEPTED!

CONTRACTORS and BUILDERS

Remember!

every cellar, at one time or another, will spring a leak if it is not properly THOROSEALED on the inside at points which cannot be reached from the outside

WATERPLUG . . . . to stop the leaks  
THOROSEAL . to fill & seal the surface  
QUICKSEAL . . . for a beautiful finish

Will take care of your water problems

Order through your Lumber and Builders' Supply Dealer

WRITE FOR CIRCULAR NO. 144 ON HOW TO KEEP WATER OUT OF YOUR MASONRY WALL

STANDARD DRY WALL PRODUCTS

Box X, New Eagle, Pennsylvania  
Telephone Monongahela 67
Free of die-castings—inside parts of rust-protected steel—trim of solid brass.

DEXTER-TUBULAR

... they’ll bless you for this

WHO GETS THE DICKENS when the door knobs you installed come loose? Sure, we know it’s you. That’s why you’ll like the way Dexter Tubulars have licked this annoyance. That clever little Dexter set screw with the grip-lock coil spring puts the knob in place — and keeps it there!

Be sure to point out that feature when installing Dexter Tubulars. Customers will bless you for it! They like such thoughtfulness. Also, it makes them interested in the other fine features found only in Dexter Tubulars — the Dexter exclusives that add up to a lifetime of satisfaction, with a guarantee that says so in straightforward words.

And while you’re talking about Dexter’s foolproof simplicity, don’t overlook the simplest thing of all — the way a Dexter Tubular can be completely installed in less than six minutes — from scratch! That’s the kind of cost cutting which really rings the bell nowadays.

NATIONAL BRASS COMPANY

Grand Rapids, Michigan

MAKERS OF BUILDERS, CABINET, SCREEN DOOR AND SHELF HARDWARE

In Canada: Dexter Lock Canada Ltd., Guelph, Ontario
CHAMPION quality Har-Vey Hardware has scored a permanent victory over rust, for use of new Oilite bearings has made it completely rustproof. And with this new feature, Har-Vey Hardware rolls even more silently, even more smoothly than ever before!

Rolling doors save space, time and money -- equipped with Har-Vey Hardware, they are simply installed and good for a lifetime of smooth, silent rolling.

Send today for folder showing varied uses & installation details of rolling doors & complete information on Har-Vey Hardware:

Address: Hardware Division H

Metal Products Corporation
807 N. W. 20th St. Miami, Florida

Got an Opening for a Super Salesman?

Maybe you never thought a window could sell a house. But just install Gate City Awning Windows in a sample house and watch curiosity develop into desire for possession through the irresistible selling power of their advantages:

- Distinctive architectural design.
- Feather-light worm-and-gear operation by a small handle.
- Draft-free, safe ventilation in all weather.
- No danger of rain damage.
- Natural air circulation promoted by tilt of sash.
- Easy, safe indoor cleaning.
- Child safety.
- Indoor screens and storm sash — no rainstreaks on exterior walls.

Gate City Awning Windows may be just the "plus" to stamp your homes as the best buy in your locality. Their cost is low enough for your smallest home.

Write for full information, sizes, prices, etc. Gate City Sash & Door Co., Dept. B, Fort Lauderdale, Florida.
What material gives a home the greatest structural strength?

In a recent nationwide survey, you builders said "brick!"

For strength and for the many other qualities that make better, more salable homes you chose brick, time and time again. First for beauty, for permanence, for pride of ownership, for fire safety, for real value—first, among all other materials, 10 times out of 12!... very near first the other two!

For non-residential building, you gave brick a similar endorsement, only you made it even stronger!

So, on your next job, remember that you men who know materials best say—"for all-around desirability in any building, it's BRICK FIRST!"

**GET YOUR COPY OF "BRICK ENGINEERED HOMES"

Shows you plans of six low-cost, easy to build homes. All are beautifully planned in modular coordination. Detail drawings available. Send 25¢ with your name and address to Structural Clay Products Institute, Dept. AB-3, 1756 K Street, N. W., Washington 6, D. C.

**TIPS ON GOOD MASONRY PRACTICE**

Type of exposed mortar joint used in masonry walls is important to both appearance and moisture penetration.

The color, type and texture of mortar joints will affect, to a marked degree, the interest and quality of a finished masonry wall.

Color should be kept uniform despite gradations in brick shading.

Texture may resemble brick, or contrast with it. It is controlled by the use of a steel or wood surface tool and also by the coarseness of sand or gravel in the mortar mix.

The 6 types of exposed joints illustrated are shown in order of their resistance to moisture penetration, greatest resistance first.
Everybody’s Happy with Hidalift

the 100% concealed sash balance

THE ARCHITECT is all smiles because with Hidalift he can design more beautiful windows without unsightly parts of balances showing. THE BUILDER is all for Hidalift because he knows it’s faster and easier to install. THE HOMEOWNERS love Hidalift because of its positive action, ease of operation and lifetime wear. WE (at T & S) like Hidalift because our faith in its superiority has been proven by its amazing sales record. A comparison will prove that Hidalift has all the desirable features a truly modern sash balance should have.

WRITE FOR our illustrated folder which includes all installation details and lists sizes and specifications on Hidalift for all standard sash. Use coupon below or your own letterhead.

HIDALIFT DIVISION—THE TURNER & SEYMOUR MFG. CO., TARRYINGTON, CONN.

Gentlemen:

☐ Send complete literature and prices on Hidalift
☐ Send sample Hidalift
☐ Send name of nearest distributor

NAME
ADDRESS
CITY ZONE STATE

MR. DEALER:

When Selling Steel Kitchen Cabinets

Point to

Approved by

QUALITY TESTED

STEEL KITCHEN CABINET INSTITUTE

For your Protection

When you see this seal on a kitchen cabinet it means that the cabinet has successfully passed 21 different tests. It’s good insurance for the dealer and makes his selling easier to the hard-to-please customers.

STEEL KITCHEN CABINET INSTITUTE

140 PUBLIC SQUARE - CLEVELAND 14, OHIO

HOW TO GET RID OF EXHAUST GAS FUMES IN GARAGE BUILDINGS

INEXPENSIVE SOLUTION TO A SERIOUS GARAGE VENTILATION PROBLEM

For the garage owner planning a new building or extensive remodeling, National has designed and engineered an underfloor System for effective removal of poisonous carbon monoxide gas and smoke. The National Underfloor System is completely fabricated at factory and is shipped complete with motor and blower in a packaged kit—nothing else to buy. A proven, adequate, dependable system—National has many hundreds of installations in garages in every part of the country. Send us your floor plans and specifications. We will gladly supply scaled drawings of our equipment. Literature on request.

Illustration shows standard kit with four extra tube outlets.

$319.50 complete packaged kit, F.O.B. Decatur.

Write for circular

The National System of Garage Ventilation

Dept. 916-U, 330 N. Church Street, Decatur, Ill. World’s largest manufacturer of exclusive garage ventilating equipment.
Thousands of home-seekers are waiting for homes like these. Homes that are designed right... built right... and priced right! PH Homes are designed to sell from $5,000 to $8,000 — with or without basement. They’re the low-cost, high-quality homes America has been waiting for.

**Designed for today’s market!**

Mr. 1949 House-buyer is looking for value. You’ll have it when you sell PH homes. They’re built of the best materials — well-designed, permanent homes — 10 times stronger than ordinary standards of home construction. And they sell at a price the mass market can afford!

PH Homes come from the factory 85% complete — with finished walls, full insulation. Your money will be tied up for a shorter time because you can put up PH Homes quicker. “Turnkey” delivery can be promised within 30 days.... Write us for full information.
RADIANT GLASS HEAT

Here's the answer to the heating demands of Builders, Architects and Homeowners. A system that affords savings from the very start—save as much as 1/3 to 1/2 through the elimination of cellars, utility rooms, furnaces, boilers or chimneys. Thermodynamic "zone-control" insures economy of operation. Housewives enjoy this new freedom from dust, soot, oily films.

Investigate today. Radiant Glass Heat will enable you to provide your clients with cleaner, safer, more satisfactory heat at a substantial saving. Fill in and mail the coupon below!

- Aluminum element fused into tempered glass
- Safe—no danger of fire or explosion
- Clean—no soot, dust, oily film
- Economical—low installation and operating costs
- A.C. or D.C.—110 or 220 volt wiring
- Underwriter approved

CONTINENTAL RADIANT GLASS HEATING CORP.
ONE EAST 35TH STREET, NEW YORK 16, N. Y.

MAIL COUPON TODAY!

For additional information on this new wonder-heat, and without any obligation on your part, fill in and mail this coupon today.

NAME ________________________ (Please Print)
COMPANY (IF ANY) ____________
ADDRESS ______________________
CITY ________________________ ZONE ______ STATE ______
There are 2 types of Strand Doors for 8' x 7' garage opening—Receding (track) and Canopy. The Double-Garage Door (at right)—in receding type only—fits 16' x 7' opening, unobstructed by center post.

Builders like Strand's easy installation—no "factory-trained expert" needed to install. One-piece door leaf eliminates field assembly of single doors; double doors are quickly assembled from two 8' x 7' door leaf units and splice channel. Sturdy, factory-assembled, packaged hardware acts as installation templet.

Both canopy and receding (track-type) doors feature welded construction—no bolts or screws to work loose. Only 2" of headroom required. Heavy rubber weatherstrip across bottom is left full for trimming to fit uneven floors.

Home owners, too, quickly appreciate the outstanding features of Strand Doors. Rugged, all-steel—can't sag, warp, rot or shrink. Uniform steel sheets milled to exact specifications—no variation in quality as with some other materials.

Strand's durability and performance are provided at amazingly low prices—this is America's greatest garage door value! Both single and double doors are available without waiting. Order now—or mail the coupon for more information.
The Trademark with 14 HOMES!

American Builder, March 1949, Glass Shower Doors

The plywood produced by Associated Plywood Mills is available quickly at 14 different locations in the United States. That means you can get what you want when you want it—and in the quantity desired. Quality plus service is our policy—and your assurance of prompt delivery.

2 MILLS
Eugene, Oregon
Willamina, Oregon

5 BRANCH SALES WAREHOUSES
Eugene, Oregon
Willamina, Oregon
925 Toland St., San Francisco, Calif.
4814 Bengal St., Dallas, Texas
4268 Utah St., St. Louis, Mo.

7 SALES WAREHOUSES
Bessonette & Eckstrom
2719 S. Compton, Los Angeles, Calif.
PACIFIC MUTUAL DOOR CO.
626 Tacoma Bldg., (Home Office) Tacoma, Wn.
1407 Fleet St., Baltimore, Md.
2141 Throop St., Chicago, Ill.
516 South Ave., Garwood, N.J.
Adams and Shawnee Sts., Kansas City
2235 Territorial Road, St. Paul, Minn.

ASSOCIATED
Plywood Mills, Inc.
General Office—EUGENE, OREGON

Glass Shower Doors and Medicine Cabinets

Add Extra Beauty and Salability to Your Building Project

- Add Beauty, Utility, and Economy with Glass Shower Doors or Tub Enclosures. Special Builders prices on request.
- Medicine Cabinets...of the highest quality and Beauty. All sizes and styles suitable for every type building from low income housing projects to fine Mansions and Hotels.

Write for Illustrated Brochure today!

SOUTHERN
SHOWER DOOR & CABINET CO.
Dept. ABM - 4511 Kyle St. - Houston 6, Texas

BUILDERS • CONTRACTORS

CUT COSTS
With MULKEY'S
All-Steel
PORTABLE ELEVATOR
It's Balanced

★ For bricks, blocks, mortar in buckets, sand, roofing, lumber, boxes, dirt, sacks, etc.
★ One man can handle and operate...easily trailed up to 35 miles per hour.
★ Clutch and Brake Assembly own design (Extra)

Write for FREE Literature and Prices!

SAM MULKEY COMPANY
1621-KG Locust
Kansas City 8, Mo.
“as I always say:

FAMILIARITY BREEDS CONTENT”

The more you see of Columbia Venetian Blinds—the more you operate them, live with them—the more satisfied you are. It's true of housewives and homeowners. It's true of decorators and commercial and institutional users. Columbia is the name they know and trust.

“CCC”—a quick way to say Columbia-Controlled-Construction—is back of Columbia quality. It means Columbia control of all the elements of your blind. It accounts for the silky-smooth operation of all working parts. It insures long, economical wear.

For any size, any type of installation, any quantity—choose Columbia Venetian Blinds through your nearest Columbia Authorized Dealer. Consult with him today!

Columbia Venetian Blinds and Window Shades are sold only in leading department and furniture stores and shade shops designated as Columbia Authorized Dealers.

QUICK CHECK
ON Columbia QUALITY POINTS

✓ handsome headbox, dust-and-rustproof, completely encloses all satin-smooth working parts.
✓ choice of enameled-coated steel or aluminum slats. Easy to clean.
✓ tape removal clip at top and bottom makes tape changing quick, easy.
✓ automatic safety stop holds blind where you want it—no slipping.
✓ Columbia's special Snap-Stop keeps blind from rattling, banging when window is open.
✓ "famous fourteen" colors fit harmoniously into any color scheme.
Big Combination Offer

ALL FOUR BOOKS, PLUS
MODERN METHODS OF HOME HEATING
A $15.00 Value for ONLY $11.50

Start your reference shelf with these four standard building books and a copy of the new Modern Methods of Home Heating booklet. You can save $3.50 by taking advantage of this special offer of $15.00 worth of books for $11.50, which is being made to American Builder readers. Fill out the order form on the opposite page, attach your remittance and mail it today. The books will be promptly forwarded postpaid on our money back guarantee basis.

Simplified Carpentry Estimating
By J. Douglas Wilson and Clell M. Rogers
A complete and up-to-date explanation of house carpentry estimating by two experienced instructors. Short cut methods, helpful illustrations and tables, and material check list safeguard against errors and oversights. 4th Ed., 288 pages, 123 illus., 60 tables, index, 5 x 7 1/2, solid binding. $3.00

House Construction Details
By Nelson L. Burbank
Builders refer to this book when making alterations in a set of stock plans and when drawing up a complete set of plans. Hundreds of detail drawings and photographs, with just enough text to explain general principles. Includes pre-fab construction. 2nd Ed., 314 pages, 1,500 illus., index, 8 1/2 x 11, cloth. $4.50

Modern Methods of Home Heating
By J. L. Shank
This compilation of American Builder articles on modern heating methods contains a lengthy introduction by S. Konzo, the nationally known authority. How heat losses of from 15 to 40% can be cut and the right kind of heating equipment selected is part of the valuable information presented. 16 pages, 82 illus., 11 charts, 8 1/2 x 11, paper cover. Single Copies $1.00

House Construction Details

Modern Methods of Home Heating

Modern Methods of Home Heating

Modern Methods of Home Heating
Learn more and EARN MORE!

You can provide the better things in life for yourself and your family by increasing your knowledge of the building business. The business of building always has and always will offer unlimited opportunities to the man who has foresight, ambition and knowledge.

The books described and offered to you here are written and edited for one purpose—to aid you in your chosen profession—building.

Start a reference shelf of building books now. A few minutes a day of your spare time spent in reading these books will increase your knowledge of the many complex problems of building you are called on to solve every day.

Every professional man should have a reference library of books pertaining to his business. A combination of some of the best knowledge in the building industry has gone into these books. This is your opportunity to share this knowledge of the experts—the opportunity to learn more and earn more.

Select the books you want to begin with. Mail the coupon today. After five days, if you are not entirely satisfied with your selection, return them to us. Your money will be cheerfully refunded.

Practical Job Pointers

"Tricks of the trade," practical short cuts and modern methods of doing all kinds of carpentry and building repair jobs are described and illustrated with working drawings. More than 750, compiled from American Builder's How-to-Do-It Pointers, are arranged under subjects and cross-indexed for quick reference. 3rd Ed., 211 pages, 750 illus., 8½ x 11¼, cloth.

Blueprint Plans

This unique plan book contains 12 complete blueprints of modern small homes designed by leading architects. Contractors can figure local costs from these 16¼ x 11½-in. blueprints drawn to ½-in. scale. Includes descriptions and floor plans of 9 other houses, 7 garages and sketches of built-ins. Plastic tube binding to open flat.

Reader's Guide Booklets

Four Book Guides for 10c

These Book Guides are very helpful in picking the right books for your reference shelf. They present complete descriptions of from 60 to 150 Estimating, Carpentry and Building, Shopcrafting and Plan Book of all publishers. We supply these books from our stock as a service to American Builder readers.
COMPLETE DOOR UNITS
ARE NOW AVAILABLE IN
4 SIZES
WITH WOOD OR ALUMINUM DOORS

<table>
<thead>
<tr>
<th>WOOD DOORS</th>
<th>ALUMINUM DOORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 10</td>
<td>No. 17</td>
</tr>
<tr>
<td>8' Wide</td>
<td>8' Wide</td>
</tr>
<tr>
<td>7' High</td>
<td>7' High</td>
</tr>
<tr>
<td>No. 7</td>
<td>No. 870</td>
</tr>
<tr>
<td>8' Wide</td>
<td>8' Wide</td>
</tr>
<tr>
<td>6'6&quot; High</td>
<td>7'6&quot; High</td>
</tr>
<tr>
<td>No. 19</td>
<td>No. 880</td>
</tr>
<tr>
<td>9' Wide</td>
<td>8' Wide</td>
</tr>
<tr>
<td>7' High</td>
<td>8' High</td>
</tr>
<tr>
<td>No. 21</td>
<td>No. 890</td>
</tr>
<tr>
<td>16' Wide</td>
<td>6' Wide</td>
</tr>
<tr>
<td>7' High</td>
<td>7' High</td>
</tr>
</tbody>
</table>

Here's the way to give home owners the extra convenience of overhead garage doors at surprisingly low cost. Use "Over-the-Top" Complete Units, with wood or aluminum doors. They'll fit any building budget and specifications; styled for today's architecture. These Frantz Units come complete with hardware and are prefitted... even bolt holes are bored. They require only 2" of headroom; door is carried completely in, out of the weather. Aluminum door units offer light, sturdy construction, plus "Over-the-Top" smooth, trouble-free operation. Write today for full details.

FRANTZ
GUARANTEED BUILDERS HARDWARE
FRANTZ MANUFACTURING CO., STERLING, ILLINOIS

Universals-Rundle merge the functional with the tasteful to make available to the trade a new line in bathroom equipment. Lustrous, long-life wares, with quality all the way through characterize the Universal-Rundle complete line of vitreous china and vitreous enamel on cast iron... a solid family of exquisite charm, with prices tailored to range the market... engineered to serve the trade. Because homemakers fit Universal-Rundle smartness into their dreams, you'll find it profitable to fit Universal-Rundle into your plans.

UNIVERSAL-RUNDLE
Bathroom and Kitchen Equipment
Uniting two great names, Universal Sanitary Mfg. Co., and Rundle Mfg. Co., and two quality lines, a century of experience is combined to provide an even greater service to the trade.

a clique of fine bathroom ware...
Better Masonry Walls with Medusa

**BRIKSET**

the "Job-Fitted" Mortar Cement

This beautiful weathertight masonry wall shows the results of using Medusa Brikset Masonry Cement. A "Job-Fitted" mortar cement, it makes a beautiful light gray mortar. Brikset mortar contains a minimum of alkalis, thereby eliminating efflorescence caused by mortar. You can't top Brikset mortar for bonding power as it completely contacts the masonry units and resists contraction and expansion. Minimum shrinkage during hardening prevents separation cracks between mortar and units. The strength of Brikset mortar surpasses Government specification S.S.-C.-181 b.

Workmen particularly are enthusiastic about Brikset because it's so plastic, spreads easily, strikes off clean, and permits units to be bedded and shoved readily into position. It doesn't weep, eliminating expense in cleaning walls. Medusa Brikset requires no expensive slaking ... just add water and sand, and mix.

Medusa Brikset is not only uniform but it's "Job-Fitted." It has the qualities best suited to make mortar for laying brick, tile, stone, glass brick and other masonry units. Use Medusa Brikset on your next contract and standardize on it for a uniform high quality mortar. Order from your dealer today.

"FIFTY-SEVEN YEARS OF CONCRETE PROGRESS"

MEDUSA
PORTLAND CEMENT COMPANY
1002-2 MIDLAND BUILDING • CLEVELAND 15, OHIO
ZINC SERVES YOU

Galvanizing (Zinc coating) insures long-time, low-cost service. For as long as iron or steel is coated with Zinc, it cannot rust. For satisfaction, use galvanized materials. They're "Sealed-in-Zinc" against rust.

TIME proves galvanized sheets stay stronger longer. Used as roofing and siding, they give buildings the "strength of steel" - the rust protection of Zinc. The "Seal of Quality" (above) is your guide to smart economy in buying galvanized sheets. It means they carry at least 2 oz. of Zinc per sq ft. Galvanizing also lengthens fence life and service.

Producers' Council Asks Aid in Adoption of Modular Coordination

EVERYONE CONCERNED with building is asked by the Producers' Council to aid in speeding up the adoption of modular coordination as a major step in lowering construction costs.

James M. Ashley, president of the Council, stated that "the advantages of designing homes . . . on the modular basis and of using materials with coordinated dimensions have been demonstrated beyond all question, and 1949 should be the year when modular coordination becomes standard accepted practice throughout the building industry.

"With the aid of the Housing and Home Finance Agency, the industry must make certain that the details and advantages of this project are made known to everyone who designs and finances construction as well as those who produce materials and do the actual building," Ashley said.

"This can be done through educational meetings in local communities and through the dissemination of the necessary technical information in printed form."

Explaining how modular coordination will reduce construction costs, Ashley said "definite savings are obtained . . . because designing is speeded up and because both time and materials are saved at the building site.

"Economies at the building site arise from the fact that, when the dimensions of the various materials were coordinated, there is much less of the costly cutting, fitting, and patching which add so greatly to the cost of building," he said.

Free Booklets

Fully illustrated and packed with practical information on galvanized sheets and Metallic Zinc Paint. Send for them today.

American Zine Institute
35 East Wacker Dr., Chicago 1, III. Km. 307
Send me without cost or obligation the illustrated booklets I have checked:
[ ] Repair Manual on Galvanized Roofing and Siding
[ ] Facts about Galvanized Sheets
[ ] Use of Metallic Zinc Paint to Protect Metal Surfaces
Name
Address
Town State

A. F. Baal To Retire From Carr, Adams and Collier

A. F. BAAAL, secretary and wholesale manager of Carr, Adams and Collier Co., Dubuque, Iowa, has announced his plan to retire from active service at the annual meeting of the new board of directors of that company. However, he will continue as a member of the board of directors.

Baal was elected to the board of directors in 1924, and was elected secretary of the company in 1931. He has the unusual record of over half a century of continuous service with the firm, and has played an important part in the growth of that concern.

Fred E. Bissell, Jr., at the same board meeting, was elected secretary to succeed Baal. Bissell will continue as secretary, and will take over the duties of wholesale sales manager.
Charge the suds unit with 1 or 2 tablespoons of Vel, Dreft, Chat, Tide or other well-known household detergents. Fingertip control. Lift the diverter valve for clean spray. Push the button on sprayer handle to add suds as needed.

New MANVILLE DISHMASHER in LIFETIME CHROME

Put this quality "salesman" to work selling homes in your present development. See how the housewife "oohs" and "ahhs" over its work-saving operation which eliminates "dishpan hands".

The handsome chrome faucet unit becomes a dishwasher at will. Suds flow through the nylon brush, giving fast, sanitary scrubbing of dishes. Instant switch to clear rinse water.

Manville DISHMASHER adds the modern touch to any kitchen. It's not a gadget, but a permanent fixture manufactured to highest standards. Fully guaranteed.

Simple faucet type installation. Choice of wall or table types to fit any sink. Available at jobbers and dealers. Retail price is only $39.50
NOW...WATERPROOF IN FREEZING WEATHER!

with CRYSTAL Silicone WATERPROOFING NON-FREEZING! LASTINGLY EFFECTIVE!

When cold weather slows up construction jobs—you can speed up their completion by following through with CRYSTAL exterior waterproofing. CRYSTAL can be applied quickly and easily by brush or spray—at temperatures below FREEZING—an exclusive feature that can save you time and money this winter on concrete block, brick and stucco construction.

All these extra advantages—found only in CRYSTAL—mean faster, more dependable waterproofing jobs for you all year round!

- **ONE-COAT.** Crystal penetrates deeply, waterproofs the entire depth. One gallon covers 100 to 200 square feet of surface.
- **TRANSPARENT.** Crystal is invisible after application. Will not change surface color or texture.
- **STAINPROOFS.** Makes surfaces self-cleansing, prevents efflorescence.
- **SURFACES MUST BE DRY.**

**Send this convenient coupon for PROMPT ACTION**

WURDACK CHEMICAL CO., 4956 Fyler Ave., St. Louis, Mo.

☐ Ship to me, one gallon can of CRYSTAL—for which I will pay $5.35 if I am satisfied...otherwise there will be no charge or obligation on my part.

☐ Send me literature and prices on CRYSTAL.

Name

Firm

Address

City State Zone

My supplier’s name is:

THE KITCHEN-AIRE EXHAUST FAN

**Is Different!**

- **MAXIMUM EFFICIENCY:** exhaust grill may be mounted above cooking range...even on an inside wall.
- **FIRE-PROOF:** grease laden air is NOT drawn over motor.
- **WEATHERPROOF:** ball bearing, damper protects against heat loss; operation unaffected by weather.
- **ECONOMICAL:** low in cost; easy to install. Grease and moisture laden air is not deposited on kitchen walls—saves on cleaning and demolition.
- **WEIDE USEFULNESS:**—electrically operated, may be installed anywhere—new or old houses—keeps kitchen cool and odorless, bathrooms and recreation rooms fresh and basement dry.

Here are features that the conventional exhaust units can’t offer...Kitchen-aire units are actually SUPERIOR, and they’re selling fast!

**NEW! Low Cost**

Light Duty ELECTRIC ELEVATORS

Why handle freight the slow, costly way—by hand? You can now handle light freight electrically in loads of 1,500, 2,000 and 2,500 pounds with the new Otis Self-Supporting Elevator. Designed for a maximum rise of 35-0” it is suitable for any 2 or 3 story commercial or institutional building. It is inexpensive to install because its self-supporting design requires no penthouse, no overhead supports, no building reinforcing.

OTIS ELEVATOR COMPANY, 260 11TH AVE., NEW YORK 1, N.Y.
Use a Sterling Sander to remove pressure marks and scratches caused during assembly and installation of cabinets.

REDUCE SANDING TIME AND FINISHING COSTS

PORTABLE ELECTRIC SANDER
Sterling Sander quickly produces a smooth, uniform surface. Eliminates tedious hand sanding.

EASIER SANDING
Lightweight (only 8 lbs.) vibrationless and well-balanced, the Sterling Sander is easy to operate even in hard-to-reach places, on flat or curved surfaces.

SANDS (Coarse or Fine) ON WOOD, COMPOSITION OR METAL
- For dry wall (plasterboard) construction
- For constructing and finishing built-in cabinets
- For smoothing plaster cracks and patches
- Sands doors, frames, sills, stair treads
- Sands undercoats, fillers, primers and finish coats.

Use a Sterling Sander to smooth rough plaster, excellent for dry wall (plasterboard) construction.

Use a Sterling for sanding unfinished cabinet work—smoothing mitered joints—removing finger marks and other blemishes prior to finishing.

Use a Sterling Sander to finish trim after rough sanding... also for fitting doors and drawers.

WRITE FOR FOLDER

STERLING TOOL PRODUCTS CO., 1334-A MILWAUKEE AVE., Chicago 22, Illinois

STERLING SANDERS
PORTABLE ELECTRIC AND AIR-DRIVEN
Temperature Control
in a Package...

For Automatic Heating Comfort

*NO OUTSIDE CURRENT REQUIRED,

the tiny pilot flame generates the power to automatically operate the control system. The PILOT GENERATOR is a unique thermocouple device originated by GENERAL CONTROLS, which provides the pilot flame ignition and simultaneously utilizes its heat to generate the electrical current. If pilot is extinguished, generation ceases, thus automatically and positively shutting off fuel control system. Everything required in a package for simple, easy installation. For all types of heating appliances using natural, manufactured, mixed or liquefied petroleum gases.

No other control system offers all these outstanding advantages

- Accurate Room Temperature Control
- Automatic Safety Shut-Off
- Silent Operation
- Self-operated, No Outside Current Required
- Simplified Two-Wire Control Circuit
- 10 Years of Field Proven Performance

System consists of the compact, modern snap-action Thermostat, (stainless cover with ivory plastic base, extending only 1" from wall), the silent-operating gas valve and the Pilot Generator. All three units scientifically designed to provide safe, remote control of room temperatures.

If they're Controls they're the BEST

Automatically yours for Better Heating

GENERAL CONTROLS
Request Descriptive Literature
Manufacturers of Automatic Pressure Temperature, Level & Flow Controls

FACTORY BRANCHES: BIRMINGHAM (3) - BOSTON (16) - CHICAGO (5) - CLEVELAND (15) - DALLAS (2) - DENVER (10) - DETROIT (8) - GLENDALE (1) - HOUSTON (6) - KANSAS CITY (2) - NEW YORK (17) - OKLAHOMA CITY (1) - PHILADELPHIA (40) - PITTSBURGH (22) - SEATTLE (1) - SAN FRANCISCO (7) - ST. LOUIS (12) - DISTRIBUTORS IN PRINCIPAL CITIES

Protection and good looks are easily obtained with this amazing new finish. Cut down maintenance costs by eliminating waxing and scrubbing on floors. They shine NATURALLY WITH PLATON!! All decorative wood wall coverings are made beautiful with the wonderful new Platon. Dealers, jobbers and contractors write for full particulars. Many territories still open.
Here's the Low-Cost Flooring to give you a lifetime of wear...

Today, when every dollar counts, you'll find asphalt tile the most economical of all applied types of floor coverings!

**LONGER LASTING**
Over 150 million square feet of MA-TI-CO installations the country over are proving their endurance to wear under the most rugged conditions.

**INSTALLS QUICKLY**
Made to Federal specifications, MA-TI-CO is precision finished to make for a perfect-fitting job. Cuts down on installation time. Can be laid without disruption of normal store or plant operation.

**EASY TO CLEAN**
Daily dusting and an occasional mopping and waxing is all you need to keep your MA-TI-CO floor clean and beautiful. MA-TI-CO is odorless, sanitary, safe... will not wear slippery with use.

**SAVES ON REPLACEMENTS**
Should excessive abuse or accidents necessitate repairs, new MA-TI-CO tile units can easily be inserted. Expansion of a floor, as in remodeling, is just as simple with the addition of matching tiles.

**BEAUTIFUL . . . COLORFUL**
A range of 27 MA-TI-CO colors . . . both plain and marbleized . . . offer limitless design possibilities only possible in tile types of flooring. Thru-and-thru colors can't rub off.

FREE! Full-Color Literature Showing Sample Tile Line and Design Patterns. Write to: Mastic Tile Sales Corp., Dept. E, 153 W. 57th St., New York 19, N.Y.
Cotton insulation is given the finest rating of any available insulation by the American Society of Heating and Ventilating Engineers—recognized authority in this field. This means Insl-Cotton’s “K” value of 0.24 is the lowest of any type of available insulation—therefore its effectiveness is maximum. Coupled with this high efficiency is Insl-Cotton’s extreme light weight and its highly desirable advantages of being easy to handle and install. These important advantages, plus economy, long life and safety are winning public approval and acceptance for Insl-Cotton with striking results. Tie in with this fast selling product and let flame-proof, fire-retarding Insl-Cotton boost your insulation sales and profits.

*Certified*—No other insulation except flame-proof, fire-retarding cotton insulation made under Federal supervision can make this claim. Insl-Cotton contains no second-hand material. Every lot is tested and certified to the U.S. Government. INSL-COTTON EXCEEDS TECHNICAL REQUIREMENTS for approved insulation in FHA, FPHA and HH-I-528 specifications.

DEALERS - DISTRIBUTORS—Some franchises open for competitively-priced Insl-Cotton insulation.
When you offer bigger windows...

INCLUDE COMFORT...

WITH Thermopane

Home buyers today want large windows. They want comfort, too. That’s your cue to put in Thermopane®.

This double-glass insulating windowpane builds in extra benefits that homeowners value the year ’round. Thermopane cuts heat loss, reduces downdrafts, ends worries about condensation...and saves fuel. It stays in all year...does away with annual spring and autumn struggles with storm sash.

L·O·F Glass Distributors can supply Thermopane quickly... in over 70 standard sizes as well as made-to-measure units. Write for our Thermopane book.

Thermopane

MADE ONLY BY LIBBEY·OWENS·FORD GLASS COMPANY
439 Nicholas Building, Toledo 3, Ohio
Mortgage Banker Says Rent Controls Cause Excessive Depreciation of Buildings

THE GOVERNMENT'S policy on rent control is causing many buildings to depreciate at a faster than normal rate, according to George V. Warnecke, president of George V. Warnecke & Co., Inc., New York mortgage investment firm.

Under ordinary circumstances, owners can anticipate a profit, while allowing for 10 per cent to 15 per cent vacancy, Warnecke says. With enforced rent control and rising maintenance costs, however, they are lucky today if they can break even.

Warnecke refutes the claim that owners are better off today than ever because high occupancy, due to the current shortage of space, enables them to absorb higher costs and still make a good profit. He points out that a fully occupied building has to bear the brunt of abnormally heavy traffic. This in turn, runs up the cost of replacements and repairs.

"When you run your plant on a three-shift basis," Warnecke says, "the machinery naturally wears out three times as fast as if you were only running on one shift. The same is true of buildings. When occupancy is high, traffic is increased and wear and tear increase in proportion."

Strongly advocating a free market on rents, Warnecke states that "rent control is causing indefinite postponement of much large-scale construction work."

"It's true," he said, "that no rental ceiling is placed on new construction. However, builders who are forced to ask high rents, because of present construction costs, think twice before going ahead with their projects. They feel that, as soon as the space shortage cases, and vacancies occur, tenants are going to desert their buildings in favor of rent-controlled space elsewhere."

AIA To Hold Annual Convention In Houston

ONE THOUSAND architects will gather in Houston, Tex., this month to attend the 81st annual convention of The American Institute of Architects. Nationally prominent speakers will discuss "American Architecture in the Atomic Age." Seminars to be held will consider social and economic trends in American life, new ideas in design, and recent technical developments of great significance.

Right! Three construction features that mean a permanently beautiful floor . . . a better floor . . . one that is easy to lay . . . safe to specify. These features are yours exclusively with Hasko block flooring. First, the triple locking tongue and groove — a patented Hasko feature. Notice how the lips of the groove are locked in to positively prevent raised or curled edges . . . how the tongue is tapered to give a wedge-tight fit which prevents mastic extrusion. This tight interlocking joint is possible due to advantage number two — cross-laminated construction — which practically eliminates expansion and contraction — buckling and warping. Hasko's third exclusive feature is the smooth, unbroken oak face. Permanently laminated plies cannot separate, and there are no crevices, separations, or cuts to weaken the floor, catch dirt, or admit damaging moisture. 12" x 12" blocks are laid speedily with minimum number of joints. In addition, Hasko blocks save installation time, cost and waste. Factory finished in light or dark oak.

FOR RADIANT HEATING: Authorities working with radiant heating and exhaustive tests pronounce Hasko blocks ideal for radiant heating installation.

HASKELITE MANUFACTURING CORPORATION
Dept. AB Grand Rapids 2, Mich.
New York Chicago Detroit St. Louis Philadelphia Los Angeles

American Builder, March 1949.
More Than
250,000
HOMELITE UNITS
Pumps • Generators • Chain Saws • Blowers • Paving Breakers
Are on the Job
Everywhere

HOMELITE PUMPS
Everywhere...even in the most remote places...wherever water has to be pumped out fast and with the least trouble you'll find Homelite Carryable Gasoline-Engine-Driven Pumps in action.

HOMELITE GENERATORS
For operating electric tools...both high-cycle and standard 110 volt...and for operating floodlights, Homelite Carryable Gasoline-Engine-Driven Generators are the ever-ready, ever-dependable favorites everywhere.

HOMELITE CHAIN SAWS
Lightweight, compact, safe and easy to handle, these one-man, high-cycle electric chain saws have super-fast cutting power and are rugged and dependable for all types of cutting on both tree work and construction jobs.

HOMELITE PAVING BREAKERS
More and more the new 15-foot Homelite Electric Paving Breaker is being enthusiastically received by those who want a fast, efficient breaker that is compact and easy to move.

HOMELITE BLOWERS
Where evacuating smoke or supplying fresh air is a must for safety and efficiency, Homelite Carryable Gasoline-Engine-Driven Blowers are constantly on the job.

Homelite Corporation
503 RIVERDALE AVENUE, PORT CHESTER, NEW YORK
Manufacturers of
Homelite Carryable Pumps • Generators • Blowers • Chain Saws • Paving Breakers

See how Homelite Equipment can save time, trouble and money for you. Send for descriptive bulletins on any or all of the equipment shown above.
IT'S NEW IT'S NEWS the 100,000 BTU

Norman Southerner

HORIZONTALLY DESIGNED FORCED AIR GAS FURNACE

The introduction of this new improved large capacity model meets the demand from builders, contractors and dealers for a complete line of Norman Southerner horizontally designed gas furnaces.

The revolutionary Southerner line now meets the heating requirements of 90% of the entire home market. It can be installed in the attic or closet, under the floor, closet or service porch installation, approved by FHA. Now available in 30,000, 60,000, 80,000 and 100,000 BTU in both furnace and unit heater models. Burns natural, mixed, manufactured or LP gas.

101 applications of this Norman Southerner offer new advantages and savings to you. Send for complete details now. Mail the coupon today.

ATTRACTION DISTRIBUTOR AND DEALER TERRITORIES AVAILABLE

"The Ole Reliable"
MARKWELL
"RB3" SCREEN TACKER
AND RB 5/16" SCREEN STAPLES
Immediate Delivery!

OTHER MARKWELL PRODUCTS NOW AVAILABLE
(CATALOG ON REQUEST)
INSULATION TACKERS - MOULDING TACKERS
SASH BAR TACKERS - BRADMASTER
MARKWELL MFG. CO., INC.
INDUSTRIAL PRODUCTS DIVISION
200 HUDSON ST. • NEW YORK 13, N. Y.
Whether it's adding machines or casement hardware, it's what's inside that matters.

The inside of casement operators is important, too... and the Internal Gear construction—exclusive with Getty—is what really counts. Counts for dollars in the till, assurance for the builder, satisfaction for the owner.

Internal Gearing in the Getty No. 4703-W gives great strength and high mechanical efficiency. Case-hardened steel worm, and teeth of cadmium plated steel mean long life and continued ease of operation. Housing and crank are made of high-strength Zamak alloy or solid cast bronze in a variety of finishes, both plated and lacquered. Here is a fine piece of builders' hardware, no longer high-priced, but now at a moderate cost for every home. For dependable casement control—year after year—Get Getty and Be Sure.

Write for descriptive literature.

 Getty Operators...  
Best in Any Case-ment

H. S. GETTY & CO., INC.  
3348 N. 10th St., PHILADELPHIA 40, PA.

---

Now, once again, you can use Robertson's famous, uniform, 
PURE WHITE TILE

This is the tile which came out of 14 years' laboratory research devoted to developing a product of highest quality. Its pure white color and its unequalled uniformity of shade are essential to successful installation. Its egg-shell finish will not craze or crack. Every tile is perfect in shape and size.

When the war deprived us of the basic materials needed to make this superior tile, we stopped manufacturing it rather than impair its quality. Now, SNOWHITE is in production once again. Its standards of quality remain unchanged. And it is being sold at our current white tile prices.

If you used SNOWHITE before the war, you know exactly what to expect, and can specify it with complete confidence. If you have never seen one of these tiles, we shall be glad to send you a sample. Write today on your business letterhead.

ROBERTSON  
MANUFACTURING COMPANY  
TILE DIVISION  
TRENTON 5, NEW JERSEY
42,000,000 people are waiting to get into this Alumitile bathroom!

A homeowner's dream come true! A shining bathroom finished in a lastingly beautiful aluminum wall covering. Hastings Alumitile is making dreams come true all over the country, because it makes possible the easily cleaned surfaces and the permanent beauty of wall tiling at its best on any building budget. Made in a choice of 14 decorator colors, permanently baked onto aircraft aluminum, it can't rust, peel, or craze.

For complete information see Sweet's catalog or write to Hastings Alumitile, Metal Tile Products, Inc., Hastings, Michigan.

**TAKE THE FIRST STEP TO Scott Lawn BEAUTY**

**CORRECT PLANNING WITH Lawn Care**

With Lawn Care to guide you, it's easy to specify the right procedure to secure beautiful lawns with a minimum of expense. Scott lawns add value and distinction to any home or industrial project. Send today for a FREE volume of Lawn Care and be "all set" for the spring grading and seeding time just ahead. Our soil experts are also at your service, no obligation of course!

**BOOKS ABOUT BUILDING**

Authoritative information about the designing, construction and financing of buildings can be found in up-to-date books. We will be glad to recommend suitable books on any subject you are interested in.

J. D. WALLACE & COMPANY
136 So. California Ave., Chicago 12, Ill.
BILL THE BUILDER SAYS:

"They've got QUALITY where folks can SEE it!"

…and that's why I say they sell houses without saying a word—without me having to say a word most times. I'm talking about ALWINTITE Aluminum Windows. Prospects don't have to hunt for quality—they can SEE it from the outside and from the inside. Believe me, when you've got ALWINTITE, prospects know that you're a quality builder!"

Yes, the quality shows on Alwintite windows—shows in their smart good looks, their easy operation, sturdy construction, and the stainless steel weather stripping that's built-in all around. Every Alwintite window bears a "quality-seal," sign of approval by an independent testing laboratory. They meet all F.H.A. requirements.

Alwintite windows help you build houses, too—faster and at less cost. You get them completely assembled, ready to install in a matter of seconds! No painting, no "extras" to add, no adjustments to make!

You can get Alwintite from your local dealer in 25 stock sizes, 8 styles, with screens and storm sash to fit. Also mullions for multiple window arrangement, picture and basement windows. For complete details write Dept. A3, THE ALUMINUM WINDOW CORPORATION, a subsidiary of General Bronze Corporation, 603 Stewart Avenue, Garden City, New York.
Trinity White is a true portland cement made from selected raw materials. It has all the excellent portland cement qualities of strength, endurance and workability. Use Trinity by itself for whiteness—with pigments for purer, truer color values. Use it in architectural concrete units, terrazzo, stucco. Trinity White Portland Cement—plain or waterproofed. Trinity Division, General Portland Cement Co., 111 W. Monroe St., Chicago; Republic Bank Bldg., Dallas; 816 W. 5th St., Los Angeles.

TRINITY WHITE
PORTLAND CEMENT

---

READYBUILT
(Reg. U.S. Pat. Off.)

FIREPLACES
Lends unsurpassed beauty and charm to homes—old and new. The modern fireplace that fulfills all modern day requirements—used with gas or electricity. Large variety of attractive models in brick, stone, wood, etc. available. Furnished complete—ready to be installed in hour’s time of handy man—shipped anywhere.

DEALERS, BUILDERS and HOMEOWNERS write for catalog and full information.

THE READYBUILT PRODUCTS CO.
1705-23 McHenry St.
Baltimore 23, Md.

All Aluminum
Liteway
SHIPS PARCEL POST IN COMPACT 5 FOOT CARTON

SECTIONAL Camp Post
8 FOOT HOLLOW LAMP POST—EASY TO WIRE AND INSTALL. 2 Sizes for ALL Lanterns

Manufactured by
Swain & Bridge
NEW BRITAIN, CONNECTICUT

Get FREE BOOK About Complete Home Building Course

COMMERCIAL TRADES INSTITUTE
Dept. D96-3, 1400 Greenleaf Ave., Chicago 26, Ill.

KIMBALL ELEVATORS
PASSenger FREIGHT
HYDRAULIC, HAND POWER or ELECTRIC
Write for free circular and estimate

Since 1883
KIMBALL has made good ELEVATORS
KIMBALL BROTHERS COMPANY
Box 301 Council Bluffs, Iowa
PROVIDENCE WAREHOUSE WITH 22,000 SQ. FT. FLOOR AREA USES CHASE COPPER TUBE FOR RADIANT HEATING!


Big jobs... little jobs, Chase Copper Tube has the advantages that mean fast, economical installation... dependability! For instance: you reduce costly, time-consuming connections because Chase Copper Tube is available in coils up to 100 feet long. Its flexibility means quick, easy hand-bending! And no fittings are needed at bends.

In floor installations, as illustrated, there's no need for accurate leveling of Chase Copper Tube. For ceilings, its light weight makes this overhead work easier... and its small diameter does not require extra plaster for coverage. Send for instructive, informative booklet that discusses radiant heating in theory and practice. Write Dept. AB-39.
LAWSON PRESENTS IMPORTANT NEW ADVANTAGES IN MODERN BATHROOM CABINETS

BONDERIZING

NOW! LAWSON BATHROOM CABINETS are Bonderized AFTER FORMING! AND they cost not a penny more!

AFTER FORMING provides 100% Bonderized protection to every point of surface; all edges and drilled holes are positively protected against rust and corrosion. The advantages of Bonderizing AFTER FORMING give Lawson Cabinets important new selling appeals.

ADVANTAGES OF BONDERIZING AFTER FORMING

1. Bonderizing AFTER FORMING protects all surfaces and edges. Resists rust and corrosion.
2. Enamel finish is bonded to metal at all points, for long life.

AND Lawson Cabinets cost no more with Bonderizing AFTER FORMING!

BONDERIZING is a special chemical process sponsored by the Parker Rust Proof Company. It converts the metal surface to a thin layer of tiny phosphate crystals integral with the metal itself, making a perfect gripping surface for the enamel. Bonderizing shields the metal from moisture and its damaging effects.

THE F. H. LAWSON CO.
801 EVANS ST. CINCINNATI 4, O.
Established 1816
THE WORLD'S LARGEST BUILDER OF BATHROOM CABINETS
Some builders tell us that they can install four Sargent IntegraLocks while they are installing one conventional lock. That's pretty good evidence that you, too, can cut down installation time with this modern, precision built lock set. A glance at the facts will show you why this is true.

The mortise is small... the lock case is only 3 1/2" x 2 1/4" x 1 1/2". All functions from one size of lock case... mortises can be pre-cut. Factory sealed lock cases held to accurate limits. Assembly of knobs simple, direct and fast. Only 4 screws needed to hold lock in place.

Ease of installation is only one of many features that are making the Sargent IntegraLock the most popular quality lock set on the market. Ask your Sargent jobber for the complete IntegraLock story or write us for catalog sheets.
ILLINOIS ZINC’s

ERAYDO ALLOY

AVAILABLE NOW...

A PERMANENT ALLOY • Sheet metal you can get NOW. High grade zinc alloyed for greater tensile strength. Lower cost than copper. Weather resistant. Won’t red rust. Used and lasts for years. Good working properties. EASILY SOLDERED AND FORMED. Write for full details.

ERAYDO ALLOY
THE PERMANENT SHEET METAL
Manufactured only by

ILLINOIS ZINC COMPANY

ESTABLISHED 1870
2959 W. 47th Street • Chicago 32, Illinois
LAFayette 1600
630 Fifth Avenue • New York 20, N.Y.
Circle 7-0874

PAINE “Sudden Depth” DRILLS
CUT HOLES FASTER WITH LESS EFFORT

“Sudden Depth” drills, Carboloy tipped, cut through wood, concrete or any non-metallic material faster, easier than ordinary drills. Because they are “diamond-hard,” they last longer and require less sharpening. Priced lower than ever. Use in any slow speed Electric Drill.

“Sudden Depth” drills are available in two styles... Fluted Shank for deep holes, and Round Shank for shallow anchor holes. Extensions can be easily welded to either model for any length drill. Send for descriptive literature.

THE PAINE COMPANY
2959 Carroll Ave.
Chicago 12, Illinois

THIS APART SENSATION!

Paine “Sudden Depth” drills, Carboloy tipped, cut through wood, concrete or any non-metallic material faster, easier than ordinary drills. Because they are “diamond-hard,” they last longer and require less sharpening. Priced lower than ever. Use in any slow speed Electric Drill.

“Sudden Depth” drills are available in two styles... Fluted Shank for deep holes, and Round Shank for shallow anchor holes. Extensions can be easily welded to either model for any length drill. Send for descriptive literature.

THE PAINE COMPANY
2959 Carroll Ave.
Chicago 12, Illinois

WHAT WILL CALCIUM CHLORIDE DO FOR GOOD CONCRETE?

Here are the Facts

1. What will Calcium Chloride do for cool and cold weather concrete?
2. How much Calcium Chloride will reduce the setting period?
3. What is the effect of Calcium Chloride on slump?
4. How much Calcium Chloride will reduce the curing period?
5. The effect on workability... dryness?
6. The effect on setting time... early strength?
7. Ultimate strength?
8. The effect of Calcium Chloride on Portland Cement?
9. The effect of Calcium Chloride on Portland Cement?
10. Write for your copy today—no obligation.

Solvay Sales Division, Allied Chemical & Dye Corporation, Dept. AB-3, 40 Rector St., New York 6
Unit Locks & Latches Are Available

This series is recommended for all doors in residences, small apartments and other light load buildings. It offers security, simplicity and charm wherever installed.

A smaller version of CORBIN’S famous UNIT LOCKS used on larger commercial establishments since 1899 the new “900” Series features ONE-PIECE FACTORY ASSEMBLY in cast brass or bronze. Installation is amazingly easy — a simple cut-out in the edge of the door — two small drill holes for the securing bolts and the “UNIT” slips into place.

CYLINDER LOCK Unit locks for outside doors operate by key from outside or knob from either side. Pin tumbler security. Outside knob can be locked by thumb turn on inside knob. Master keying if desired.

INTERIOR LATCH Operation by knob only from either side at all times. Screwless knob spindles. Reversible for right or left hand doors.

INTERIOR LOCK Operated by knob from either side. Center button on inside knob locks against outside operation insuring privacy. Emergency unlocking feature is provided in the outside knob.

Western Pines* have a knowing way of doing their job, whether it be to create a gay rumpus room in the basement, or to lend their distinguished charm to the finishing of a stately drawing room.

Likewise these fine-grained versatile woods will faithfully carry out the most exacting design for the exterior such as doorways, cornices, and columns, because of their lasting beauty, unusual receptivity to all kinds of finishes, and economy, architects readily recommend Western Pines and builders gladly use them. Western Pine Association, Yeon Building, Portland 4, Oregon.

*These are the Western Pines Idaho White Pine *Ponderosa Pine *Sugar Pine

These are Associated Woods Larch *Douglas Fir *White Fir Spruce *Cedar *Lodgepole Pine

Well manufactured—thoroughly seasoned—carefully graded — by all Association member mills
ALPHABETICAL INDEX TO ADVERTISERS, MARCH, 1949

A
Allianware, Inc. 167
Allied Chemical & Dye Corporation 171-242
American Builder 220-221-236
American Enameled Tile Co. 71
American Door Manufacturing Co., The 175-176
American Window Corporation 237
American Builder 220-221-236
American Radiator & Standard Sanitary Corporation 30-31
American Roof Truss Co. 156
American Stained Shingle Co. 58
American Structural Products Company 135
American Telephone & Telegraph Co. 23
American Wire Fabrics Corporation 36
American Zinc Institute 34
Andrews Corporation 147
Antibrat Institute 246
Architectural Tiling Company 71
Armstrong Cork Company 163
Austrian Roofing Industry Bureau 44
Associated Plywood Mills, Inc. 218
Atlantic Tile Manufacturing Co., The 21

B
B. Mullin Hood Co. 71
Becker-Compano 156
Bell Aircraft Corporation 131
Benetit-Ireland Inc. 151
Better Homes & Gardens 139-141
Bird & Son, Inc. 190
Black & Decker Mfg Co., The 131
Brannard Steel Company 33
Briggs Manufacturing Company 22
Brown Company 56
Brown & Co., Geo. C. 209
Bruce Co., E. L. 16-19

C
Cabet, Inc., Samuel 170
Cambridge Tile Manufacturing Co. 71
Carbide and Carbon Chemicals Corp. 204
Carey Mfg Co., The 171
Carlyle Tile Co. 71
Carter, Re. R. 164
CEO Steel Products Corporation 16-11
Cellophane Corporation, The 2-208-309
Chattanooga Implement & Mfg Co. 208
Chess & Brass Co. 239
Chesapeake & Ohio Co., The 180
Chemical & Dyce Corporation 242
Chevron Corporation 207
Clarke Sanding Machine Co. 129
Closter Manufacturing Co. 196
Colman Co., Inc., The R. G. 159
Colorado Fuel and Iron Corporation 36
Columbia Mills, Inc., The 219
Commercial Traded Institute 238
Conner Lumber and Lumber Company 148
Consolidated Machinery & Supply Co., Ltd. 169
Construction Machinery Co. 184
Continental Radiant Glass Heating Corp. 211
Conveyors, P. & F. 243
Couroir Heater Corporation, The 149
Cresco Machine Co. 134
Crest Steel Products, Inc. 168
Curvis Companies Service Bureau 195

D
Detroit Steel Products Company 3-17
DeWalt, Inc. 27
Dodge Corporation, F. W. 174
Dodge Division, Chrysler Corporation 207
Dorgis Fire Protection Association 20

E
Elastic Strip Not Corporation of America 46-47
Elkins Tool Company 208
Elcoer Co. 59-60-61-62
Essen Wire Corporation 192

F
Faster Corporation 192
Fer Door Institute 171
Firestone, The 26
Flintkote Company, The 131
Fluorine Lighting Co., The 268
Foggy Mfg Co. 247
Ford Motor Co. 157
Frantz Manufacturing Co. 222

G
Gate City Sash & Door Co. 212
General Bronze Corporation 237
General Controls 258
General Electric Company 197
General Portland Cement Company 237
General Tile Company 74

H
Gerity-Michigan Corporation 225
Getty & Co., Inc., H. S. 235
Gladding, McBean & Co. 71
Grand Rapids Hardware, The 168-243
Great Lakes Steel Corporation 214

Hassen Mfg Co., A. L. 194
Harmsworth Corporation 214
Haskelite Manufacturing Corp. 232
Heil Co. 206
Homelite Corporation 236
Hotpoint, Inc. 16

I
Illinois Zinc Company 242
Ind-Cotton Company 230
Insul-Clone Division Minnesota & Otario Paper Company 185
International Oil Burner Co. 193
Irvinton Furnace & Tank Corp. 234

J
Jackson & Church Co. 28
Jaeger Machine Company, The 198
Johnto Sandeauer Company 190
Johns-Manville 205
Jones & Brown, Inc. 45

K
Keadby & Matthison Company 26
Keltner Division 72
Keystone Wire Cloth Co. 180
Kimball Brothers Company 131
Kimberly-Clark Corporation 142
Kohler Co. 143
Kresky Mfg Co., Inc. 160

L
LaBelle Industries, Inc. 194
LaSalle Lighting Products, Inc. 230
Lan Blower Company, The 202
Lawson Co., The F. H. 240
Libby-Owens-Ford Glass Company 231
Libby-Ry-Corning 21
Little Burner Co., Inc., H. C. 142

M
Mackinaw-Dunco Company 17
Mail Tool Company 202
Maple Flooring Mfrs. Assn. 160
Market Electric Company 200
Markell Mfg Co. 244
Martin Fireproofing Corporation 172
Mastor Mfg Co., Inc. 184
Mascit Tile Corporation of America 229
McGraw-Hill Book Co., Inc. 203
Medina Rambolid Concrete Co. 203
Mekel Brothers 191
Metal Products Corporation 212
Metal Tile Products, Inc. 236
Miami Cabinet Division 173
Milwaukee Strip Service, The 246
Minnesota-Honeywell 181
Minnesota Plumbing Corporation 241
Minero-Glo Cabinet Co., The 362
Moline Manufacturing Company 135
Moline Tile Co. 208
Mulkey Corporation, The 218
Mumford Manufacturing Corporation 28
Murray Tile Company, The 71

N
Nash-Kelvinator Corporation 72
National Adequate Wiring Bureau 158
National Association of Home Builders 146
National Brass Company 231
National Electric Products Corporation 39
National Electrical Manufacturers Association 54-55
National Gypsum Company 179
National Lock Company 228
National Manufacturing Company, 4th Cover 161
National Steel Corporation 161
National System of Garage Ventilation 154
National Tile & Manufacturing Company 271
Nelson Corporation, The, H. C. 166
Nichols Wire & Aluminum Co. 189
Nordahl 157
Norman Products Company 214

O
Olen Tile Co. 208
Oris Elevator Company 176
Overhead Door Corporation, 3rd Cover 176
Owens-Illinois Glass Company 135

P
Pacific Clay Products 23
Pacific Tile and Porcelain Co. 71
Penn Company, The 26
Pine Wire & Cable Division 17
Pittsburgh Hardware Corporation 21
Pittsburgh Plate Glass Company 21
Pittsburgh Steel Products Company 6
Pittsburgh Steel Products Company 17
Pomona Tile Manufacturing Co. 22
Portland Calk Manufacturers, The 26
Praat & Lambert, Inc. 26
Price Fireplace Heater & Tank Corporation 17
Protection Products, Inc. 21
Pyne & Co., Inc. 14
Pyrofax Gas Division 23

R
Readymix Products Co., The 21
Red Devil Tools 21
Republic Steel Corporation 41
Revere Copper and Brass Incorporated 21
Reynolds Metals Company 21
Richmond Radiator Company 6
Robertson Manufacturing Co. 222
Reddin Plywood Corporation 4
Rem-Dev 24
Revere Manufacturing Company 24
Royal Heaters, Inc. 14
Rossell & Irvin Division 16
Ryerson & Son, Inc., Joseph T. 16

S
Sanson Cordage Works 182
Sargent & Company 241
Scholey Lock Company 206
Scott & Sons Co., O. M. 26
Senea Wire & Mfg Co. 16
Service, Inc. 46
Skalsic, Inc. 46
Shane-Lambson Company 15
Skwarek & Company, The 161
Solenoid Sales Division 245
Southern Paper Association 154
Southern Stove & Cabinet Co. 25
Sparta Ceramic Co. 71
State Electrical Lake Association 1
Stamping Products & Mfgs, Inc. 166
Standard Dry Wall Products 218
Stanley Works, The 98
Steel Door Co. 18
Steel Kitchen Cabinet Institute 214
Steel Scaffolding Company, Inc., The 162
Stockcraft Manufacturing Corp. 177
Sterling Tool Products Co. 237
Stewart Manufacturing Company 225
Stream-Steel Division 21
Strand Guard Door Division 195
Structural Clay Products Institute 21
Summitville Face Brick Co. 71
Superior Wall Products 16
Surface Combination Corporation 22
Swain & Bridge 23

T
Tamblyn System, The 141
Taylor Metal Co., The 21
Tile Council of America, The 71
Timken-Detroit Axle Company, The 16
Tite-Drainage 24
Tri-States Building Materials Co. 17
Trudeau Steel, The 49
Turner & Seymour Mfg Co., The 21
Tyler and Bailey, Incorporated 19

U
Unique Balance Company, Inc. 18
United States Architectural Division 17
United States Brick Corporation 17
United States Steel Corporation Subsidy 12
Universal Ashlar Cement Company 17
Universal-Rondall Corporation 24
Upson Company 21
Utah Rock Asphalt Co. 162

W
Wallace & Co., J. D. 236
Ward Manufacturing Company 216
Western Pine Association 14
Westinghouse Electric Corporation 141-201
Wheaton Company, The 171
Wickwire Brothers, Inc. 186
Wickwire Spencer Steel Division 31
Wool Conversion Company 21
Worthington Pump and Machinery Corporation 53
Worshall Chemical Co. 222

Y
Young Radiator Co. 91
Millions of users enjoy the convenience of The "OVERHEAD DOOR" with the Miracle Wedge in residential, commercial, and industrial structures. Superior construction throughout, including hardware adequate for the most rugged service, insures dependable, instant operation. This quality door, which may be manually or electrically operated, also contributes to the distinctive appearance of buildings in any style of architecture. For years of lasting beauty and perfect performance, specify The "OVERHEAD DOOR."

TRACKS AND HARDWARE OF SALT SPRAY STEEL

THE "OVERHEAD DOOR"

TRADE MARK

WITH THE

MIRACLE WEDGE

OVERHEAD DOOR CORPORATION • Hartford City, Indiana, U.S.A.
Your National Dealer will assist you to make other selections from the National line. Ask to see the National Wall Chart.

NATIONAL MANUFACTURING CO.
STERLING, ILLINOIS