PLANS
MATERIALS
EQUIPMENT
TOOLS AND
KNOW-HOW
To Meet This Year's Builder's Market
HERE'S THE ABC TO INCREASED PROFITS WITH CELO-SIDING GARAGES

ATTRACT the attention of garage hunters by arranging with a nearby lumber yard to lend you space to build a sample Celo-Siding garage.

BUILD your model garage—put a price sign on it—let garage hunters see for themselves the low-cost...and the protective advantages of Celo-Siding. Not only will you meet a shortage and make a profit...but you'll help your community solve a serious problem.

CUSTOMER satisfaction is certain with the quickly constructed, labor-saving Celo-Siding garage. This well-known Celotex insulating material provides weather-tight garage walls with an exterior mineral-granule surface in pleasing colors. No painting required. A practical, attractive garage that will give many years service.

SEND FOR YOUR FREE ONE- AND TWO-CAR GARAGE PLANS NOW!

THE CELOTEX CORPORATION
CHICAGO 3, ILLINOIS
How to keep window costs down...

There are ways to save on windows without sacrificing quality or window benefits. It’s a matter of choosing the best window at the best price.

Type 2414N, for typical window openings, is an excellent example. Its 50% opening offers controlled ventilation—more than you get with ordinary windows. It provides 16½% more daylight. It’s well made, sturdy, good looking, easy opening.

Yet it is definitely a “price” window... and we’re eager to have you compare it with any window of equal size you can buy.

Type 2414N is standard. That means lower first cost and greater availability. It is sized for use in the popular 2’10” x 4’6” opening—presents no installation difficulties.

Fenestra offers Residence Steel Casements to fit every need. All made to quality standards, they add salability to houses. For full information and prices in your locality, see your Fenestra dealer—or write to Detroit Steel Products Company, Dept. AB-3, 2260 East Grand Blvd., Detroit 11, Michigan.
Two of Every Three Homes are good Prospects!

Good News! Upson Kuver-Krak Panels are moving to lumber dealers in larger quantities!

Now, you too can join the thousands of carpenters who are starting again to make good money installing Upson Ceilings every month of the year. Simple carpentry is all it takes. And it is your market.

(1) Plan your paneling for good balance, breaking up the area into three or more parts. (2) Apply furring strips right over unsightly ceilings on 16" centers. Provide backing for all four edges of each panel. (3) Nail Upson Floating Fasteners to furring strips 8" apart. (4) Apply the panels to Fasteners. (5) Apply cornice around outer edges of ceiling. Then apply Upson Duplex moulding strips over joints.

Get started now! Ask your lumber dealer for easy-to-follow Direction Sheets, or write us for them.

Easily Identified By the Famous BLUE Center

THE UPSON COMPANY, Lockport, New York
Pacemaker in Crackproof Panels for 35 years. 6 Ply Strong Bilt—for new construction • Kuver-Krak—for re-covering cracked plaster • 5 ply Dubl-Thik Fibre Tile—for baths and kitchens • 4 ply Upson Panels—for general use • 3 ply Easy Curve Board—for displays and industrial
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Volume 70  MARCH, 1948  Number 3
The high quality of American-Standard Heating Equipment and Plumbing Fixtures is a well-proved fact. Your clients see it in the smart styling...you recognize it in the sturdy construction and advanced engineering of these famous products...home owners enjoy it through the years in fine performance.

Yes, American-Standard products are first in quality! They always have been. That's why more American homes have heating and plumbing by American-Standard than by any other single company. For details of the complete line, contact your Heating and Plumbing Contractor.

American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pa.

The EMPIRE Gas Boiler with its colorful Canyon Two-Tone Red Jacket adds to the appearance of this modern basement utility room. Offering all the sound construction features essential to carefree, automatic performance, it is as efficient as it is attractive. The gleaming white BUDGET Gas Fired Automatic Storage Water Heater provides an abundance of instant hot water for the laundry and other household needs.

This novel bath-dressing room arrangement owes much of its functional value to the installation of an additional lavatory—the MARLEDGE—with built-in dressing table and storage space. In the bathroom area, separated by a door, are the popular recess model MASTER PEMBROKE Bath, shelf-back COMRADE Lavatory, and quiet COMPACT Water Closet. Fixtures are available in white and a wide variety of lustrous colors.

LOOK FOR THIS MARK OF MERIT—It identifies the world's largest line of Heating and Plumbing Products for every use...including Boilers, Warm Air Furnaces, Winter Air Conditioners, for all fuels—Water Heaters—Radiators, Convectors, Enclosures—Gas and Oil Burners—Heating Accessories—Bathtubs, Water Closets, Lavatories, Kitchen Sinks, Laundry Trays, Brass Trim—and specialized products for Hospitals, Hotels, Schools, Ships and Railroads.
American Aid to Foreign Socialism

It is a function of a business paper to discuss everything that affects, or may affect, business. This plainly includes the Marshall plan, which proposes that the people of this country shall be taxed to provide perhaps $20 billion for relief and recovery in other countries and thereby help arrest the advance of communism.

The burden of proving by a preponderance of evidence and arguments that the plan, if adopted, will accomplish its purposes, obviously rests on its advocates. That it will not work, unless the governments and peoples of the nations aided do their utmost to help themselves, is not questioned by anybody. There is one strong reason for believing they will not do their utmost to help themselves. This is, that most of these nations are more or less rapidly adopting socialism, because most of their people favor it.

A vast majority of the American people believe that socialism, by reducing the incentives of all classes to use their brains and hands to produce, would be ruinous to the United States. This belief is supported by reason and the entire experience of mankind. Why should we believe that socialism will promote recovery and prosperity in other countries when we believe it would cause ruin here?

We are told we must not try to dictate the political and economic policies of the nations it is proposed that we aid. Agreed. But certainly we have a right and duty, before giving the aid, to consider what use will be made of it; for the use made of it will determine its value to the nations aided and to ourselves.

Whatever goods and capital we donate will reduce by that much the amount of goods and capital we will have for our own use. We are still confronted with shortages of many kinds. These shortages can be remedied only by investing huge amounts of capital in housing and in expanding the productive and carrying capacity of our factories and means of transportation. If we retained in this country the capital that it is proposed we shall donate to other countries, would we turn most of it over to the bureaucrats of our local, state and federal governments to invest? On the contrary, we would leave it in the possession of its private owners to be invested in private enterprise, knowing that if government bureaucrats “invested” it, it would be largely wasted.

Whether other nations waste their own substance by going socialist is their own affair. Whether we shall let them waste our substance by continuing to go socialist, is very decidedly our affair.

Finally, would the Marshall plan help “contain communism”? Communism is simply socialism established and maintained by force. The economic policies and results of communism and of what is called “democratic socialism” are the same. The American people have a right to be told much more definitely than they have been why and how they and the world will benefit if they are taxed billions of dollars to finance socialism, however established and maintained.

Samm O. Dunn,
HERE'S THE TICKET FOR CABINET LATCHES ON LIPPED DOORS!

I INSTALL THEM IN 4 MINUTES WITH THE STANLEY "SPOTTER"!

HERE'S HOW EASY IT WORKS

1. Place "Spotter" against door as illustrated and shut door.

2. With door closed, slide "Spotter" firmly against jamb at desired height.

3. Spot two top holes by pressing guide points against door with thumb.

The Stanley "Spotter" template locates screw holes for Stanley Latches on lipped doors quickly and accurately. There's no fuss or guesswork in the application of Stanley Cabinet Hardware.

Stanley "Spotter" templates—supplied free—enable you to instantly locate the two top holes for the application of Stanley cabinet latches the correct distance from the jamb. A simple press of the thumb does it!

After installing the latch the adjustable strike can be quickly applied. The whole assembly is simple and time-saving. Your dealer stocks the Stanley Blue Ribbon line. The Stanley Works, New Britain, Conn.
Rust-proof, stain-proof, lightweight, needs no painting! In round or Colonial box design

Aluminum is a "natural" for rain-carrying equipment ... the only comparable rust-proof material used in the past is hard to get at nearly twice the price! And Reynolds, biggest name in aluminum building products, now brings you a choice of design ... round or Colonial box type.

Both styles are 5" across top, come in 10' lengths, with slip-joint "S" connectors—no soldering. Weight, less than 3½ lbs. per length. Conductor pipes are available in 3" plain round, 3" corrugated round and 2" x 3" square corrugated. Fittings include inside and outside mitres, trough section with drop, end caps, hangers, elbows.

It's what your customers will want. See your supplier now. Write for literature.

Reynolds Metals Company, Building Products Division, Louisville 1, Kentucky.

NEW... for longer roof life, lighter roof, Toad, cooler buildings in summer

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.004" embossed aluminum that rolls in as easy as felt, bonds firmly, seals in the life of asphalt by sealing out air, light, moisture. Saves 400 to 500 pounds per square compared with slag or gravel dressed roofs. Reflects sun heat—to keep interiors up to 15° cooler. Rolls 36" wide, contain 10 squares, weigh about 60 pounds. Ideal for re-caps, a world of new business! Write for specifications on 2- and 3-ply new roofs and re-caps.

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like a carpenter selects his saw
— TO FIT THE JOB

The carpenter saves time and trouble
and gets best results by using the saw
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Any workman knows that tools and materials must
be fitted to the job and that certainly applies to
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special cements for special work. For example, sup-
pose you have plans calling for the use of stucco.
If you want a finer stucco construction, you won't use just
any cements, you will select two Medusa Special Cements,
Medusa Waterproofed Gray Portland Cement* and Medusa
Waterproofed White Portland Cement for the finish coat.

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staining the surface—instead, the dirt is washed off. That's
why Medusa stucco made with these two special cements
stays beautiful. If you want lasting beauty for your stucco
homes, choose wisely—use the cements made especially for
finer stucco. Send a coupon for the booklet, "A Guide to
Finer Stucco".

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"FIFTY-SIX YEARS OF CONCRETE PROGRESS"

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BUILT STRONGER TO LAST LONGER!

Bonus* Built — THE AMAZING RESULT OF AN ENGINEERING PRINCIPLE THAT ASSURES WIDER USE, LONGER LIFE . . . and ONLY Ford Trucks have it!

Every one of the new Ford Trucks for '48 is Bonus Built . . . built with extra strength in every vital part. This extra strength provides WORK RESERVES that pay off for you in two important ways:

- FIRST, these WORK RESERVES give Ford Trucks a greater range of use by permitting them to handle loads beyond the normal call of duty. Ford Trucks are not limited to doing one single, specific job!
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Yes, Ford Trucks are Bonus Built . . . built stronger to last longer! That's why they give their owners wider use and longer life! That's why there are more Ford Trucks in use today than any other make!

"BONUS: "Something given in addition to what is usual or strictly due."
—Webster's Dictionary

NEW FORD BIG JOBS!
F-7 BIG JOB 19,000 LBS. G.V.W.
F-8 BIG JOB 21,500 LBS. G.V.W.

* NEW Rouge 337 Truck V-8 engine! 145 horsepower. Hydraulic valve lifters. Cobalt-chrome faced exhaust valves. 4-ring pistons with top ring porous-chrome plated.

* NEW Million Dollar cab gives you living room comfort. 3-way air control. Level Action cab suspension.

* NEW 5-speed transmission; overdrive-type available in F-8, standard in F-7.

* NEW heavy duty Quadrax rear axles, Hypoid-type in F-7, two-speed-type in F-8.

* NEW Feather-Foot vacuum-actuated truck brakes. 16-in. by 5-in. double cylinder rear brakes in F-8, 16¾-in. by 3½-in. double action rear brakes in F-7.

* NEW roller action steering! 3-tooth roller supported by two rows of needle bearings. Free-moving steering worm rides on two sets of roller bearings.

You'll find these and scores of other outstanding features in the brand new Ford BIG JOBS for '48! They're Bonus Built for wider use, longer life!

Listen to the Ford Theater over NBC stations Sunday afternoons 5:00 to 6:00 p. m., Eastern Standard Time.

Their's here . . . they're revolutionary! The finest line of trucks in Ford history!

More than 139 chassis-body combinations!
Three new engines! New Million Dollar Cab!
New frames, axles, brakes, steering!

See the new Ford Bonus Built Trucks now. You'll find the right truck for your needs in the new Ford line.
This ad appears in American Home for April

how is your stock?

Now—while millions of people have screening on their minds and this Velon ad before their eyes—now is the time to be sure you stock plenty of this amazingly durable screening. Make this ad work for you, and pull in thousands of dollars worth of sales in your area. Now—ask your jobber or write Firestone, Akron, for full information and free merchandising aids: information folders, window streamers, counter cards, newspaper mats and Velon screening samples.
Take this low-cost Portable Saw-Shop to your job!

This ever-popular, 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!

To build more and better houses faster—builders use this portable, low-cost DeWalt. Because most of its working parts are now of light-weight, heat-treated aluminum, operators find it easier to handle—safer than ever before—and it does the fast, accurate work they want. It's a machine you can get quickly. Write for catalog, DeWalt, Inc., 13 Fountain Avenue, Lancaster, Penna.

DeWALT
HE SAW THAT'S FIRST WITH BUILDERS
For Your Building Products

If you want volume selling for any building product, put your show window on Main Street. That’s where the crowds are—that’s where the buyers are.

American Builder is the “Main Street” of the nation for the sale of building products. Its readers are the men who select and install these products in the largest segment of the building field—homes and other light load bearing structures.

The advertising pages of American Builder are the show windows for your products. All of the shoppers are the men who buy for this second largest national industry.

Ask any American Builder representative to call and go over our ABC audited statement on circulation—see who and where our more than 80,000 readers are.

We know you will reach the conclusion that “They are the Builders who Buy.”

Never leave your show window vacant. Help keep your sales volume up by using adequate sales display space. Start your advertising campaign in the April 1948 issue and use every issue throughout the year.

American Builder
A Simmons-Boardman Publication
105 West Adams St.
CHICAGO 3, ILL.
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NEW YORK 7, N.Y.
Floors are placed faster with Pittsburgh Steeltex Floor Lath. Additional reinforcement is not required because Steeltex Floor Lath is a combination of form and reinforcement for both concrete and gypsum floors and roofs.

With Steeltex you get high-tensile reinforcement, uniformly spaced and laced to a waterproof cord reinforced backing. It definitely aids curing of concrete because the water cannot run through and must evaporate slowly. This provides maximum strength and reduces cracking in the slab. Also Steeltex minimizes drip and prevents waste of cement and aggregate and the resultant clean-up expense on joists and floors below. Note that the lacing wires in Steeltex are crimped and permit separation of the backing from the reinforcing fabric which gives you automatic imbedment from the weight of the mix.

You'll like the way your jobs move along—swiftly, smoothly and at a big saving in time and material. You'll like the end result: better finished floors and roofs with Pittsburgh Steeltex Floor Lath. Specify Steeltex on your next job. For your copy of our catalog D. S. 133 write today to Pittsburgh Steel Products Co., 3235 Grant Bldg., Pittsburgh 30, Pennsylvania.

The background photo shows Steeltex— one-third actual size.

Pittsburgh Steel Products Company
Subsidiary of Pittsburgh Steel Company
STOP VAPOR and MOISTURE with revolutionary KAPCO BOARD!

There's absolutely nothing like Kapco Board—resists water, vapor, alkali, acid, brine and alcohol. It's odorless, rigid, vermin-proof and termite-proof. Fire retarding. New superior strength. Stands up where other boards can't—will not rust, rot, mildew, mold, oxidize or delaminate.

Bureau of Standards report reveals moisture penetration of Kapco Board is practically nil—only 1/25 gram (0.04) per sq. meter per day with quarter-inch board. This is 69 1/2 times better protection than any other board on the market gives. Nothing finer for plaster base or dry wall construction. OK'd by F. H. A.

NOW AVAILABLE—THREE TYPES FOR A THOUSAND USES!

PLASTER BASE—Monolath. Prevents vapor and moisture condensation inside of outer walls. 99.97 perfect vapor barrier. No more soggy, packed-down insulation—no more ice formations inside the walls. No chance of walls sweating—the cause of most plaster failures. Gives rigid support. Strong-armed workmen won't push through Kapco Board. Plaster clings better, is stronger—dries slower—from one side only. Comes in standard sizes. Cuts easily, or just score and break off. Priced competitively with ordinary sheet plaster base.

DRY WALL CONSTRUCTION—May be sealed and painted any color, or papered. Filler or tape conceal joints perfectly. Use also as backerboard, as flooring base, as sheathing board, as flooring and linoleum underlayment, as a general utility construction board. Wonderful for basementless houses and concrete slab construction. Waterproof. Use on the farm for lining poultry houses, barns, silos, sheds. Stands all weathering. Easy to cut. Sizes to 4 x 8 ft. Costs less than ordinary building boards.

DECORATIVE WALL BOARD—Kapco Board in knotty pine and light walnut wood-grain finishes on one side now available. Nothing finer for finishing basements, attics, porches. Other decorative finishes available soon.

KAPCO BOARD

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A Division of American-Marietta Co.

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Precision

FOLDING STAIRWAY

Accepted by FHA everywhere
Patent applied for

NO SPRINGS!
No adjustments necessary!
RUGGED AND STRONG
SIMPLE AND EASY TO OPERATE

Made of highest quality materials
Shipped in one package
Requires very little installation expense

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GRADUATIONS ON RUNNERS FACILITATE CUTTING OFF FOR DIFFERENT CEILING HEIGHTS

TWO STANDARD SIZES
6' 9" and 9' 9"
FLOOR TO CEILING
Light Spring acts upon the latch bolt.
Heavy Spring acts upon the knobs.

Only DEXTER TUBULARS have all these 9 features of superiority

TAKE a peek inside — you will see what makes a Dexter Latch stand up — extra large size springs give an abundance of spring power.

A large, easy action spring in front for the latch bolt. A heavy spring in back for quick, positive knob action.

This is only one of the nine features which assures you of the very best when you use Dexter Tubulars.

1. Stay-tite Set Screw
2. Two Big Coil Springs
3. All Steel Interior
4. Solid Brass Trim
5. Uniform Boring for Locks and Latches
6. Self-Adjusting Alignment
7. 25 Years Specialized Experience
8. Shallow Face Plate Mortise
9. Lifetime Guarantee

NATIONAL BRASS COMPANY
Grand Rapids, Michigan

MAKERS OF BUILDERS, CABINET, SCREEN DOOR AND SHELF HARDWARE
Floor layer's favorite for over 30 years

Bruce Flooring is first choice of men who specialize in beautiful hardwood floors

- A floor layer knows his hardwood floors. Through years of experience he can judge the quality of the flooring as soon as he breaks open a bundle and lays a few strips. He knows whether it is made from good lumber, whether it is properly kiln dried, whether it is accurately machined, and whether it is graded right.

It has always meant a lot to us at Bruce that so many floor layers have expressed their preference for Bruce Hardwood Flooring. They've been using it and boosting it for the past 20, 25, and even 30 years!

And here's added proof that floor layers know their hardwood floors: Survey after survey has shown that architects, dealers, contractors and home owners also prefer Bruce Flooring to all other brands... by a wide margin!

E. L. BRUCE CO., MEMPHIS, TENN. • WORLD'S LARGEST MAKER OF HARDWOOD FLOORS

BRUCE HARDWOOD FLOORS

Prefinished and Unfinished
Our Job is To Make Better Clients For You

Better Homes & Gardens’ job is to sell families expressed in BH&G; that’s why it on what’s new and good in homes. We help idea for manufacturers fo catch this trained create a demand for better homes — help create audience with their ads in BH&G. Take a look at our March issue. There’s a rambling house that fits a 50-foot lot, a Five-Star house that requires a minimum of maintenance, and two articles on intelligent remodeling.

These advertisers have found BH&G a top medium for sales:

**APPLIANCES**
- Admiral Refrigerator
- Americast Home Freezer
- Boss Oil Ranges
- Cadillir Vacuum
- Coloric Ranges
- CF Gas Ranges
- Dexter Washing Machine
- Easy Washing Machine
- Frigidaire Electric Range
- Frigidaire Refrigerator
- GE Electric Range
- GE Home Freezer
- Grand Gas Range
- Harvestaire Home Freezer
- Home Vacum
- Hotpoint Dishwasher
- Hotpoint Refrigerator
- Kabinder Refrigerator
- L & H Gas Ranges
- Mayset Home Incubator
- Montgomery Ward Gas Range
- Maytag Washing Machine
- OXO, Acorn & Vulcan Gas Ranges
- Philco Refrigerator
- Premier Vacuum
- Pioneer Vacuum
- Roper Gas Ranges
- Sarrel Gas Refrigerator
- Vos Washing Machine

**ELECTRICAL & WIRING**
- Amer. T. & T. Bell System
- Burgers Batteries
- Cofar-Lamplite Fuse Boxes
- Delta Spotlights
- Emer. Power Plants

**HANDYMAN**
- Conco Glue
- Conco Rock Hard Putty
- Lowell Paint Spray
- Plastic Wood
- Schulte Handyman’s Aids Smooth-On Cement

**HEATING & AIR**
- Bournville Electric Thermostat Radiators
- Central Air Conditioning
- Clocks, Automatic
- GE Hot Water Automatic
- Heatilator Fireplaces
- Hydron-Pro Automatic
- ILG Kitchen Ventilator
- Jantred Automatic
- Minneapolis-St. Paul Through Appliances
- Mueller Automatic
- Petrol Automatic Waterbury Automatic

**HARDWARE**
- American Bronze Screen Anchor Fence
- Caucasian Fence
- Firestone Velox Screen
- Insetable Sash Balance
- Pittsburgh Glass
- Yale Trim Hardware

**HEATING & AIR CONDITIONING**
- Amana Automatic Thermostat Heat
- Amana Automatic Heat
- American Radiator Automatic
- Aveni Portable
- Bennett-Ireland Fireplaces
- Burnham Base-Ray Automatic

**LUMBER & MILLWORK & SERVICES**
- Bennett-Ireland Fireplaces
- Chamberlain Comb., Storm-Screen Sash
- Curtis Silhouette Millwork
- Munnite
- Masonite
- Master Steel Windows

**PLUMBING**
- American Central Kitchen
- American Standard Fittings
- Burr’s Water System
- Central Toilet Seat
- Crane Fixtures

**WALL COVERING**
- Imperial Wallpaper
- Snythe Fabric Wall Covering
- Trims Ready-Pasted Wallpaper
- Union Wallpaper
- York Wallpaper

**MISCELLANEOUS**
- Armstrong Ceiling
- Barret Gold Monuments
- Dunbar & Dunstan
- Johns-Manville Roofing
- Perma-Steel Siding
- Portland Cement
- U. S. Steel

**CIRCULATION OVER 3,000,000**
Another outside job has been taken over by the metal that has given permanent beauty to everything from kitchen sinks to building trim. Home owners are installing stainless steel screens for their windows, doors, and porches. They've found that the stainless steel screens do not stain any painted surface beneath them, though many times soaked by rain. And they resist denting and tearing, too. If you would like to keep informed about the many other uses for stainless steel in the home, ask to receive our monthly publication ELECTROMET REVIEW. Write to Department B-3.

ELECTRO METALLURGICAL COMPANY
Unit of Union Carbide and Carbon Corporation
30 East 42nd Street New York 17, N. Y.

PRODUCERS OF ALLOYS THAT MAKE STEEL STAINLESS
First choice
for Title VI in rental housing
MODULAR BRICK and TILE

economical • fire-safe • beautiful

Contractors and builders show great preference for brick and tile for rental housing.

For proof — note the great number of multiple-unit and two-family houses made of these materials. Probably you’ve built some yourself.

Lower first cost, less depreciation and repair, assurance of higher resale value are good reasons for building with brick and tile.

Durability, great structural strength, fire-safety and lasting beauty are others.

Now—in modular sizes—brick and tile mean more savings . . . better housing because of earlier planning and estimating, perfect fit with other modular designed materials, less cutting and fitting, better workmanship, reduced construction time.

NEW SMALL HOMES PLANS BOOK


Send your order to Structural Clay Products Institute, Dept. AB-3, 1756 K Street, N.W., Washington 6, D. C.
THIS IS THE NEW
10 in. SKIL SAW
YOU NEED...

MODEL "107"
10 INCH BLADE

For All Ripping and Cross-cutting in 3 inch Lumber

This new SKIL Saw does just about everything you could expect from a 10-inch power saw. It rips or cross-cuts lumber up to 3 3/8 inch, bevel cuts 2 3/4 inch lumber at 45°. Cuts 3/8 inch copper or aluminum sheets. Cuts 3 inch lead-covered cable. Scores stone, tile, marble, concrete. All this with the customary SKIL Saw speed and efficiency. Ask your distributor today for a demonstration.

SKILSAW, Inc., 5053 Elston Ave., Chicago 30, Ill.
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*Skil Saw is made only by SKILSAW, INC.
There's More To Come

The first bundles of the new Temlok® Insulation Board and Temlok Sheathing are coming off of the production line right now at Armstrong's new plant in Macon, Georgia. And the new Temlok is all we had hoped for—light in color, light in weight, yet as strong as any insulation board ever produced. We are anxious for you to have an opportunity to try it for yourself. And you'll get that chance soon, because, now that the wheels have started turning, it won't be long until the great manufacturing capacity of this plant will make material available in your territory. Armstrong Cork Company, Building Materials Division, 1603 Ross St., Lancaster, Pa.

ARMSTRONG'S TEMLOK
Gold Bond is still carrying the ball for you!

Here is the latest ad in the Gold Bond Saturday Evening Post series which is now in its third year. Too many people have the mistaken idea that today's homes are merely "thrown together." Instead they are getting the finest homes ever built—greater comfort with Rock Wool; fire protection with Gypsum Sheathing; long lasting beauty with Gypsum Lath and Plaster. Of course, the ads feature Gold Bond building products but we think you'll agree they are doing a constructive job for the whole building industry.

NATIONAL GYPSUM COMPANY, BUFFALO 2, N. Y.

(Appearing in full color in the March 20th issue of the Saturday Evening Post)

What kind of dreams is a house made of?

Our friends really thought we were dreaming when we insisted our new home was going to be fire-safe. "Wait till you figure up what it costs!" they said. But the laugh was on them when our dream came true . . . because our architect showed us how to use fireproof materials without spending an extra penny!

Real fire protection in woodframe houses is no dream today with the modern materials now available. It starts with the sheathing that goes on the outside walls under the clapboards or other finish. Just ask for Gold Bond Gypsum Sheathing. These big, husky panels build a permanent barrier against fire, and a stronger, more weather-tight wall at less cost than old style inflammable sheathing.

Your insulation should be fireproof too. Yet not all insulation is fireproof and it will pay you to be sure . . . by specifying fireproof Gold Bond Rock Wool. Gives you full insulation value and absolutely cannot burn. (For your present home, call the Gold Bond applicator and have him "blow" Gold Bond Rock Wool into the roof and sidewalls. He is in the phone book under "Insulation").

For walls and ceilings too, you can have fireproof materials at no extra cost. Just be sure the specifications say "Gold Bond Gypsum Lath and Plaster". And for charming painted interiors, with non fire hazard, there's non-inflammable Gold Bond Sunflex. Comes in many attractive colors and dries in an hour with no "painty" smell.

Fire protection is only one of many sound values that research has put into Gold Bond building materials to help you build or remodel better. Your local Gold Bond lumber and building material dealer can now supply over 150 of these superior Gold Bond Products. He can give you helpful free advice. When you build or remodel, see him first!

NATIONAL GYPSUM COMPANY
BUFFALO 2, NEW YORK

Gold Bond Building Products add greater fire protection, permanency, and beauty at no extra cost. These include fireproof wallboard, lath, plaster, lime, sheathing, wall paint, insulation, metal and sound control products.

GET THIS EXTRA FIRE PROTECTION FOR YOUR NEW HOME AT NO EXTRA COST

THESE ROCK-RIBBED PANELS UNDER CLAPBOARDS, BRICK OR OTHER OUTSIDE FINISH BUILD IN LIFE-LONG FIRE PROTECTION . . .

BIG 2' X 8' FOOT PANELS MEAN FEWER JOINTS... A STRONGER, MORE WEATHERTIGHT WALL...

NOT EVEN A BLOWTORCH CAN BURN THE GYPSUM ROCK CENTER!
BRIXMENT Makes Good Workmanship EASIER!

The pictures below show an example of good workmanship — and of bad workmanship. They also explain why mortar such as Brixment makes it easier for the bricklayer to deliver good workmanship.

No. 2 OF A SERIES—
THE RIGHT WAY AND THE WRONG WAY—IN BED JOINTS

When absorbent brick are used, especially in hot weather, mortar should be spread out over only a few brick at a time. The brick should be placed on this mortar immediately, before it can stiffen.

If the mortar is spread out too far, or if any delay occurs between spreading the mortar and placing the brick, the mortar will be sucked dry and will not stick to the brick placed on top of it.

BRIXMENT makes good workmanship easier because it holds its moisture longer than ordinary mortars, when spread out on the wall. This enables the bricklayer to properly bed the brick before the mortar has stiffened too much.

Brixment mortar has greater plasticity, higher water-retaining capacity and bonding quality, greater resistance to freezing and thawing, and freedom from efflorescence. Because of this combination of advantages, Brixment is the leading masonry cement on the market.

LOUISVILLE CEMENT COMPANY
Incorporated
LOUISVILLE, KENTUCKY
A FAST-MOVING MIXER...

3½—5 Tilling
Mixer. Capa-
city, 3½ cu. ft.,
plus 10% over-
load (A-G-C.
rating).

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

PLENTY OF RESERVE
POWER...

Blue Brute Self-
Priming Centrifugal
Pump. Built in A.G.C.
sizes to A.G.C.
standards.

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.

Your nearby Worthington-Ransome Distributor (write us for his
name) has the complete line of Compressors, Rock Drills and Air
Tools, Contractor's Pumps, Portable Mixers, Truck Mixers and Pavers.

WORTHINGTON

WORTHINGTON PUMP AND MACHINERY CORPORATION
Worthington-Ransome Construction Equipment Division
262 Canal Street, Holyoke, Massachusetts

Expert window engineering and the
most modern metal window fabricat-
ing equipment are coordinated in the
production of these fine, sparkling
aluminum windows.

That's why even the most modest, low
cost home can have windows that are
built for the most luxurious.

Erection is simple, too, and costs much
less than for most other types of
windows.

PROMPT DELIVERY

Send for full size erection details and "Thorn Products for the Home."

ALUMINUM WINDOWS
J.S. THORN CO.
PHILADELPHIA 32 PENNA.
A TELEPHONE RACEWAY COMES WITH THIS COTTAGE

A raceway for concealing telephone wires is an inexpensive feature which adds a lot of convenience to any new home.

Installed within walls during construction, a few sections of pipe or electrical conduit will carry telephone wires to conveniently located outlets. A raceway eliminates the need for exposed wiring on walls or woodwork and assures modern built-in telephone outlets.

Your Bell Telephone Company will be glad to help you plan telephone wiring facilities scaled to cottage or mansion. Just call your Telephone Business Office and ask for "Architects and Builders Service."

BELL TELEPHONE SYSTEM
IT JUST NATURALLY saves you money.
In Pratt & Lambert Paint and Varnish you will find economy, durability and beauty. Easy working, excellent spreading and hiding cut your labor to a minimum.

And the new, authoritative P&L colors will help sell your houses, not only now but also when they may be harder to sell.

If you are not already using Pratt & Lambert Paint and Varnish, write for helpful information. Pratt & Lambert-Inc., 80 Tonawanda Street, Buffalo 7, N.Y.
Far above all other things to remember when buying insulation for your jobs are these two money-saving facts: INSULITE builds — INSULITE insulates at the same time. Two things for the cost of one! A double-duty building material that helps you build better competitive houses — so you can sell them faster—make more profits — have more satisfied customers.
IDEA HOUSE #2, built by the Walker Art Center in Minneapolis to demonstrate the latest advances in home planning and equipment. Featured in the January issue of McCall's Magazine, the house incorporates split-level planning, solar orientation. One of its main attractions is the "New Freedom Gas Kitchen."

4-IN-1 LIVING AREA gives family of 4 plenty of room for work and play. Note built-in storage units, all-purpose table, "conversation" groups. Automatic Gas air conditioner keeps indoor weather perfect 12 months of the year.

"PACKAGED" BATHROOM. Radically new, all-in-one prefabricated bathroom unit has swing-around washbowl, adjustable shower, handy cabinets. Trouble-free hot water service is supplied by an automatic Gas water heater.

"NEW FREEDOM GAS KITCHEN" planned as part of the living features up-to-the-minute appliances in a casual, charming setting. Automatic Gas range built to "CP" standards makes light work of cooking. Roomy Servel Gas refrigerator operates soundlessly, economically. Automatic Gas water heater in stairs supplies abundant hot water.
How you—the architect, the builder—
can use this great new selling tool

Sweeping national advertising has sold all America on the "New Freedom Gas Kitchen." Buyers know them, want them. All you have to do is give them these kitchens — and you cash in on a tremendous, ready-and-waiting market! It's simple as ABC. For your kitchen qualifies as a "New Freedom Gas Kitchen" if it meets these simple requirements:

1. It must have a Gas range built to "CP" standards (Gas is America's favorite cooking fuel...it "feeds" 91,000,000 people daily)
2. It must have an automatic Gas refrigerator (Servel refrigerators stand in the tip-top ranks of America's most-wanted makes)
3. It must have an automatic quick-recovery Gas water heater (an absolute necessity for dishwashers and the new automatic laundries)
4. It must be well-planned and efficient (and you'll take care of that, anyway —aren't American kitchens the finest in the world?)

Hear what bankers...architects...builders...and buyers have to say about the "New Freedom Gas Kitchen" Program

THE BANKER SAYS: "The house with a completely equipped Gas kitchen is a better financing risk...results in fewer delinquencies."

THE ARCHITECT SAYS: "I like the flexibility of planning with modern Gas appliances; the combination of mass appeal with individuality of design."

THE BUILDER SAYS: "A kitchen that's ready to live in, one that bears a "stamp of approval" everybody knows, is a big help in selling a house."

THE BUYER SAYS: "A completely equipped kitchen saves us the delay and inconvenience of installation. Our kitchen will stay modern, will give our house a higher re-sale value."

Free: Complete promotional material to help you tie in with this great program. See your local Gas Company or write

AMERICAN GAS ASSOCIATION
430 LEXINGTON AVENUE, NEW YORK 17, N. Y.
"I Like

Supertreated Pol-mer-ik

because it does a
better job, and saves
brushing time!"

So says R. LEE GRAY, Minneapolis, Minnesota. Like all master
painters, he really missed Supertreated Pol-mer-ik. Now it's back
with its EXTRA VALUES of better leveling, smoother brushing
and higher gloss—the qualities that make for a better painting
job with LESS BRUSHING.

Supertreating does it—that special processing and blending
which strengthens Pol-mer-ik's molecular structure... making
it the finest linseed oil science has produced.

And remember—you get these EXTRA VALUES of Supertreated
Pol-mer-ik AT NO EXTRA COST.

Supertreated
Pol-mer-ik

100% PURE LINSEED OIL

Available in factory-sealed cans

EXTRA VALUE
AT NO EXTRA COST

Product of ARCHER-DANIELS-MIDLAND CO.
680 Reenoke Building, Minneapolis, Minnesota

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

Name ____________________________
Firm ______________________________
Address __________________________
City __________________ Zone ______ State ______

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...of "Glorifying the American Bathroom." Fully illustrated, this complete catalog describes the exclusive Miami-Carey lines...brings you many modern ideas in designing bathrooms for the home, hotels, hospitals and institutions. A postcard will bring your copy by return mail. Address Dept. AB-3.

BATHROOM CABINET... Eye-easy lighting — either tubular or fluorescent. Skillful harmonizing of chromium and mirror. All wiring completed at the factory.

EXTRA CABINETS... May be installed alongside large cabinet over lavatory or on adjacent walls. Door mirror set in chromium-plated frame. Crystal Snow inside finish.

RECESS TUMBLER HOLDERS AND SOAP DISHES... Chromium plated over brass for everlasting lustre. Add unmistakable touch of luxury to any bathroom.

TOWEL BARS... Smooth, sparkling chromium finished...complete selection...both detachable and permanently fixed models.

MIAMI ELECTRIC BATHROOM HEATER... Compact, safe, efficient, this fan-driven heater fits snugly into any wall and is easy to install. Carries approval of Underwriters' Laboratories, Incorporated.

SHOWER GRAB BAR AND SOAP DISH... Eliminates bending under shower while searching for soap. Grab bar lends a safety factor, too.

RECESS SHELF... Another modern Miami-Carey idea! This smart accessory is mirror-lined and available in either the regular silver or rose (flesh) colored mirror.

TUB SOAP HOLDER AND GRAB BAR... All Miami-Carey accessories are easy to install. Their design eliminates open joints. They will not crack or craze.

RECESSED TOWEL SUPPLY AND UTILITY CABINET... The perfect convenience extra for any bathroom. Features a full-length mirror set in chromium-plated frame...and five plate glass shelves.

Miami-Carey Bathroom Cabinets and Accessories
Asbestos Shingles & Sidings • Asphalt Shingles & Roofings
Asphalt Roll Brick Siding • Rock-Wool Insulation
Waterproofing Materials • Roof Coatings and Cements
Asbestos Coverall Wallboard

the Carey line

American Builder, March 1948.

MIAMI 75 years serving home and industry
THE PHILIP CAREY MANUFACTURING CO., CINCINNATI 15, OHIO
THE MIAMI CABINET DIVISION, MIDDLETOWN, OHIO

In Canada: The Philip Carey Co., Ltd.
1537 MacKay St., Montreal 25, P. Q.
The Building Estimator's Reference Book

By Frank R. Walker

The new Tenth Edition contains latest estimating and cost data on everything that goes into house construction, from foundation to finish. It can be used in any locality, regardless of local prices or wage scales. It covers all types of small and large building construction.

For 30 years Walker's handbook has furnished contractors and estimators the most complete compilation of estimating and cost data available. The new edition has been revised and improved in the light of postwar conditions. Thousands of items that enter into construction estimates are logically arranged and tabulated for ready reference. A complete cross-index enables the user to quickly locate any subject.

HELPs PREPARE BETTER ESTIMATES

A copy of this new edition will help any builder, contractor or estimator in figuring and performing work at minimum costs. It will reduce the chance of overlooking an important item in an estimate. New methods of doing various kinds of work are explained and new building materials that have come on the market since wartime restrictions were lifted are fully described.

SEND FOR A COPY TODAY

Send for a copy of the new Tenth Edition of THE BUILDING ESTIMATOR'S REFERENCE BOOK today. Take advantage of the many opportunities it offers for increasing your profits through better estimates. Money back if not entirely satisfactory.

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With The Building Estimator's Reference Book
The Vest Pocket Estimator

This is one of the most popular little estimating books ever used by contractors. It contains 220 pages, 2 1/2 x 5 inches, and is flexibly bound to fit the vest pocket. Estimating and cost data most frequently referred to is presented in condensed tabular form. It can be instantly referred to on the job or in the office.
If you are merchandising minded and are alert to the profit making opportunities of eye appealing quality products, replicate with sales making talking points—thus by all means get complete information on the Even-Temp line of oil fired Floor Furnaces! Join the ranks of other wide awake dealers all over the country featuring Even-Temp Floor Furnaces. Drop us a line today for complete information—you'll be glad you did!

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SEATTLE 4, WASH., U. S. A.
Arkansas Soft Pine is the highest quality of shortleaf pine (Pinus echinata). Uncle Sam himself says this about it in U.S. Forest Bulletin No. 106, "Shortleaf pine in Arkansas is generally considered of a higher grade than the same species grown in other regions. It is soft, of good color and the annual rings show well in the growth."

Where To Get It
Trade marked Arkansas Soft Pine is produced exclusively by big, modern mills. It is well manufactured to standard sizes, scientifically kiln dried and seasoned to specified moisture content, and available to you at local lumber dealers and planing mills east of the Rockies. For complete information, data and how to specify, write now for your copy of this useful handbook.
American Builder, March 1948.

WILFAMCO offers builders these DEFINITE ADVANTAGES

✓ BETTER APPEARANCE — NO WRINKLED FACES. Newly developed Wilfamco roll grooving treatment keeps faces panels flat and rigid—eliminates sags and buckles—improves beauty, increases strength.

✓ BUILT OF LIGHTWEIGHT ALUMINUM—the modern, long lasting, feather-light construction material—eliminates heavy lifting—can't rust, can't rot, termite proof—painting not necessary.

✓ SIMPLE, INEXPENSIVE INSTALLATION One man can install a Wilfamco Door in less time—it's that easy. No time consumed in assembly on the job. Hardware completely assembled—mechanisms require no tricky adjustments.

✓ STURDY, ONE PIECE ALL-WELDED CONSTRUCTION. WILFAMCO DOORS are shipped complete in one 8' x 7' panel. Full length channels at top, bottom, and sides prevent sagging or bowing. Strong diagonal braces keep door rigid.

✓ SAFE, EFFORTLESS OPERATION WILFAMCO Doors are quiet in operation and easy to operate. Dual lifting mechanisms are simple, dependable, and safe—give years of trouble-free operation, eliminate costly service calls.

✓ FAST DELIVERY — ALL TYPES WILFAMCO produces doors all year round—stock piling for better service during the rush months. There's no waiting—WILFAMCO can deliver from stock.

THREE POPULAR MODELS

1 CANOPY—
Swings on ball bearings forming canopy in front of opening. Dual mechanisms are fully enclosed. Requires no headroom—operates entirely within door frame.

2 TWIN CANOPY—
Requires no center post. Doors suspended from exclusive WILFAMCO center mounting bracket allows doors to operate independently of each other—close to a weather tight seal.

3 TRACK TYPE—
Glides up into the garage, out of the way, on silent rubber rollers turning on oil-less bearings. New, simplified hardware reduces installation time to a minimum.

Distributors and Dealers—You'll find the WILFAMCO franchise profitable. Phone, write, or wire for prices and literature.

WILSON FOUNDRY AND MACHINE CO. 301 Wilson Avenue • Pontiac, Michigan
Get This Blueprint Plan Book NOW!

Use this new Blueprint Plan Book as a sales tool. Use it to accurately estimate building costs. Use it for ideas on Built-Ins and ideas on garage styles that will harmonize with the exterior design treatment of the house.

12 COMPLETE BLUEPRINTS
21 HOUSE DESIGNS
GARAGES — BUILT-INS

$2.50

Use this new Blueprint Plan Book as a sales tool. Use it to accurately estimate building costs. Use it for ideas on Built-Ins and ideas on garage styles that will harmonize with the exterior design treatment of the house.

Order TODAY

AMERICAN BUILDER'S New Blueprint Plan Book will be a valuable sales aid to you. The blueprints open up to 16½ inches by 11½ inches, suitable for accurately estimating construction costs of these attractive homes and garages. Colorful plastic binding permits it to open and stay flat while in use. You can help you customers visualize the house from all sides, as all four elevations are shown. Furthermore, the large size plans assist your customers to obtain a better idea of the relative sizes of rooms than is possible with ordinary "plan books." In addition, important details are shown and each plan is illustrated with a large, clear photograph of the house. In fact, no customer can fail to be impressed with the splendid material in this book. All homes in this book have been designed by nationally famous architects.
Everything your customers want in a roof!

The Secret is in the Design. Concealed interlocking — a patented feature — plus hidden nailing, makes Tite-Ons completely windproof. They can't blow up or come loose!

Only Ruberoid Dubl-Coverage Tite-Ons give you all these Exclusive Selling Features!

- Sales come easier (and quicker) when you give your customers all this... all in one shingle! Dubl-Coverage Tite-On Shingles provide:
  - Complete double coverage
  - Proved windproof performance
  - Outstanding good looks
  - Low application costs
  - Fire resistance
  When you sell a Ruberoid Dubl-Coverage Tite-On Roof the customer gets extra years of trouble-free service... you are selling today's outstanding roofing value.
  Sell Dubl-Coverage Tite-Ons for maximum protection in both new work and re-roofing. For re-roofing jobs where double coverage is not required, Standard Tite-Ons are available.
  You can build bigger, better, and more profitable roofing and re-roofing business with Ruberoid Tite-On Shingles. Remember, only Ruberoid makes Tite-Ons.

Like getting two roofs for the price of one!

Tite-Ons interweave to give 100% double coverage, right over the entire roof area!

The RUBEROID Co., Executive Offices, 500 Fifth Avenue, New York 18, N.Y.

RUBEROID

DUBL-COVERAGE TITE-ON SHINGLES
YOUR CUSTOMERS ALWAYS COME BACK

WHEN YOU SELL WITH A·B·C

LIKE a good homing pigeon, your ABC customers come back to you. For repeat sales are the rule when you use the instalment note services of Allied Building Credits, Inc. One firm has made TEN ABC "repeat sales" to the same customer, four or five are not unusual.

Why do ABC customers come back to you? Because it's easy to buy from you. "No cash down, monthly payments to suit income."

They like the convenience of buying this way, without going elsewhere to arrange a loan or credit. If after one ABC purchase they apply directly to ABC for credit on another job, what happens? They're polite! They're politely refused! And sent to you to arrange ABC credit. You make another ABC sale.

Yes, when you sell with ABC, your customers always come back to you.

ALLIED BUILDING CREDITS, INC.
DEPT. B, 3109 WILSHIRE BLVD. LOS ANGELES 5, CALIF.
Complete Instalment Note Services for the Building Industry
NATIONWIDE SERVICES; OFFICES IN PRINCIPAL CITIES.
DO NOT DELAY construction of industrial buildings ... Sharon Stainless Steel for your roof drainage specifications is available for immediate delivery. Architects and builders agree that stainless steel is the finest, most durable material known for gutter, downspout, conductor pipe and flashing.

SHARON STAINLESS STEEL'S extra strength prevents sagging, buckling or cracking caused by heavy accumulations of ice and snow or by widely varying temperatures. A solid metal, Sharon Stainless has a tough, flake-proof, peel-proof surface that is virtually immune to wear from roof gravel, soot or other air-borne abrasives.

SHARON STAINLESS STEEL banishes costs of maintenance, painting and replacement even on structures under constant attack by corrosive industrial atmospheres. Since there is no surface reaction, Sharon Stainless cannot "bleed" ... there is neither patina nor corrosion to discolor adjoining areas. Its permanent, neutral finish is appropriate for any type of construction. And 28-gage Sharon Stainless can be soldered and worked as easily as 26-gage galvanized sheet.

Remember, Sharon Stainless Steel lives up to its name—forever. Full details upon request to

SHARON STEEL CORPORATION
Sharon, Pennsylvania
NEW CHEVROLET
Advance-Design Trucks for 1948

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

★ New Chevrolet 4-Speed Synchro-Mesh Truck Transmission Entirely new Chevrolet developed Synchro-Mesh transmission assures truck users of unparalleled new ease and efficiency in truck operation!

★ New Chevrolet Advance-Design Gearshift Control Unrivalled new convenience and ease of operation in Advance-Design models with 3-speed transmission. Gearshift is mounted on the steering column to provide new efficiency on every hauling job!

★ New Foot-Operated Parking Brake Here’s a revolutionary new feature of Advance-Design Models of advance-engineering! They’re new with 3-speed transmission. The new Chevrolet foot-operated parking brake provides safer, more efficient braking, plus new, clear floor area!

★ New Improved Chevrolet Valve-in-Head Engine The world’s most economical engine for its size—Chevrolet’s power-packed valve-in-head engine is now even finer, with vital new features that assure greater durability and operating efficiency

★ New Multiple-Feature Developments Chevrolet’s Advance-Design provides new spined rear axle shaft attachment to wheel hubs for greater strength and durability in heavy-duty models. . . . New heavier, more durable springs. . . . New propeller shaft bearing-seal design . . .

The Newest Line . . . The Greatest Features . . . The Biggest Values!

Here are the nation’s biggest truck values—with the latest and greatest features of advance-engineering! They’re new Advance-Design Chevrolet trucks for 1948—107 models on eight wheelbases—built to deliver Transportation Unlimited! See them at your Chevrolet dealer’s.

CHOOSE CHEVROLET TRUCKS FOR TRANSPORTATION UNLIMITED!
PORTABILITY - PLUS EXCLUSIVE FEATURES

Just in time for the approaching busy building season is the new MULTIPLEX Model 20A Radial Arm Saw filling a vital need in many wood-working operations for a portable, smaller capacity, general purpose saw, with big saw performance, and at a popular price.

EASILY PORTABLE – Compact, light – weighs only 101 pounds. It rides easily in the back of your car.

VERSATILE – contractors and home builders find it exceedingly handy for inside trim and other smaller capacity jobs – valuable for all kinds of work where a large capacity saw is not required.

PLUS EXCLUSIVE FEATURES – Like its larger brothers, Multiplex Models 30A, 40A and 50A, the smallest Multiplex has the exclusive Versatile Elbow making possible certain operations that cannot be duplicated on any other radial arm saw. For example – only a Multiplex can perform LEFT hand as well as conventional right hand miters up to 90 degrees. Unequaled for ease of operation.

Lightness, compactness, versatility, superior engineering and design and low price – put them all together – they spell MULTIPLEX Model 20A Radial Arm Saw – the perfect combination to meet the needs of all those requiring brilliant saw performance at low cost.

Write today for literature and name of nearest dealer.

RED STAR PRODUCTS, INC.
3455 VEGA AVENUE,
CLEVELAND 13, OHIO U. S. A.
PLATeFORM — BAlLooN or BRACED

Balsam-Wool has the Insulation Answers!

• No matter what the type of construction, Balsam-Wool provides the sure way to insulate. Its method of application and special features assure a lasting insulation job—windproof, moistureproof, highly fire retardant and non-settling.

To place insulation application data at your finger tips, Wood Conversion Company has developed a series of 32 Balsam-Wool data sheets, with carefully prepared drawings and explanatory text. You'll want a set of these sheets for your files—and it is yours for the asking. Just mail coupon!

MAIL THE COUPON FOR YOUR SET!

WOOD CONVERSION COMPANY
Dept. 119-38 First National Bank Building
St. Paul 1, Minnesota

Please send me a set of Balsam-Wool Application Data Sheets.

Name: ____________________________
Address: __________________________
City: ____________________________ State: __________

*REG. US. PAT. OFF.

Waldem-Wool • Products of Weyerhaeuser • NU-WOOD

SEADE INSULATION
“New home buyers are particular about the type of heating they are purchasing,” writes Mr. E. S. Gordy of Gordy & Prang, Inc., Builders and Developers of Wilmington, Delaware. “The neat appearance of Airtemp units, together with the known reputation of the Chrysler Corporation have been of extreme value to us in selling our homes.”

Isn’t it wise planning to give your houses this added sales-appeal? Plan Airtemp heating for your next house or development project, and open the way to faster sales and continuing customer good will. Your Airtemp dealer will be glad to work with you . . . Call him today.

NATION-WIDE DEALER ORGANIZATION

There is a Chrysler Airtemp dealer nearby to serve you. Depend on him for prompt delivery, expert installation . . . and for the speedy, efficient maintenance service that holds the buyer’s good will.

AIRTEMP DIVISION OF CHRYSLER CORPORATION
Dayton 1, Ohio

In Canada: Therm-O-Rite Products, Ltd., Toronto
In the clear, even glass of these WINDOWALLS can be seen the reflection of the lovely trees outside this Wisconsin home. You can be certain the vista opened up by this wide expanse of windows is a stirring one, indeed.

And remember, too, that ANDERSEN WINDOWALLS can be opened in fine weather—to bring in an adequate amount of fresh air, as well as to invite in the view.

This WINDOWALL shows two standard ANDERSEN Gliding Window units with horizontal bars—also available in one-light glazing. Consult Sweet’s Architectural File for complete details. For additional information, write direct to ANDERSEN.

ANDERSEN Corporation
BAYPORT • MINNESOTA
Ingersoll Utility Unit Proves Its Economy, Convenience, Adaptability in Small Homes Construction!

BUILDERS, ARCHITECTS, HOMEOWNERS ENTHUSIASTIC OVER PERFORMANCE UNDER ACTUAL LIVING CONDITIONS!

Proved practical, economical and satisfactory in every way in thousands of installations, the Ingersoll Utility Unit offers architects and builders the means to speed up small home construction and give greater value.

The Ingersoll Utility Unit is compact, requiring less than 80 square feet of floor space. It is complete, simplifies time-consuming specifications—everything comes with one purchase, from one source, right when it's needed. Every part of the Unit is of the finest quality—not a makeshift collection of fixtures—but an engineered assembly of top quality products.

If you haven't learned of all the time and space saving features of the Ingersoll Utility Unit, it will pay you to get the details immediately. Just mail the coupon today—we'll send you complete information explaining how the Ingersoll Utility Unit will help you produce better homes faster, more economically.

MAIL THIS COUPON TODAY

INGERSOLL UTILITY UNIT DIVISION
Borg-Warner Corp., Dept. B3
331 Plymouth Court, Chicago 4, Ill.

We're interested in learning how the Ingersoll Utility Unit is saving time, money and space. Please send details and illustrated brochure.

Name

Firm

Address

City

State
Overlooked by many lumber dealers and builders, the No. 2 CERTIGRADE cedar shingle solves many building problems. The supply of No. 1's is critical but No. 2's, readily available at considerable savings in cost, are ideal for farm buildings, for garage roofs and sidewalls, and for double-coursed residence walls at 10" or 12" exposure. Here is the answer to your demand for exterior building material at low cost.

The Certigrade No. 2 cedar shingle is especially designed to provide a utility grade for good roofs on secondary buildings, for over-roofing and for excellent sidewalls.

Made of world-famous western red cedar, the 16" and 18" No. 2 Certigrade shingles are clear of all defects 12 inches from the butt. When laid on roofs at recommended exposures, two complete layers of clear shingles are provided at every point.

Certified by Inspection

Ask for the Certigrade label (all grades) and you will get a shingle guaranteed by inspection at mill.
Prefabricated Homes Industry Continues Production

TWO YEARS ago great expectations were held for prefabricated homes and many millions of dollars were invested in the industry; although the great hopes for the industry have not been fulfilled a substantial number of homes have been delivered. According to the Prefabricated Home Manufacturer's Institute, prefabricators shipped 4,000 permanent-type homes during December bringing the total for last year to 37,000 units. Shipments for December represent about six per cent of the 62,000 permanent non-farm dwelling units which the Bureau of Labor Statistics reported as having been started during that month. Shipments for the year represent about four per cent of the 860,000 starts of all types reported by B.L.S. Thus about one out of twenty-five of the new dwellings of all types produced this year was prefabricated. The future of the industry still remains uncertain. Approximately 80 firms manufactured homes in 1947 out of an estimated 450 who were reported to have been contemplating production in 1946.

LIFE INSURANCE RENTAL INVESTMENTS

A relatively new field for life insurance companies is the construction and operation of large rental units in metropolitan centers. Already completed and in use are 24 housing projects representing an investment of $138,000,000. Life insurance firms plan an additional investment of $262,000,000. With all projects planned, under way or completed, rental housing will be provided for 200,000 persons (more than 50,000 families) at an investment in excess of $400,000,000. Michigan is the latest state making a move to permit insurance companies to invest in long term housing projects. A spokesman for the Detroit City Planning Commission recently stated that if a constitutional amendment is approved "we could tap the biggest reservoir of finance outside of Fort Knox".

The life insurance companies to which builders of all kinds look for mortgage money are indeed the largest reservoir of liquid assets outside of Fort Knox. In 1946, the accumulation of long-term savings in life insurance companies amounted to 41 billion dollars whereas the nation's gold stock amounts to about 20 billions dollars. The fact that the assets of life insurance companies double every ten years makes it imperative that they seek investment outlets; the most hopeful outlet appears to be residential rental developments or home mortgages.

It is, therefore, believed that the spreading strikes of insurance companies against home loans is only temporary.

COMMERCE DEPARTMENT ATTACKS SHORTAGES

If financing is not available in adequate amounts the present record volume of new construction may diminish substantially. Nevertheless the Department of Commerce is preparing to attack building material shortages through their new office of Industry Co-operation.

Lumber heads the list of shortages that will be attacked. Department officials fear this year's lumber supply will fall far below needs and that other industries will be bidding against construction for supplies, sending prices up.

Nails, critically short last year may be even more so in 1948, unless production is stepped up sharply, officials say. Nail producers have the capacity to meet requirements. They demonstrated that early in 1947 when the emergency agencies talked the steel companies into diverting wire into nails. The O.I.C. hopes it can be equally persuasive.

The key to its plans will be voluntary industry-government agreements. If O.I.C. finds that nail makers need, say 100,000 more tons of steel wire this year than they are scheduled to get, it will try to get the steel industry to sign a "contract" to deliver the wire to the nail companies. It will try to set up similar arrangements with the pig iron suppliers on the one side and the cast iron soil pipe and plumbing fixtures manufacturers on the other.

While O.I.C. plans to allocate the "makings" to the building material producers, it has not decided how it can distribute the materials to builders and contractors. It does not intend to negotiate allocation agreements that will include dealers at first, but it may be necessary.

THE BREAK IN PRICES

Number one news during February was the drop in commodity prices, which if sustained will ultimately affect building material prices. As the chart shows, they have a long way to travel downward before they reach decontrol or pre-war levels. If it develops that this drop in prices is similar to the one in 1920, it may be that building will drop from its present high level for a brief period and will resume peak activity when the price level begins to level off.

The disparity in the price of lumber may be corrected by a general drop in prices. A recent analysis by the Construction Division of the Department of Commerce indicates that lumber costs have increased from an average of 19 per cent of the total selling price of an average house in 1939, to 25 per cent in June 1947 and to 26 per cent in November 1947.
ON AND OFF THE RECORD

OHIO — This state has a state tax on retail sales. It was not set up to build state-owned public housing, but that is what it is doing. Part or all of the accumulated funds collected as sales taxes was pro-rated among the counties for public housing. Many counties accepted the donation. Result is that Ohio is in the housing business with units renting for $37.50 a month. Some counties refused, the funds, because they had no need for more houses.

JOHN W. SCOVILLE — He says that if there is a public reason why tenants should be subsidized, there is no reason why the subsidy should be paid by taking over part of the property of landlords. Says that government imposition of arbitrarily low rents is confiscation of part of landlords' property. That is sound logic.

UNION HOUSING — Local 770, Retail Clerks Union, Los Angeles, says both industry and government have failed, and union is going into housing as an organizer of buyers. Intend to start digging as soon as 1,000 people sign up. Expect to have 12 designs available at prices from $5,200 to $10,000. It's been tried before, and Local 770 is asking for, and no doubt, will get a terrific headache.

ARCHITECTS — The American Institute of Architects adopted a four-point program asking for a two-year program of public housing to meet the needs of low-income families. If A.I.A. is really serious, and actually means that recommendation, there are two fair questions they should be asked to answer. The first is, just how can any program of public housing help anybody, since eventually it throttles all building. The second is, can it be possible that A.I.A. is entirely ignorant of what has happened to building in England, because of public housing.

MODULAR MATERIALS — Producers' Council says that more than 600 manufacturers now are producing or are prepared to produce material in modular sizes. Most of them are manufacturers of brick, tile or concrete masonry units.

ED CARR — The dynamic past president of NAHB scored two more smashing victories for private building in less than two weeks. The first was on "American Forum of the Air," Dec. 30 when he teamed with Morgan L. Fitch in opposition to two noted public housers, Nathan Straus and Leon Keyserling. Sweeping generalities and dramatic gymnastics from the public housers were no match for facts and logic from Carr and Fitch.

TESTIMONY — Past President Carr's second victory took the form of one of the soundest documents on housing ever written. It was his testimony before the Joint Congressional Committee on Housing in Washington.

MORTGAGE MONEY — Late in November there were indications of tightening. Soon after the first of the year there was no doubt. Speculation is that it is part of a planned slight recession to halt inflation, level prices.

CO-OPs — The tax issue, regarding cooperatives can be expected to flare anew before the present session of Congress adjourns. National Tax Equality Association was impressive in Congressional hearings last December.

PUBLIC HOUSING — The National Association of Housing Officials (they are public housing officials) says there are 964,879 dwellings in 5,584 separate developments of the public housing program.

MORE ON WAY — The association adds that local housing authorities and municipalities have filed plans for 360,099 new public housing units in 300 cities in 40 states, at estimated cost of two billion dollars.

WAITING FOR CONGRESS — Most of that program waits for a go-ahead from Congress that the public housers confidently expect.

LOCAL PUBLIC HOUSING — Eight states, say public housers, are not waiting for Congress, but have voted state funds for public housing. Thwarted in attempts to get the T-E-W bill through Congress, public housers apparently are having better success at state and city levels. Builders opposed to all public housing will do well to watch their own back yards as closely as the NAHB watches the Washington scene.

PREFABRICATION — Prefabricated Home Manufacturers' Institute reported the industry sold 20,000 new permanent houses in 1945. Prefabricators have a capacity of 100,000 to 120,000 houses a year.

THE PIRATE PEN

new orleans

Pride is a matter of durability...

Truly, effort is a matter of keeping.

You can't change the old or the new...

Don't let your standards be lower, and can save your own.

Then, painting your bright.

THE FALL FACTOR

3 0 a day
Flintkote Asbestos Cement Sidings...either for new construction or remodeling.

Pride comes with the spic and span appearance this modern siding material gives a home. Satisfaction...with the modest price, the durability, the fire safety that come with it.

Truly, Flintkote Asbestos Cement Siding is the bright side of the siding problem. For, once these sidings are applied they require no periodic painting to maintain their long life. Flintkote Asbestos Cement Sidings keep their beauty for years...and give long years of carefree service.

You can get these popular sidings in either the Straight-Edge Tapertex, or the Waveline Woodgrain pattern. Standard colors are silver gray, white, and super white.

Don't fail to get complete specifications and data on this beautiful, durable building material. Your nearest Flintkote Sales Office or Dealer can supply you with full details and samples. Or, write direct to us.

Then...either for new construction or remodeling...look on the bright side. Use Flintkote Asbestos Cement Sidings.

THE FLINTKOTE COMPANY, Building Materials Division
30 ROCKEFELLER PLAZA • NEW YORK 20, N. Y.
Home Buyers are like elephants—they never forget!

To make your customers remember you with pleasure, popular home-buyer trends must be recognized.

Today the trend is to Electric Ranges. Another million American families switched to Electric cooking last year.

Estimates indicate that this year over a million more Electric Ranges will be installed.

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

Black markets
To the Editor: On all sides I hear stories about black markets in nails, gypsum board, and sometimes, millwork. I have been told that some workers in plywood plants ask for part of their pay in plywood panels, and that they sell the panels to black market operators for a profit. Have heard the same thing about doors. A few days ago, I was told that a dealer who gets regular shipments of gypsum board re-consigns some of the cars to another part of the country at a better mark-up than he can get selling the board to builders in his locality. Then, I was told that an advertisement appeared in an eastern newspaper some time offering several hundred kegs of nails, and that the ad had a key address.

Isn't it time that somebody, maybe one of the Congressional committees, shook down these stories, and found out if they are true? If they are, possibly the bootleggers of the dry era are now in the building material business, and if that is true we need some FBI investigating, and some new laws that will let manufacturers control the distribution of their products and the prices they sell for. If the stories are not true, they should be stopped, because they are causing a bad impression in the minds of the public. If there are just a few cases now and then, they should be showed up.—DEALER.

Commends February Issue
To the Editor: I want to congratulate you on the splendid job you have done on the February issue of American Builder. I have just gone through my copy from cover to cover, and I believe there will be little chance of any of your readers discarding this issue for some time to come. It is the kind of copy that I am sure builders will want to keep in their files.—E. C. ROBINSON, Advertising Manager, White-Rodgers Electric Co., St. Louis 6, Mo.

On Politics and Inflation
To the Editor: Thanks and congratulations for your excellent Publisher's Page editorial “The Real Cause of Inflation” in American Builder by Samuel O. Dunn.

It is hard to understand the mental operations of the authorities who seem blind to the cause of inflation. The extent of the dilution of the value of the dollar seems to indicate a further advance in prices. Perhaps the politicians realize this and are hoping to continue to misinform the public.

It is a satisfaction to many that you point to the source of the trouble.—GEO. DONLEY, President, The Donley Brothers Co., Cleveland, Ohio.
The extra values that Eljer fixtures offer come from nearly half a century of continuous research and manufacturing experience. When you recommend Eljer, you specify plumbing fixtures and quality brass trim that is second to none.

Eljer's color and design policies are right, too, because constant study of homeowners' likes means you are furnishing customers what they want.

The Eljer line is complete... fixtures in Vitreous China and Enamed Cast Iron for every purse and purpose. An Eljer bathroom features extra values that make your customers strong friends. See your Eljer Distributor or write direct to Eljer Co., Ford City, Pa.

ELJER
PLUMBING FIXTURES ARE OUR EXCLUSIVE BUSINESS - 17 ACRES OF IT!
MANUFACTURERS OF FINE PLUMBING FIXTURES SINCE 1904

American Builder, March 1948.
Home builders pick Californian to lead NAHB in program calling for true low-cost housing in 1948

Climaxing its 1948 Home Show and Exposition with the election of Milton J. "Milt" Brock as president, the National Association of Home Builders in Chicago laid the groundwork for intensive building this year in the low-cost housing field if sufficient mortgage money is available from lending institutions to finance them. The association warned that the million-a-year building rate demanded by the government and public can be reached only if there is a secondary mortgage market to make mortgage securities more liquid.

Before the convention got under way, it was believed that growing concern over the tightening of mortgage funds would make the creation of a secondary market for mortgages the chief concern of the 5,000 home builders who gathered on Washington's Birthday at The Stevens hotel and Congress hotel for the exposition. But with the start of the program, it soon was evident that interest was highest in developing plans to reach the lower income brackets with new homes in the $4,000 to $7,000 price range—with emphasis on the bottom of the bracket.

Mr. Brock described reaction of builders to the low-cost home discussions as a "surprising development" and said it reflected the increasing demands on the part of the public, particularly veterans, for cutting home prices.

Attendance records as through on opening day smashed some 5,000 builders roamed the two million dollar exhibit staged by 130 manufacturers of building materials and supplies, power tools, and home appliances. The crowd was non-partial in its attention to the show, crowding the aisles in the exhibit halls in both The Stevens and Congress hotels.

The convention was opened formally by Edward R. "Eddie" Carr, retiring president, in an impressive salute to the colors by an American Legion color guard in tribute to George Washington on whose birthday the program got under way.

At the first general session on Monday, Frank Corrighet, NAHB executive vice president, gave his report. He warned the 4,000 builders jammed into the Grand Ballroom of The Stevens that the problem of mortgage finance was becoming increasingly critical and recommended the immediate extension of Title VI mortgage insurance

(Continued to page 58)
Mr. Lockwood is best known for his outstanding work in behalf of veterans’ housing since the end of the war. As chairman of the NAHB Special Committee on Building Materials and Regulations, which acted in advisory capacity to the Housing Expediter, Mr. Lockwood developed a series of comprehensive reports which resulted in the correction of many government regulations and practices impeding construction.

More than two-thirds of the recommendations of Mr. Lockwood’s committees were ultimately accepted by the government and brought relief to the building materials supply picture.

(Continued from page 57)

and establishment of a secondary mortgage market.

The keynote address was given by Arthur Motley, president of Parade Publications, who indicated that the industry is in bad favor with the public, chiefly because the public does not know the real facts and is confused by misleading propaganda.

"Since your industry is in politics whether it likes it or not," he warned, "as an industry you should begin to organize to make sure that the public is correctly informed of your situation." Present public sentiment, he said, makes this an opportune time to get rid of the malpractices that have raised housing costs.

Taxes Boost Cost of Houses

Retiring President Eddie Carr told newsmen in his final press conference, as top official of NAHB, that the best place to start cutting home prices would be to reduce some of the taxes that go into them. The association’s surveys indicate that at the present time, 25 per cent of the cost of a house is in visible and hidden taxes. He stole away for the conference Tuesday while most members of NAHB were attending the minimum house and other clinics. As a personal prediction, he said builders will hold the line on prices in 1948.

Tuesday afternoon, a battery of panel discussion speakers concluded that new homes will be harder to sell this year, and that a secondary mortgage market will be necessary to insure a steady flow of funds.

Sears Million-a-Year Demand

Past President Robert Gerholz of Flint, Mich., predicted there are buyers for at least a million homes a year for several years, but that the “automatic” market is gone. Miles L. Colean, Washington economist, echoed this view and said that demand pressure for new homes is easing and that the market, therefore, will be more selective.

Convention activity on Wednesday centered about an afternoon session where assembled builders heard an address by Raymond M. Foley, administrator, Housing and Home Finance Agency, and listened to a host of crack construction, veteran and government leaders discuss the need for low cost veterans’ housing. Foley said that the 1948 housing task, shared by established home builders, such as his, was already accomplished. At the opening session on Sunday, it was estimated that at least 5,000 persons viewed the show—an attendance up 30 per cent over last year.
Brock Issues Statement Of New NAHB Policies

A pledge to build more low cost homes in 1948 for low income families was a major point in NAHB policies stated by Milton J. Brock, new NAHB president, in the closing general session of the convention, February 26. To accomplish this pledge, Brock stressed the importance of a sustained and dependable source of home building credit.

To fulfill the builders’ pledge for 1948, Brock called for the joint effort on the widest possible scale, by all segments of our industry—in the provision of adequate financing; in the production and distribution of materials; in high productivity by labor; and in keeping building codes in pace with modern technological progress.

So important has the role of government in the home finance field become, Brock said, that today the government and not the consumer determines the type of house which will be built, and the terms of its financing. Immediate financial steps recommended toward NAHB objectives were that Title VI be extended for 1948 without discrimination against the financing of small homes for sale; that a suitable government agency be designated by Congress to discount or purchase both FHA and VA loans for the term of the Veterans Housing program in such manner that these loans may be eligible for discount by national banks, savings banks, building and loan associations, trust companies, insurance companies, co-operative banks and others without limitation as to the amount discountable by any particular institution in any stated period of time; and that the provisions of Section 203 be amended to increase the maximum loan to 90 per cent on the first $10,000 and 80 per cent on the next $10,000 with a maximum loan of $17,000.

This association, Brock said, demands that local public housing-authorities cease the wide-spread expenditure of federal funds for public housing propaganda. The national office, he said, shall make every effort to bring these prevalent practices to the attention of the Congress and of appropriate government officials.

Brock revealed the recommendation of NAHB to promote slum clearance programs similar to that of the program in Baltimore directed by Robert Bready, president, Home Builders Association of Maryland.

 Builders Evince Interest In Community Development

One of the outstanding exhibits of the NAHB convention is the display of community developments especially prepared for the show by a committee, headed by W. P. “Bill” Atkinson of Oklahoma City.

A detailed analysis, graphically illustrated, was made of ten of the nation’s outstanding examples of successful community developments. The display covered all phases of this type of planning, from the urban land planning and land use for rental units to complete shopping centers or a combination of both.

It is the purpose of the sponsors to continue and enlarge upon this exhibit during 1948 by conducting a postwar Neighborhood Development contest in each of the twenty NAHB regional areas. This contest will be broken down into six different classifications, with a suitable award in the form of a plaque given to the winners in three of the classifications. The winners of each of the regional groups will then be pitted against each other on a national basis and the winners selected by a committee of experts. These projects will then be on display during the 1949 convention. It is the committee’s plan to place the responsibility for the success of the regional contests in the hands of the respective regional vice presidents. This will assure a wholehearted participation on the part of the members. An entry blank for the contest can be obtained from any member of the Community Development Committee.

Britain Views Convention

A. Thomas Gilling, staff correspondent of the Farmers’ Weekly, London, England, was enthusiastic over the convention exhibits. Arriving here recently from London, Gilling indicated that Great Britain has “nothing like this.” He was particularly interested in the exhibit of the “ideal farm home.”

“British farmers and their wives would give anything to have a house like this one. As you know, most English farms are very small and this house adapts itself very well to that sort of farm.”
FHA Officials Aid Builders

In Clinic on Financing

Functions of the FHA from the builder’s point of view—FHA requirements of builders seeking mortgage insurance, and the objectives of these requirements—were the main problems discussed in the panel at the Congress hotel, February 24.

The panel, led by Assistant Commissioner of FHA (Underwriting) Curt Mack, included four brief speeches on various FHA requirements. Minimum property requirements, operative builders requirements, architectural requirements, and the various ways FHA may help the builder in competent land planning were discussed. Emphasis was placed on the fact that the FHA objectives of these requirements are to create uniformity and, at the same time, a flexible program to accommodate the needs of each community.

Alfred W. Jarchow, Chief of Mortgage Credit Section, FHA, first speaker on the panel, explained a new form in which builders may file an application for a 603 commitment. Under the old form, he explained, it was necessary for the builder to file a separate commitment application for each property. Now, under the new form, all properties can be described in one application, and any size group can be covered. Descriptions in the one application under the new form would be the same as in the old form, except there is no separate application.

FHA has done away with the old rule-of-thumb method in determining borrower eligibility, Jarchow said. Now, more eligibility qualities are considered (such as reserve savings, size of family, and stability).

Explaining the way in which FHA can help the builder, Byron Hanke, Chief, Land Planning Section, FHA, explained how the association takes preliminary analysis of the builder’s proposed constructions; and how, through the accumulated knowledge FHA has from the experience of many builders, much valuable advice can be given.

He emphasized the value of land-planning consultants.

Lancelot Sukert, Chief Architectural Section, FHA, spoke mainly on the value of good designing.

"Good designing is good business," Sukert said. It helps the builder to keep the design sold; helps him to establish a reputation for good looking homes; helps to improve the neighborhood, and is a great personal satisfaction to the builder.

Simplicity, harmony, and refinement must be included in the planning of good design, Sukert said.

CROWDED MEETINGS UNDERSCORE INTEREST IN MINIMUM HOUSE

The determination of the nation’s home builders to construct more houses in the low-cost brackets, especially under $8,000, was graphically illustrated by an overflow attendance at the Minimum House Round Table conducted with Nicholas Molnar of Cleveland as chairman.

Throughout the discussions, emphasis was not only on the low-cost house volume scheduled for this year, but also on the fact that these houses must be quality homes, embodying materials, design and livability that will make them sound, long-term financial risks. A number of builders explained their plans to proceed with a minimum house adaptable to expansion. These houses would be located on lots in a well-laid out subdivision planned with the idea that eventually the majority of the homes there would be considerably larger, as a result of periodic expansion, than when they are first erected.

Some builders expressed concern over the reluctance of authorities in some municipalities to accept large groups of houses to sell for less than $8,000, because of worry over development of possible future slum areas. It was explained that this can be overcome in most instances by builders preparing comprehensive plans of the houses, elevations and subdivision plans with large lots, and make personal appearances before city authorities to adequately present the cases for low-cost house developments.

Out of the discussions came the one inescapable fact—that in 1948 more of the nation’s home builders than ever before are determined to build houses to sell for under $8,000 in large volume.

ALFRED GROSS of Long Island was discussion leader of a clinic on “How to make your 603 acceptable.” Attending builders said Al Gross really knew the answers on this point of view—FHA requirements of builders seeking mortgage insurance, and the objectives of these requirements—were the main problems discussed in the panel at the Congress hotel, February 24.

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Modern Heating and Ventilation for Minimum Houses

Under the new FHA program, the language on minimum houses has been toughened up to meet the demands of the FHA enthusiast. Some builders have expressed concern over the reluctance of authorities in some municipalities to accept large groups of houses to sell for less than $8,000, because of worry over development of possible future slum areas. It was explained that this can be overcome in most instances by builders preparing comprehensive plans of the houses, elevations and subdivision plans with large lots, and make personal appearances before city authorities to adequately present the cases for low-cost house developments.

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Nicholas Molnar, new NAHB treasurer, presides at the minimum house round table which was graphically illustrated by an overflow attendance at the Minimum House Round Table conducted with Nicholas Molnar of Cleveland as chairman.

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Panel Discussion on Heating
Rouses Interest of Builders

The tremendous interest of home builders in new heating equipment and new methods of heating, was evidenced by the lively discussions at the heating panel presided over by Harry J. Durbin of Detroit.

After hearing the problems outlined by clinic authorities, those in attendance discussed the various angles on heating as they relate to construction techniques and costs.

Joseph C. Fitts, of the Heating, Pipe and Air Conditioning Contractors Association, handled problems of installation techniques and equipment from the standpoint of the subcontractor. H. F. Randolph, of the International Heater Co., dealt with trends in installation of heating systems.

The consensus of opinion of all those present was that the need for the industry to design and construct better homes in the immediate future is evidenced by the present interest in modern house design.

The need for the industry to design and construct better homes in the immediate future is evidenced by the present interest in modern house design.

Modern House Design Calls For Multiple Use Rooms

Under the leadership of John H. Highland, architect, Buffalo, N. Y., the discussion on the latest innovations in home design was handled in a vigorous and enthusiastic manner.

The need for the industry to design and build better homes in the immediate future was the consensus of opinion of all those present. If the industry is to progress in the future as it has in the past, the time when a house designed in 1937 could be used as a new house is past.

Mr. Highland brought out that the house design in the past was based on unit functions. Due to increased costs the house of today has shrunk in size to the point where multiple-use rooms in operation has been completed with hot water.

Practical Kitchens Needed

The need to take the latest and best ideas for kitchen and laundry layout out of the magazine picture stage and to put them to practical use was stressed by the research experts and advanced designers at the Kitchen-Laundry Planning Clinics.

Headed by Grant Layng, sales manager of the Builder Division, Bendix Home Appliances, who served as moderator, the speakers' table included such authorities as Mrs. Helen W. Kendall, of Good Housekeeping magazine; William Schieck of the University of Illinois Small Homes Council; John Thornton, of Detroit Edison Co.; and Cyril Tasker, director of research for the American Society of Heating and Ventilating Engineers.

The following men are regional vice presidents of the National Association of Home Builders.

Regional Vice Presidents

The following men are regional vice presidents to serve NAHB in 1948 in their respective sections of the country.

A. J. Alexander, Akron, Ohio.
Luther J. Boggs, Atlanta, Ga.
Cliff May, Los Angeles, Calif.
James H. Maloney, Springfield, Ill.
R. L. Kimbrough, Jackson, Miss.
W. C. Chandler, Memphis, Tenn.
Maurice G. Read, Berkeley, Calif.
E. M. Spiegel, Dunmot, N. J.

National Directors-at-Large

A. J. Alexander, Akron, Ohio.
Luther J. Boggs, Atlanta, Ga.
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Paul Hathaway, standing, assistant chief of the Appraisal Division, Loan Guaranty Service, Veterans Administration, answers queries at the VA and GI clinic.

Vets Panel Sees Evidence
Justifying GI Complaints

Complaints by veterans about inferior construction materials and inferior workmanship in houses financed through the Veterans Administration guaranty were the chief problems discussed in the VA and G.I. Loan panel in the Tower ballroom, February 24, in The Stevens hotel.

In the panel, headed by T. B. King, Director, Loan Guaranty Service, V.A., picture slides were shown to point out the various reasons for the veteran's complaints.

Some of the slides showed evidence where homes had been constructed with green lumber; where only a 4-foot head space was allowed over a stairway; where foundations were inferior; where plaster, in some houses had caved in; where siding had been improperly nailed, and was out of line—in one case where siding had been put on upside down; where, as the most outstanding example, a house that cost between $18,000 and $20,000 had been constructed out of plumb; where, as the most outstanding example, a house that cost between $18,000 and $20,000 had been constructed out of plumb.

 Builders construct the homes; veterans select, and lenders finance them. After they made them. Now, Hathaway said, the V.A. is "trying desperately" to establish a closer relationship between the builder and the VA.

To aid in this, Hathaway said, the V.A. is organizing a new group of technicians called "construction analysts," whose job it will be to make closer studies of constructions financed through the veterans' loan programs.

Stressing the importance of the V.A. loan guaranty to veterans, T. B. King said the V.A. has made loans at the rate of 50,000 per month.
Two problems discussed in the panel included the increasing costs in new housing and the tightening up of mortgage finances. In spite of these problems, however, there was general consent that 1948 would be a good building year.

"It is well for us to remember that in relation to the price of other commodities, the price of building materials and labor are not out of balance," Robert P. Gerholz, Flint, Mich., moderator of the panel said. "A builder must see things as they really are: Recognize that the scramble for new houses is over; realize that prices, wages and costs are becoming a daily problem; and recognize that a large percentage of cost factors are beyond his control."

Speaking on the condition of the real estate market, James C. Downs, Jr., president of the Real Estate Research Corp., Chicago, pointed out that the recent drop in the stock market and grain markets has not in the least affected the current housing shortage. In fact, according to Downs, drop in commodity prices after World War I set the stage for the greatest building boom in U.S. history.

"The housing demand is likely to continue to be strong for a number of years ahead," Miles Colean, economist and treasurer, National Association of Home Builders, Los Angeles, Calif. "We, as builders, he said, must face and solve the problem of building low cost housing. FHA Title II will be of little or no help in this part of our program since it points toward the elimination of mass construction—the real key to low cost housing that must be built and delivered to buyers able, ready and willing to own new homes costing between $6,500 and $8,500."

Speaking on the ability of the market to absorb homes at our present rate of production, Arthur E. Fossier, Chicago, Ill., said it was unlikely that the market would continue to absorb homes for more than the next five years. While we will still undoubtedly sell a minimum of a million homes this year at present price levels, he continued, future sales will be governed by the ability to adequately finance, and by the ability of the public to buy. Therefore, he said, unless adequate mortgage money is made available, production will decrease.

1948 was emphasized by Milton J. Brock, treasurer, National Association of Home Builders, Los Angeles, Calif. "We, as builders," he said, "must face and solve the problem of building low cost housing. FHA Title II will be of little or no help in this part of our program since it points toward the elimination of mass construction—the real key to low cost housing that must be built and delivered to buyers able, ready and willing to own new homes costing between $6,500 and $8,500."

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Ten Million Houses in Ten Years Require Easier Funds, Panel Holds

The need for a secondary mortgage market to make mortgage securities more liquid was underscored at an NAHB convention panel on financing ten million homes. The high interest of builders in suggestions for creating such a secondary market completely filled the Grand Ballroom at The Stevens hotel.

The seriousness of the tightening mortgage market was emphasized by the builder side of the panel—particularly in statements from V. F. Buchek of San Antonio, Texas. Buchek declared that western builders are dependent almost entirely on eastern capital for building mortgages. Government financing will lead to government control, not only of the primary or secondary mortgage markets. Financing will affect the market, not only of the mortgages, but of the houses themselves, he declared.

Russell said six billion dollars a year will be needed to build a million homes a year. He estimated that buyers would provide one billion in cash payments. Savings and loan institutions would provide two billion dollars toward new homes, plus an additional billion for purchasing existing housing. Commercial banks, trust companies and mutual savings banks can be expected to finance another two billion dollars worth of new housing, plus an additional large group of existing houses, from funds provided by a net increase in savings and payments on existing mortgages.

Following Mr. Steidle's introduction of the subject, questions from the floor were answered by William A. Shearer of the FHA.

Six Billion a Year Needed

Speaking in the same vein, Joseph Meyerhoff of Baltimore, past president of NAHB, said that we cannot have a working mortgage finance structure without some federal government participation and support.

Indicating a unanimity of thinking among the builders, Thomas P. Coogan of Miami, who later in the day was elected FHA treasurer, voiced recommendations almost identical with those of Meyerhoff and Merrion.

Franklin D. Richards, FHA commissioner, and a member of the panel, told builders of steps taken recently to increase the national ratio of rental housing commitments under Title VI and to conserve the authorization so that the maximum amount will be used for new construction that is ready to start. The new measures, he said, are:

1. To encourage the return and cancellation of commitments where construction is not likely to start promptly and to cancel 603 commitments over 30 days old where construction has not started.

2. To use overtime solely for making inspections, closing all types of cases and processing rental housing cases in 608 projects and 2, 3 and 4 family units under 603.

3. To re-emphasize that quality of underwriting decisions must not be sacrificed in the case of quantity production.

4. To stress that FHA directors assign all available personnel to processing rental housing applications.

5. That no further commitments on single family dwellings under Section 603 shall be issued until written assurance has been received from the submitting mortgagee that it actually intends to make the loans if commitments are issued, regardless of any change that may have occurred in the secondary market.

Others who appeared on the financing panel were T. B. King, chief of the Loan Guarantee Service, Veterans Administration; Rollin Benge, Detroit banker; John C. Thompson, president of the Mortgage Bankers Association and L. Douglas Meredith, executive vice president of the National Life Insurance Co. of Vermont.

Prefab Trend Slowed by Code Restrictions, Clinic Shows

Problems and trends in the prefabricated home manufacturers field were discussed and illustrated at the clinic meetings Tuesday and Wednesday. Harry Steidle, of the Prefabricated Home Manufacturers Institute, Washington, D. C., introduced the subject with a comprehensive talk illustrated with colored slides. He covered all the various ramifications of the industry today—architecture, materials used, manufacturing methods, problems in code, and public acceptance and site erection of the houses.

The fact that prefabricated home manufacturers have not been able to gear their factories to maximum output has thus far retarded the introduction of major savings in materials and labor which could be effected, and will eventually be realized when the public and building code authorities accept new methods of reducing wall thicknesses; low-cost, preassembled plumbing units and similar economies.

Following Mr. Steidle's introduction of the subject, questions from the floor were answered by William A. Shearer of National Homes Corp.; Hart Anderson, of Page and Hill; Peter S. Knox, of Knox Corp.; and Richard F. Voell, of the Ingersoll division of Borg-Warner Corp.

Questions put by builders concerned problems of erection crew sizes, costs, transportation methods, acceptance by their local public and building code authorities and means of achieving volume.
Late Bernard Johnson Honored by NAHB Memorial Resolution

Among resolutions adopted by the National Association of Home Builders at the sixth annual convention, was one in recognition of work on behalf of the organization by the late Bernard L. Johnson. Mr. Johnson, western editor of American Builder for the last five years and editor of this publication until 1942, passed away in Seattle, Wash., December 22, 1947.

The resolution is as follows:

“Whereas, the late Bernard L. Johnson, western editor of American Builder magazine for the past five years, and editor of that magazine from 1907 to 1942, served home builders and the light construction industry with distinction throughout his long editorial career, and

“Whereas, he contributed valuable advice and aid in effecting the organization of the National Association of Home Builders and later worked diligently in Seattle to assist in organizing and developing local home builders associations in Washington and Oregon,

“Therefore, be it resolved that the National Association of Home Builders in annual convention assembled at Chicago, Ill., on this 25th day of February, 1948, does officially and publicly express its sympathy to the bereaved, and its appreciation of the late Bernard L. Johnson’s work in behalf of the National Association of Home Builders, and

“Be It Resolved that this resolution be included in the official proceedings of this Sixth Annual Convention and Exposition of the National Association of Home Builders, and

“Be It Further Resolved, that a copy of this resolution be sent to Mrs. Bernard L. Johnson, and to the American Builder.”

Women Are Making Their Mark in Field Of Building by Practicality of Ideas

Although little is known about the woman operative builder, her influence is being felt more and more throughout the industry, not only because her number is increasing, but also because of her practical ideas on home design.

Like her counterpart—the male—she has turned to the building field as a means of support. She is succeeding, as he succeeds, through sound building practice, building cost economy, and promotion.

Only in matters of house utility does she seriously differ with him. In this phase of the business, she has the advantage of the viewpoint of a mother in the home. Remembering her own difficulties with poor lighting, wrong placement of doors and closets, small bedrooms and inadequate storage facilities, she is enthusiastic and practical when preparing plans which embody more livability.

While some of her ideas may run counter to what men think women want, hers is the voice of experience.

Group Attend Convention

A group of these women home builders attended the recent NAHB convention. Veteran among them was Mrs. Grace Perego of San Francisco who has been an operative builder since 1913. The only woman licensed to build in the state of California, she specializes in apartment buildings and flats. She originated the first patio duplex in San Francisco, and introduced modern apartments to that city. In 1940, she built her first single-family dwelling and is just completing a project of three-bedroom homes built to sell for $14,000. Owner of power equipment, she is about to break ground for her first 608 rental unit. In this ultra modern 14-apartment building, every apartment will have a huge picture window in the living room and a modern kitchen, fully equipped, including a garbage disposal unit.

Mrs. R. B. Butler of Tulsa, Okla., is another veteran woman builder who has achieved an enviable reputation and record in the industry. She started building houses during the depression when she saw houses generally were shabby in appearance. Having always held certain ideas about kitchens, she made kitchen planning a specialty. Today her homes feature the “Personality Kitchen.” Some of her innovations include picture windows in the kitchen and the elimination of the partition between the kitchen and breakfast room. This combination of kitchen and breakfast nook is now being developed into a combination kitchen, breakfast and laundry room with all electric or gas fixtures housed in cabinets to conceal fixtures. As an example of what Mrs. Butler built, she adds, “I pick the plan to suit it.”

Ohio Woman Builds Bungalows

Mrs. Olive McCoy of Canton, Ohio, specializes in the medium price bungalow. She is currently building a project of 12 homes seven blocks outside the city of Canton proper. Her plan for a cottage, entered in a contest held for women realtor-builders at the NAREB meeting in San Francisco, was chosen first for being the most practical and utilizing every bit of space. Bedroom windows spaced so furniture will fit into the room comfortably, and a dinette window placed higher than average so a dinette table will fit under it are important features in her house.

Mrs. Dooley Chalaron of New Orleans is the only woman in her state to hold a general contractor’s license. Her specialty is the Crawford three-bedroom prefabs, although she also constructs a number of custom made homes. Youngest member of this woman home builder’s group in point of experience, she only looks forward to accomplishing a great deal but expects to enjoy doing it.

(Continued to page 130)
Every Month Builders Install Thousands of
Galvannealed Steel...One Piece...Overhead...

Strand
Garage Doors

Builds like Strand's easy installation—no field assembly of the door is required. The door leaf is in one piece; hardware is shop-fabricated and acts as an installation template.

Both canopy and receding (track-type) doors are of welded one-piece construction—no bolts or screws to loosen. Only 2" of headroom required. Heavy rubber weatherstrip across bottom.

Home-buyers, too, are quick to recognize the benefits of this door: the strength of steel—proof against sagging, warping, shrinking, rotting...uniform steel sheets are milled to exact specifications—no variation in quality as with some other materials.

This galvannealed steel door is available now.

Strand Building Products Company
Subsidiary of Detroit Steel Products Company
1710 Buhl Building
Detroit 26, Michigan
Here's how I put big kitchen advantages... into small kitchens!

1. **SAVES SPACE!**
   
   New 6 cu. ft. Kelvinator only 24" wide...
   
   Takes no more floor area than previous 4'4's!
   
   Without changing floor-plans, builders and planners can now make small kitchens work like big ones! For today's answer to the problem of limited space is... KELVINATOR'S "SPACE-SAVER PACKAGE"!

   It's a family-size refrigerator! Kelvinator's beautiful, new 6 cu. ft. "Space-Saver" holds 50% more than previous models... but takes no greater floor space! Big, stainless steel freezer, ample room for tall bottles, shelf space galore for daily food storage!
   
   Precision built to Kelvinator quality standards.

2. **SAVES SPACE!**

   New Kelvinator Range only 21 inches wide... stars full-sized oven...
   
   Modern features!

   A real workaday Electric Range!... this compact new Kelvinator is only 21" wide—and its new design permits installation flush against wall. Features a full-size, 2-unit oven for baking and broiling. Automatic oven temperature control. 7-heat surface units for electric-fast, safe, cooler cooking. Three units in all—one 8", two 6". Beautiful porcelain exterior... Kelvinator quality throughout!

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**Kelvinator's**

"SPACE-SAVER PACKAGE"

For further information, write Kelvinator Division

Nash-Kelvinator, Detroit 32, Michigan
Important Announcement

The publishers of American Builder are happy to announce a new editorial policy that has been planned for some time, and that has been urged by many builder and dealer readers.

Beginning with this issue, publication of the Dealer Edition, containing the Dealer Distribution Section, and directed only to subscribers who are retailers and wholesalers, has been discontinued. Henceforth, all subscribers will receive the same edition of American Builder. Editorial material formerly published only in the Dealer Distribution Section, now is integrated with the general editorial contents of the magazine as news of interest and importance to everyone connected with light construction.

The new policy reflects American Builder’s traditional leadership through the ability of its publishers to alter policies and methods of presentation in keeping with changing conditions.

The disruptions of building activities and material supply channels caused by war, and the attacks on all the major segments engaged in light construction have brought about a new and long desired consciousness on the part of all segments that they constitute an industry of inter-dependent groups, rather than a collection of autonomous groups merely doing business with each other. For that reason, news of distribution problems and trends and of supply conditions is just as important to builders and others in the industry as news of design and of building operations and techniques is to distributors. American Builder’s new policy enables it to render an improved and distinctive service by printing the news of all the segments of the industry in one publication, and thus leading the way to more complete unity of industry purpose and performance.

While the policy was evolved some time ago, putting it into effect required the use of considerably more paper for each issue, and the necessary additional paper supply did not become available until this month. It is with a feeling of achievement in the face of difficulties that the publishers announce the policy effective now.

American Builder’s publishers are convinced that the new policy marks another milestone in this magazine’s progressive 70-year record as the world’s greatest building paper. Now, for the first time, a building paper recognizes each of the elements engaged in light construction as contributing to and dependent on each other; speaks specifically and exclusively to and for all segments of a uniting industry; and provides a powerful medium for aiding the industry in the solution of its problems and the defense of its position.
Building Permanent Real Estate Value

Careful land planning in advance of building insures top prices for new homes and preserves properties against obsolescence in the future.

EARLY postwar construction includes some two-bedroom houses with combination living room and dining area, as shown in the plans for these houses on the facing page. Plan for the left hand house is at left: for the center house, at right. Current demand is for three-bedroom floor plans.
THE rendering at left shows exclusive Tappan Hill, the latest development of County Homes, Inc. Streets conform to the topography. Provision is made for community recreation areas. An old mansion has been remodeled into a club and restaurant.

SPECIALIZING in the construction of middle-bracket suburban dwellings, County Homes, Inc., of New York's exclusive Westchester County area, does careful land planning in advance of every building project to take full advantage of the rugged terrain and natural beauty of its developments. Headed by David Swope, young and energetic builder who is also president of the Westchester Home Builders Association, the firm employs its own architect, office and sales manager and construction superintendent to function as a team.

County Homes did considerable development before the war in the Westchester area, and established its policy of land planning to get the most value out of its developments and to insure that the value would be permanent for the owners of the homes it built. Among the most notable of these prewar projects is Tappan Landing at Tarrytown, N.Y., and Fulton Park at White Plains, N.Y. These projects included a lot of two-bedroom houses which were then in considerable demand. No homes were built during the war, but operations were resumed in 1946. The first jobs included more of the two-bedroom homes, but Mr. Swope reports that current demand is almost entirely for three bedrooms.

The latest project, and one of the largest yet undertaken, is Tappan Hill at Tarrytown. The first home is just being erected at this project. Also planned for early construction is an 80-house project at Irvington, N.Y., and 180 homes at Briarcliff Manor.

On each project, the builder employs the landscape architectural firm of Clarke, Rapuano and Holleran of New York City to make a topographical survey of the site and to plan the subdivision. The survey is very thorough, with all large trees spotted in addition to showing land contours. The plan is then studied to determine the approximate size of lots. Currently, County Homes aims to provide from a quarter to a half acre of land with every building site. This is in line with their established policy. When other builders in Westchester were building lots with minimum width of 60 feet, County Homes set a 75 foot minimum. Now the minimum width is 90 feet. The average depth of lots in a new subdivision is determined from a study of the topographical survey, and streets are then laid out. Care is taken not to run streets around the perimeters. Curves and cul-de-sacs are used to discourage through traffic after the roads are finished. When the development plan is finished, with roadways
and lots all designated, the plan is
turned over for study to William
Vladek, the County Homes architect.

Mr. Vladek makes a rough study
of each lot to determine which of the
several plans on file is best suited to
the topography of individual lots. In
this way, when a client is interested in
a particular site, several suggested de-
signs can be shown him. Or if he has
a preference for a particular design, a
site can be selected which will accom-
modate that design. In making design
selections, care is taken to avoid as
much tree-felling as possible. Not only
does preservation of the trees add to
the attractiveness of the site, but con-
siderable expense is saved.

Although most of County Homes
construction has been of traditional
colonial design, several new ranch

type designs have been introduced in
a small subdivision. Their acceptance
has been very good, indicating that the
East is not wedded to colonial if it can
find some of the modern designs to
buy.

The price of the ranch designs
shown is from $17,500 to $18,000. The
houses have a hot-water radiant heat
installation with gas-fired boiler.
Walls are of dry-wall construction
with 2 inches of cotton insulation. An
80 gallon hot-water heater with auto-
matic sidearm is installed, costing lit-
tle more than the usual 40 gallon tank
and insuring ample hot water supply.
The kitchens each have a 6 cubic foot
refrigerator, a dishwasher and gar-
bage disposal sink. The concrete floor
panel is finished with a rubber base
paint. Copper gutters and leaders are
used. The garage doors are alumi-
num, or aluminum over wood, of the
upward acting type.

The wide variation of design limits
the amount of precutting that can be
done, but a small shop has been erect-
ed on one development for precutting
studs and rafters. Door and window
headers are also assembled. Joists are
lapped to eliminate cutting. The shop
is equipped with a Walker-Turner
radial saw and planer. Skilsaws are
furnished to carpenters.

County Homes does both specula-
tive building and custom building.
Having its own architect, it is a simple
matter to make minor changes in
plans to suit a client. And with the
scope of its operations, workmen can
be kept busy on speculative jobs if
there is a lull in custom-ordered
homes. Of course, at the present time,
(Continued to page 72)
The natural beauty of the site on which this attractive three-bedroom colonial was erected has insured permanent value for its owner for many years in the future.

When radiant heating panels are installed, valves control circulation for each room. The builder found that concrete could be poured over coils easier if studs were nailed to plate through the bottom and hung before coils are laid. Plates serve as a guide for leveling the concrete slab.
nearly every home is sold before it is finished because of the terrific demand for homes in Westchester.

County Homes has acquired much of its land by purchasing estates of wealthy former residents of Westchester. Mansions and large acreages that were maintained by millionaires in the days before high income taxes and high-cost domestic help are now white elephants. The structures themselves are too costly to maintain as residences, even for most millionaires. Usually they have to be torn down to make room for the new homes. In the case of Tappan Hill, however, an old mansion has been preserved and re-modeled into a club and restaurant.

County Homes has sufficient land available for several years of large building operations. Not far from the Tappan Hill development, it has a tract overlooking the Hudson River which was formed by the acquisition of three adjacent large estates.

Mr. Swope is president of County Homes. Sales are in charge of Edward T. Gorman who also is office manager. Frank B. Gimmel is construction superintendent.
A MORE modern design, this house is deceptive in appearance. It has four bedrooms and a total of seven rooms; was especially designed for a client by County Homes architect. Overlooks river.

ANOTHER excellent example where the design fits the site and all natural beauty has been preserved. This home looks as if it had stood in this location for many years instead of a half dozen.
ABOVE are the men responsible for unusual veterans' housing. From left to right: Reno H. Sirrene, Don Wilson, Frank Sheldon, and Milton Kaufman. At right is an air view of the project, located 15 miles from the heart of Los Angeles. Kaufman predicts that Los Angeles industrial area will expand toward the project. Below is a street scene of three typical houses under construction, showing garages, stuccoed exteriors, driveways, and walks. There is a five-foot fence in the rear.

Two-bedroom houses on 60x100-foot lots sell for less than $8,000 in 250-house project, 15 miles from the heart of Los Angeles. This concern achieves low-cost housing by simplifying standard construction methods.
LAST summer there were 35,000 single-family houses under construction in the Los Angeles area, and buyers were beginning to shop around. Completions were so fast on houses which had been started anywhere from three months to two years earlier, that many of the big operators decided to pull in their horns and take it easy.

It didn't seem to be the best time to go ahead with a new project of 250 homes. But Milton Kauffman and Frank Sheldon, his associate, believed they could produce a house considerably under the prices which were being asked for most of the houses on the market. The bulk of the 35,000 houses referred to above were in the $10,000 price class. The fellow who couldn't afford to pay that much would search the Saturday and Sunday building pages of his newspapers in vain—there just wasn't anything for him. Kauffman planned to sell his houses under $8,000—that is, if Sheldon could build them at a low enough cost. Sheldon did, and the first 250 homes were sold out before even one of them was completed—and without advertising.

The featured house is a two-bedroom unit containing 830 square feet of floor space and selling for $7,825 including a one-car attached garage.

The Veterans Administration appraised the houses at the selling prices. F.H.A. made a commitment on the two-bedroom house of $6,700. The terms were $175 down and $48.55 per month to a veteran. A non-veteran paid $250 down. The company took back a second mortgage for the difference between $6,700 and $7,825, minus the down payment, when necessary.

Kauffman has been a leading land developer and builder for 40 years. He developed one of the first subdivisions in Los Angeles County records in 1907. He is the owner of the project under consideration.

The town of Norwalk in which this project is located is 15 miles from the heart of Los Angeles. Several other large operators had passed it up. But Kauffman made more than a superficial study of the area. He looked into the future and saw that the great industrial expansion of Los Angeles would have to be east and south. He believed that here was a place to get started on a low-cost housing project which would sell at the present time due to the tremendous demand for houses, and a place where he could keep on building for many years to keep pace with the growth of industry toward that section. The cost of the land on the first tract plus the subdividing costs was approximately $1,200 per lot. That is exactly the figure at which F.H.A. appraised the lots. The streets are paved; there are curbs, sidewalks and sewers. This is more than many subdivisions selling at twice the price can say. The lots are 60 feet wide by 100 feet deep. Kauffman donated seven acres of ground to the local school board for a school and park.

The builder, Frank Sheldon, has had a great deal of experience in the mass production of houses, using both conventional methods and prefabrication in its various forms. Before associating with Kauffman he was in charge of field operations for some of the largest contractors in the West, having directed the construction of some 5,000 homes. He states that perhaps some day someone will invent a system of producing houses...
acceptable to both the financing institutions and general public by a prefabricating process at a price below the conventional type, but he has not yet seen such a system.

On this project, Sheldon is achieving exceptionally low costs (lower than the one or two prefabricators who remain in this market) by standard construction methods. The studs are cut to length before reaching the job but all the rest of the lumber is cut on the job. The lumber for each house is stacked at the foundations so it will be handy.

Sheldon handles his own carpentry but subcontracts the balance of the work. In order to obtain the utmost efficiency from his men in these days when it is difficult to get topnotch craftsmen, he simplifies the work to the largest degree possible, by training crews to do only one job. For example, one crew lays the subfloors, one raises the framing, and another puts on the roof. The men become acquainted with their work and lose no time waiting for someone to tell them what to do next. Sheldon states that he receives fine cooperation from the union officials. He always informs them in advance of his anticipated requirements and they usually take care of him.

Costs on the two-bedroom model went up about $150 while they were under construction but the company decided to absorb this increase on the first unit. They didn't want to change that magic figure $7,825 which enabled them to sell 250 houses in 60 days without advertising or ballyhoo. This figure by the way includes financing charges of almost $200.

A second tract of 50 homes has since been completed; a third of 565 is well on the way and engineers are now staking a fourth which will take another 500 homes.

During a 120 day period, Kaufman sold 400 houses net, and after deducting the inevitable cancellations, the total amounted to about $3,500,000.

Kaufman is now planning a business center which will require a $250,000 investment on his part. He will erect the stores and rent and lease them in accordance with the practice of most subdividers, thus enabling the community to be provided with all essential services.
"Tailor Made" Home Has Distinction

Specializing in "Made to Measure" houses, Carl Bryan has built a successful homebuilding business—with every owner a satisfied booster

The house shown on this page is typical of a number constructed by Carl Bryan, Pasadena, Calif. Although the houses are not large, the long, low sweeping lines of the design plus the large lots on which they are situated give an impression of roominess and opportunity for good living. Such an impression is not wrong because there is a surprising amount of space in these small homes providing ample facilities for good average accommodations.

The house shown above is situated on an 85-foot lot, 35 feet back from the building line. With the lot figured at about $5,000, the house sells for $19,000. The exterior is finished in stucco, with bevelled redwood siding in the gable ends. The roof is covered with cedar shingles.

Basic materials and equipment include: Standard-Sanitary plumbing fixtures, a Holly gas-fired floor furnace, J-M mineral wool insulation, Schlage hardware, Pomona tile, Quality-Bilt cabinets, Day & Night water heater, select oak floors, and a separate shower stall in the bathroom.

The house featured here was built in Altadena, in the foothills of the San Gabriel mountains.
Outdoor Views—Indoor Comforts

Every room has a wall of fixed and louvered glass panels. Width of roof overhang on all three sides was arranged to cut the summer heat while admitting the longer rays of the winter sun.
NORTH wall of house at left consists of window wall of utility, kitchen and living room. Wide redwood fascia board, hiding gutter, trims roof projection all around house. East elevation is shown at left and below. This side of house is children's play yard. Right, dining terrace looking toward bedroom wing. Redwood siding on walls

CASE study house number two is one of a group of houses that is being built on the west coast. Its purpose is to give direction to the creative thinking being done by an ever increasing number of architects, builders and manufacturers. Their joint objective is to stimulate advance thinking in the minds of the building public, in order to produce good, sound and practical housing.

This house was built by Eric Barclay from plans prepared by Sumner Spaulding and John Rex, A.I.A. architects, both of Los Angeles, Calif. The architects had to solve the problem of designing a house that would meet the needs of extensive entertaining. The plan and orientation were developed with consideration given to the site and the social and private life of the occupants. This house, being of a comparatively moderate footage, was given apparent added increase in size through the extensive use of entire walls of glass. This fact provides a movement of space in and around the house and completely through the living area.

The house as seen from the crest of the entrance drive is dramatic in line and form. The long serpentine
wall stemming from a group of trees near the property line, enters the house several feet below the roof overhang. It separates the motor court, car shelter and entry, from the living terrace and grounds. The curving in and out of this wall offers a striking contrast to the straight lines of the house.

The general plan of the house achieves a feeling of spaciousness and flexibility. The plastered ceilings are picked up by the plastered soffit of the overhang and the long glass walls tend to increase room sizes. The living area is not broken by any floor to ceiling partitions. A twelve foot long case, open at both floor and ceiling separates the dining portion from living room. The one solid wall of the living room contains a split brick fireplace capped with a lip of black soapstone. The wall around the fireplace contains book shelves and paneled cupboards.

The kitchen work space is "U" shaped. Cabinets fill the wall above the counter. Bar storage on the kitchen side of the pass-through gives the counter a double function. Two transparent glass panels slide over one another and enlarge both kitchen and utility room. In the utility room there are drawers and shelves in abundance. Space is provided for washing machine and ironer.

PORTION of east wall of living room at left. Open shelves for books extend from fireplace to bedroom door. Solid row of table-height drawers hold gaming equipment. Bins for record albums below. Balance of east wall of living room below. Fireplace is faced with split brick and capped with lip of black soapstone. The wall above the fireplace is birch plywood
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THE pass-through pantry in kitchen has sliding doors and shelves which open from both sides. Left: Dining room side of pass-through. Divisonal case, open above and below, has sliding glass doors and shelves for storage of silver and dishes. Below left: Recessed niche at end wall between kitchen and utility room. Below: Transparent glass sliding panels separate utility room from the kitchen.
SIMPLE, straightforward lines prevail throughout the exterior, with a contemporary touch in the large windows of the major rooms.

**Here's One for All Builders**

**Anicka**

**BLUEPRINT**

**HOUSE No. 14**

The builder of today is constantly seeking ways and means of keeping the so-called small house in line with mounting costs. In the house shown on this and the accompanying pages, Walter T. Anicka, architect of Ann Arbor, Mich., has produced a design that has been reduced to its simplest form, yet retains that elusive quality of proportion that gives it character and distinction.

This house can be readily adapted to minor changes that may be required to meet the special needs of a builder. The overall dimensions are 22 1/2 feet by 28 feet with the 28-foot width toward the street. The design is so flexible that the 22 1/2-foot depth or living room end, can be placed to the street without any change in plan. With exterior changes in materials, a number of variations may be obtained. This possibility would be an asset to a builder in the event that a number of houses were to be erected in the same locality.

In the study of the plans, it can be observed that economy of construction, especially in relation to framing and roughing-in of the various utilities, was paramount in the mind of the designer. Bathroom, kitchen and laundry are placed one above the other so that supply and waste stacks are concentrated together. The arrangement of the front and service door, opening on to the same entrance porch is unusual. This increases the efficiency and workability of the plan, and also permits the rear of the lot to be used as a garden and outdoor living area.

A terrace or porch can be easily added to the rear of the living room at some future time. A garage can also be conveniently placed alongside the outside wall of dining room, without resorting to major alterations to the house.
Builder creates future business potential by delivering a lot of value in middle bracket homes during period of high cost.
A HIP ROOF, Dutch colonial variation and gable roof colonial, each having different exterior sidewall treatment and some window differences, completely change the appearance of a single floor plan. Note that all garage doors are upward acting in four sections for easy articulation.

land conservatism, they are modern in their construction features and have first-rate materials, secured at a time when material was difficult to get.

It is natural that Mr. Chapdelaine should be in the habit of using high quality materials, for in prewar years he specialized in expensive, custom-built homes. It was only when rising material prices and supply shortages virtually eliminated such construction that he entered the small home field. Even so, he did not turn out any of the small-dimension, two-bedroom houses of which so many thousand have gone up all over the country. He employs several devices to avoid monotony in appearance, even when most of the floor plans are the same. Changed roof lines, reversed plans, different fenestration, varying door treatments and exterior mouldings all contribute to individuality of appearance.

The result has been that buyers in Springfield have been eager to purchase a Chapdelaine home. That eagerness will be carried over to the time when salesmanship again will be required to move new homes—a time not too far away, according to some predictions.

With the exception of the house shown on the first page of this story, all the homes are three-bedroom type. The exception has five rooms on the first floor with an expansion attic for future finishing of two additional bedrooms.

The framing lumber was either fir or Canadian spruce throughout. Floors are good quality oak hardwood. Baths are ceramic tile, and kitchens are floored with inlaid linoleum. Kitchen cabinets are custom-built of wood. The Chapdelaine houses are insulated fully with 2-inches of mineral wool in the sidewalls and 4-inches for cap insulation. Copper and brass plumbing is used throughout. A gas furnace provides forced hot air heat.

Foundations are of poured concrete with steel beams. Walls are plastered. Asphalt strip shingles are used for roofing. Exterior sidewalls generally are of bevel siding or cedar shingle, although brick veneer facings are used occasionally to vary the appearance of the front of a house.

Steel casement windows are used in the most expensive house. The others have double-hung wood sash except where large fixed windows are used.
These, in some cases, are of plate glass, but usually are small paned.

Each house has a fireplace, central feature of the living room. The garage usually is attached to the house by a breezeway which may be narrow or wide, depending on the width of the lot. Chapdelaine does not crowd his houses too closely together, and lot sizes range from 75 feet up to 100 feet in width and are from 100 to 125 feet deep. Existing trees on the sites are preserved where possible.

Mr. Chapdelaine keeps costs down by a precutting operation in his own shop. This is not an on-site shop, although he plans to use some power tools for site precutting in the future. Floor joists, studs and rafters all are precut. Stairs are made and finished in the shop. Much of the millwork is done in the shop also, including exterior doorways, fireplace mantels and kitchen cabinets.
THE OWNER of "Rancliff," Mr. E. C. Raney, was a farm boy who had lived all his adult life in the city, and at 60 years of age wanted to return to farm life.

When they went to the architects, Tibbals, Crumley and Musson, Columbus, Ohio, they had definite ideas of what they wanted incorporated in a new house. They wanted a place where they would be comfortable living alone. They also wanted to accommodate their children, all married, and quite a collection of grandchildren over week-ends. The solution to this problem was to place all the owner's living quarters on the first floor with a suite of three guest rooms with two baths on the second floor. The owner's suite can be locked off from the rest of the house.

Another requirement they placed on the design was that the stairway should curve and be placed inside a curving glass block wall.

The third requirement was that the house should be modern. This idea coming from a gray-haired couple is quite understandable when one realizes that Mr. Raney is the inventor of the automatic circuit breaker and a number of thermo-static controls used by air conditioning and refrigerating concerns.

As might be expected, the house of an inventor would have certain mechanical innovations. The heating system is forced air, and for summer, the air is passed over a coil that is cooled by water from a deep well. The water is then pumped to the roof where it stands in a four inch puddle for added insulation. The overflow is collected and used for watering the garden.

The exposed ground floor is built of native limestone with concrete block backup. The walls above are stucco on wood frame, heavily insulated. The flat roofs are of tar and gravel.
Radiant Baseboard Heating

By J. L. Shank
Consulting Engineer

Radiant baseboard heating, like radiant panel heating, provides heat from a source that is inconspicuous while leaving almost all of the floor and wall space available for use in the arrangement of furniture, draperies, and other household equipment. It can be installed in an existing structure as readily as it can be installed in a new building.

Radiant baseboard heating is clean because while some of the heat is delivered by convection, most of it is by radiation. Heat by radiation heats the objects which it comes in contact rather than the air through which it passes. Since the air is not heated, very little air circulation will be set up in the room by warm air rising. This holds deposits of lint and dust on the walls, draperies, and furniture at a minimum.

Radiant baseboard heating provides a curtain of warmth from the floor to the ceiling. Many installations show not more than a three degree temperature difference between floor and ceiling. This uniform temperature is achieved because the heating unit usually covers the entire outside wall, thus preventing cold air, which normally filters in from the outside, from penetrating the room. In addition radiant heat rays are emitted into the room at ankle height and warm everything within their path. Thus with the cold kept from reaching the occupants of the room, and the floor area blanketed with heat, the overall results are satisfactory.

Radiant baseboard heating is piped in the same manner as conventional heating systems which use radiators or convectors. By having such a piping arrangement, it is possible to reduce the heat in any room immediately by closing the supply valve on the unit within the room.

In some instances it is difficult to get enough baseboard in a room to take care of the heat loss. At times it is necessary to extend the baseboard onto inside walls and other times it is necessary to augment that with radia-
This is the tenth article in the American Builder series to acquaint builders with the fundamentals of good home heating system selection and installation. Again the Anicka two-story Blueprint House No. 10 was used for a typical installation.

The residence used here is the same standard two-story colonial residence, designed by Walter T. Anicka, architect, Ann Arbor, Mich., around which other articles have been written. The heat loss calculations are based on an inside temperature of 70 degrees Fahrenheit, except the bathroom, which is figured on an inside temperature of 80 degrees Fahrenheit, with the outside temperature of 10 degrees below zero.

The heat losses are based on a first floor wall construction of brick veneer, 25/32 insulating board sheathing, studs and plaster on gypsum lath. The second floor wall construction is wood siding, 25/32 insulating board sheathing, studs and plaster on gypsum lath. The window calculations are based on double hung wood sash without weather stripping or storm sash. The infiltration figures are based on between averages and poorly fitted windows and doors. The coefficient of heat transfer for the second floor ceiling was based on plaster on gypsum lath with a 2½-inch thick mineral wool fill or bat.

HOT WATER IS USED AS THE HEATING MEDIUM

After making the necessary heat loss calculations for the building, it was decided that hot water would be the heating medium. While it is entirely possible to use steam or vapor with radiant baseboard heating, it is a general consensus that hot water is more adaptable. To begin with, the baseboard will not expand or contract as much with hot water as it will with steam or vapor, due to the fact that the temperature of the heating medium is not as great. Hot water is more easily controlled because only a slight increase or decrease in temperature will affect the entire heating system.

HOW B.T.U. EMISSION RATE WAS DETERMINED

With hot water as the heating medium, the B.T.U. emission rate of the radiant baseboard panels was determined by trying to utilize as much of the outside wall space as possible, and as little of the inside wall space as possible, a B.T.U. emission rate of 200 was decided upon. The use of 200 B.T.U. provides leeway for the system to keep the building warm regardless of whether the outdoor temperature goes below 10 degrees below zero or whether the occupants desire the inside temperature to be above 70 degrees Fahrenheit. All that is required in either instance is to increase the boiler water temperature, thus increasing output of the baseboard panels.

Coal has been selected as the fuel and, inasmuch as it is practical and economical to heat domestic hot water the year round from the heating boiler, a stoker has been specified to maintain a constant boiler water temperature. While a stoker does not provide a completely automatic system, the fire has to be cared for only once or possibly twice a day in extreme weather.

The heating of domestic water the year round from the heating boiler has proved to be economical. Using the same types of fuel in both a direct-fired water heater and in a boiler which heats the water indirectly, the cost of operation during the summer months is greater with the boiler and indirect water heater. During the heating season, however, it is much cheaper to heat the domestic water with the boiler and indirect water heater. Thus, by taking both methods of heating domestic hot water on a year round basis, it has been proved that less fuel is consumed in the boiler and indirect water heater installation.

In addition to the saving in fuel through the installation of a system of indirect water heating, it has also been found that there is less service on the automatic firing device and less deterioration on the boiler itself. The automatic firing device may be compared to an automobile. If an automobile is run a little each day, less service will be required than if it is run eight months and allowed to stand idle for four months. Likewise if a little heat is kept in a boiler at all times, there will be very little, if any, rust or scale and, consequently, very little deterioration. For economical maintenance, the heating system should be operated year round.
Since air in a hot water heating system has always been a source of annoyance, a great deal of concern was given to its elimination when designing this system. It is a known fact that before a radiator, convector or a radiant baseboard will heat, air must be eliminated. The usual procedure is to provide each radiator, convector or radiant baseboard with a compression type air valve and to open the valve when the unit ceases to function properly. These comparison aid valves are placed on each of the baseboard panels and on the radiator in this installation. Another provision was also instituted to take care of the elimination of air from the system after the initial eliminating process. This is the installation of an Airtrol boiler fitting. Tests have shown that air in the water in a hot water heating system is released at the point of heat application, which is the boiler. The function of the Airtrol boiler fitting is to project the supply main for the baseboard panels into the boiler approximately two inches. This forms a trap in the top of the boiler at least two inches deep into which the air is pocketed as it is released from the water. By forming this trap, the air does not escape to the baseboard panels where the air would have to be eliminated before the panels will heat. The air pocketed in the top of the boiler is eliminated through the Airtrol into the compression tank. Compression tanks are used to take care of the expansion of the water in hot water heating systems when the water is heated. The compression tank with the Airtrol system is also put to the same use as well as taking care of the air which is released from the water as it is heated.

**HOW THE VENTS WORK WHEN SYSTEM IS FILLED**

When the entire system is being filled with water, all the vents on the baseboard panels are opened to permit the release of air in the panels. In addition, the air vent on the Airtrol which is fitted into the compression tank is also opened to permit the floating of the compression tank. After all of the air within the system has been completely eliminated and the system filled with water, all of the vents are closed. Then, before turning on the booster pump to circulate the water through the system, the temperature on the boiler is built up to 220 or possibly 240 degrees Fahrenheit. In building up the temperature within the boiler, the air in this water is released. Since the only place for it to go is to the high point within the immediate system, which is the compression tank, it will go there and replace the water which is contained in the compression tank. The only reason that it can go there, however, is because there is an Airtrol installed in the compression tank, and which in reality is a separator fitting. The Airtrol permits the air which is released in the boiler to flow to the top of the compression tank and release the water from the bottom of the compression tank. This then permits the compression tank to be partially charged with air which will form a cushion for the water to expand against as it is heated. After maintaining the 220 to 240 degrees temperature for several minutes, the booster may then be started replacing the cool water in the balance of the system with the heated water. As the cool water returns to the boiler, it is heated and the air released which will further charge the compression tank. With the compression tank properly sized, an ample air cushion will result.

When water in the system cools, it tends to take on air. Thus if there are any air pockets formed in the piping or radiant baseboards, they will eventually be eliminated through absorption.

Since the system is to be used for
MANUFACTURERS are producing baseboard heating panels in a large number of attractive designs.
THE piping arrangement here is the same as that of a one-pipe forced hot water heating system. The coal stoker-fired boiler is used to heat domestic hot water the year round in addition to taking care of the heating requirements of the home.

To make the system completely automatic and safe, a pressure reducing valve and a relief valve are also installed. The pressure reducing valve reduces the city water pressure to 12 pounds and keeps the heating system full of water. The relief valve is set to relieve the system of pressure should it exceed 28 pounds. Perhaps enough cannot be said about the pressure relief valve, as it is really the safety on the heating system. Without it the system would be dangerous and as explosive as TNT. It is essential to install the best relief valve available, and to test it at regular intervals to be sure that it operates.

Radiant baseboard panels were located in all rooms except the entry. Due to the amount of heat loss in the entry, and the lack of wall space to install a sufficient amount of radiant baseboard, a cast iron radiator was used. Precaution was taken, however, in the selection of the radiator to make sure that the heat which it emitted was as near as possible the type of heat emitted by the radiant baseboard so a cast iron radiator with a radiant front was installed.

The piping arrangement is that of a one-pipe forced hot water heating system. Special flow fittings were used on both the supply and return connections in the main for the radiant baseboards and the radiator. The flow could have been established with a flow fitting on either the supply or the return connection to the units. However, an additional size pipe would have been necessary in order to accomplish the same rate of flow as is established with two fittings.
The A. B. C.'s of Rental Planning

Apartment planning is based on the comfort obtained by the occupants through a substantial measure of light, air and privacy.

Invest an apartment unit with plenty of light and air, add to it a measure of privacy, and the simplest housing unit becomes an adventure in good living, not just another place to hang one's hat. The apartment will then contribute to the happiness of family life and will have a vital influence on the growing generation.

These basic facts were given prime consideration in the planning of the Broadland Place Apartments, one of the largest projects of its kind in Columbus, Ohio. Ten separate buildings, each complete in itself, yet joined together to make a unified group, contain a total of forty dwelling units. These have recently been completed by the owner and builder, J. C. Robbins, under the guidance and direction of Harry T. Roderick, architect, Columbus, Ohio.

An additional thirty-two units are now under construction directly to the rear of the present buildings. One hundred and four units are contemplated for immediate future construction in the same general area.

Each building contains four five-room apartments. Each apartment rents for $88.75 a month including water and garage. Gas, light and heat is paid by the tenant. Each apartment is individually heated with a gas-fired Janitrol unit. These are located in the closet adjoining the kitchen. Thus, each tenant has complete control of the heating of his apartment.

Each of the ten buildings is connected. They are placed in relation to each other in order to form a large open U-court, as indicated on the plot plan. These courts each measure 55x72-feet, with the front of the foremost building set back 60 feet from the main road.

In the construction of these buildings, Mr. Robbins gave consideration to the importance of site selection. Accessibility to industrial, commercial and shopping areas by convenient transportation was of importance.

STREET view of building group shown below
MATERIALS AND EQUIPMENT

Ready-Mixed, poured concrete foundation
Twelve inch thick brick exterior walls
Clay Craft Manufacturing Co.
Johns-Manville asbestos slate and composition roof
Kimsul rock wool batt insulation
Oak and Armstrong linoleum floors
Corbin, Yale and Slager finished hardware
D.H. and fixed wood sash and frames
Fenestra steel sash and frames
Rezo wood slab doors
Janitrol forced hot air, gas-fired heating units
Crane plumbing fixtures
Stone steel hot water tank with side coil heaters (all in basement)
Tappan gas ranges
General Electric refrigerators
Davis Co. steel kitchen cabinets
Libbey-Owens-Ford D.S.A. glass
Vitrolite and Carrara glass walls
Copper plumbing
Rock lath and plaster walls and partitions

TYPICAL bathroom shown at left. All walls are faced with Vitrolite or Carrara glass from floor to ceiling. Typical apartment, consisting of five rooms, shown below. Ample light and air available to each rental unit.
New offices for New York staff of Owens-Corning Fiberglas Corp. demonstrate that fragile glass of yesterday has become an amazingly versatile and practical building material.

INGENIOUS glass manufacturers, backed by intensive research, are well on the way toward disproving the old adage that "People who live in glass houses should not throw stones."

The recently completed building to house the New York staff of Owens-Corning Fiberglas Corp. symbolizes the growth of this depression-born industry and serves as a permanent demonstration of the wide range and numerous applications of glass in fiber form.

More than a score of Fiberglas materials, ranging from air filters, thermal insulation batts, acoustical blankets and acoustical tiles, to glass yarns fabricated into curtains, wall coverings and upholstery fabrics, are used in the building, its equipment and its interior decoration. The architects, Skidmore, Owings and Merrill, were directed to use Fiberglas materials wherever practical, regardless of whether they had ever before been used for similar purposes in an office building, or whether they had ever before been used in any similar application.

A membrane, consisting of a Fiberglas fabric impregnated with asphalt, is installed between the limestone and the brick backing to make the front waterproof. The membrane is also used as a flashing on the roof. The building is completely air conditioned with banks of Fiberglas air filters employed to strain dirt and pollen from the air. Air ducts and piping are Fiberglas insulated, and the product is also installed under all floors and beneath the roof.

THE left wall is an aluminum grille, backed by brown Fiberglas mat over glass fiber batts installed between the furring strips.

ON WALL at right, a black and white fabric of Fiberglas and cotton yarns is mounted over a glass fiber blanket on wood panels.
A number of acoustical treatments are used in ceilings, all of which are of the suspended type. Fiberglas acoustical tile or acoustical board are in the majority. A treatment employed in individual offices consists of sound-absorbing blankets laid on Fiberglas cord stretched behind a fabric of glass fiber. Still another ceiling acoustical treatment is Fiberglas sound-absorbing batts, faced with a thin, porous Fiberglas mat, installed behind perforated metal. Blankets of Fiberglas are installed between studs of plaster-and-metal-lath walls of washrooms, conference rooms and individual offices. Decorative acoustical wall treatments are provided by natural color Fiberglas board, but the same board faced with fabric woven of glass yarns and by decorative fabrics woven of glass and other yarns, stretched over wood panels, with an acoustical blanket between the fabric and the panels.

On large wall areas, Fiberglas board or batts are installed between furring strips, then faced with a porous glass mat. Over this, perforated Fiberglas-plastic sheets, perforated aluminum sheets, or metal grilles are placed as finishes. The curtain, wall and upholstery fabrics are made up of a variety of Fiberglas yarns and various combinations of glass and other yarns. The upholstery fabrics used on furnishings throughout the building provide the first comprehensive demonstration of the use of the newly developed plastic-covered Fiberglas yarns for this purpose. The glass yarn is durable and attractive.
A Store That Speaks for Itself

The House of Modern Chairs in Detroit provides maximum opportunity for both day and night display of furniture. The distinguished, open front makes the store an outstanding show place.

The front of this store makes both the first and second floors virtual showcases for display of the furniture. The large, attractive staircase in plate view in the center says "welcome" to shoppers in a silent manner that is both dignified and cordial.
THE House of Modern Chairs in Detroit is an outstanding show place for modern living room, breakfast, library and recreation furniture. The two-story, 90x140-foot building was designed by Louis G. Redstone, architect, Detroit, for Ely Robinson, the owner. Exterior walls are of cinder block construction, waterproofed on the outside and plastered on the interior. Structural members of the huge two-story visual front are faced with marble.

The center section of the interior of the store is exposed to full view through the large plate glass windows. This increases store traffic because it does so much to minimize the visual barrier between the street and the store's interior. Daylight brightens the sales floor, and at night, the lighted interior makes the whole store a showcase. Windows in the "wings" permit excellent model room displays and the low bulkheads make window shoppers feel as though they were actually in the rooms. The tempered plate glass doors lend a modern note to the entire front and accentuate the openness.

The second floor is also "open" with a glass front. Merchandise displays there can be seen from the street, day or night. The roof extension keeps direct rays of the high summer sun out of the store and at night, lights in the canopy flood the front and the sidewalk.

Patterned glass in some of the second floor windows provides privacy where it is wanted, without sacrificing daylight. Day and night, this glass adds a decorative note. Starting with the setback from the sidewalk in front on through the entire structure, spaciousness, dignity and quality are the keynotes.

INTERIOR of the store is planned to accommodate a large number of individual room displays on both the first and second floors. Below are two more views of the stairway, which is a strong focal point in presenting the furniture displays for view by the public both day and night.
In the remodeling of this store, the designer made an effort to create an illusion of width and to provide an informal atmosphere for the display of women's apparel.

LEFT: General view of remodeled exterior. Introduction of rough stone at corner piers, with extended wood mullions at second floor and wood siding at third floor spandrel, emphasizes informal character of store.

BELOW: First and second floor plans show a solution to a modern merchandising problem in a congested area, as applied to a difficult site.

ABOVE right: Second floor looking toward store front from just beyond stairway. Bullet-type spotlights dramatize special platform displays.

RIGHT: General view of the first floor from a point opposite the stairway. Horizontal wall treatment at the elevator and other areas further emphasizes the illusion of width.

Photos by Charles R. Moor, Columbus, Ohio.
MODERN design of commercial structures, is created, not only to attract the eye and beguile the customer, but the basic thought is to furnish the proper kind of background for the sale of merchandise.

Gerstenfeld's, Columbus, Ohio, is a store for women. Louis G. Gluskin, designer of New York, took over the task of adjusting the requirements of the new owner to the conditions of the old structure. Aside from the exterior walls and floors of the first two stories, all areas were gutted to accommodate the new status.

Luxury Apartments for West Coast

StAID, conservative Pasadena is apparently going modern. Work on this attractive ten story apartment building is to be started March 30, 1948, according to L. D. Owens, Jr., the owner of the project. The land, building, furnishings, landscaping and other details are estimated to cost approximately $1,250,000.

The design is particularly noteworthy. Each of the 48 apartments will have a corner location and a private balcony. These balconies will have ample room for a daybed, and bridge table, or can be used for an outdoor dining area. The building will be operated as a co-operative effort with each apartment sold to the occupant at prices ranging from $15,000 for a single-bedroom apartment, to $48,500 for a luxurious penthouse apartment containing two bedrooms, two bathrooms, maid's room and powder room.

No money will be required from the purchasers until all the apartments have been sold.
Every Apartment Is An Individual Home

In this development, which consists of a group of multiple housing units with interesting and varied arrangements, the privacy and flexibility of the individual home has been preserved.

Producing sound, permanent rental living units at the lowest possible costs, commensurate with good construction, has been the objective of the Don M. Casto Corporation, builders and realtors of Columbus, Ohio on entering the rental housing field.

The Mayfair Boulevard development, the latest of similar projects completed by this firm, is a group of individual buildings each containing four apartments. The buildings are on both sides of the boulevard, adjacent to the Mayfair Housing Project described in the February issue of American Builder. Entrance to the apartments of one group of buildings is from a center hall, two of the apartments being on the first floor and two on the second floor. Individual furnaces and laundry equipment for each tenant is in the large open basement area. The apartments are four rooms each.

In the long rectangular buildings, each of the four apartments in one unit have a separate front entrance. These apartments contain a total of five rooms, with living, dining room and kitchen on the first floor and two bedrooms and bath on second floor. Each apartment has its own basement area, complete with necessary utilities. A perusal of the plans on the opposite page will indicate clearly the separation of the various units, particularly in the latter buildings, where the lines of a private home are followed.

Because of the ready market for this type of dwelling, the Casto organization has been concentrating most of its efforts on rental units. In spite of high building costs, Mr. Casto states that these apartments can be rented at a price showing a fair return on the investment. In this type of setup, all maintenance and care is reduced to the bare minimum.

The architect for the Mayfair boulevard development is J. Edgar Outcalt, an associate member of the Don Casto organization.

MATERIALS AND EQUIPMENT
Concrete block foundation walls
Exterior walls—9 inch brick, 4 inch cinder, blocks, turred, lath and plaster
Bangor slate roof
Kinsul 4-inch ceiling insulation
Gypsum plaster walls
Fenestra and Truscon steel sash
Pease Co. millwork
Bruce Co. prefinished oak floors
Armstrong standard-gauge linoleum
Ceramic tile floor in bathrooms
Corbin, Yale and Skillman hardware
Rybolt Co., and Armstrong gas-fired warm air furnaces
Libby-Owens-Ford Co. glass
Gas ranges
General Electric refrigerators
American Radiator-Standard Sanitary Corp., Kohler Co., and Crane Co. plumbing fixtures
BX and Romex electric wiring
Iron hot water tank with side-arm heater, thermostatically controlled
ARCHITECT'S rendering of a group of rental units above. Plan of four-apartment building with center hall and entrance below. Plot plan of Mayfair Boulevard Apartments at right.

AT left are some of the completed buildings of Mayfair Boulevard project. The different types in their placement to each other establish a staggering building line. Plan of four duplex type building is at right. Each apartment has a separate front entrance.
KNOWN PROPERTY TAXES

Help Determine Rental Rates

Acme Company plans low cost housing project for veterans by close estimations, shrewd management

WITH plans to alleviate the Aberdeen, S.D., housing shortage, a special city committee met with Sheldon F. Reese.

As a result, Reese announced plans to erect 18 new apartment buildings in Aberdeen and, later, 10 more in Huron, S.D.

The committee agreed that taxes would be assessed on a value of $12,482 for each of the 18 structures, a valuation arrived at by comparing the proposed construction to similar constructions in Aberdeen.

With a mill levy of 50.0769, which includes city, county, road, school and the like, the total tax per building each year will be about $642.84.

Reese said one complete “pilot” structure, the first building in the project started at Aberdeen, would be followed by the other 17 structures on an “assembly line” method of construction.

The Acme Co., of which Reese is president, has its own ready-mix and cement block plants to handle aggregate mechanically and cement in bulk.

Aggregate is handled from hopper cars to an elevator; then into large storage bins; weighed out over automatic weighing equipment into ready-mix trucks that deliver the concrete directly into steel plywood-lined forms. Neither cement nor aggregate is handled by hand.

Blocks are lifted onto the scaffolding with cranes, so that the only manual labor involved is in placing the blocks.

Light material is brought into the building with electric hoists; heavy materials, with mobile cranes. Excavation is done with bulldozer and caterpillar tractor, and mobile Quick Way crane digs the footings with a trench hoe. All excavation except trimming is done mechanically.

Since the ground floor apartments will be one-half flight down, and the first floor apartments one-half flight up, easy access to them is provided. There will be two two-bedroom and two one-bedroom apartments on the first and second floors of each building, and two one-bedroom and one two-bedroom apartments and utility rooms on the ground floors.

Footings and foundations are reinforced concrete; outside walls are concrete block. Floors are 2½-inch concrete reinforced with Steel-Tex on bar joists.

Acme Company estimates that building costs for the Aberdeen project will be $1,000,000; and for the project in Huron, almost $600,000.
In 1947 aluminum products manufacturers showed tremendous gains in sales of their materials to the construction industry.

**ALUMINUM**

*As a Building Material*

**SHIPMENTS** of aluminum in 1947 indicate that the building industry now constitutes the most attractive market for that product. Aluminum windows have shown a tremendous increase in use since World War II. Prior to the war, only about 25,000 such windows had been made, and to some extent the use of aluminum windows in homes was considered experimental. In 1946, however, more than 500,000 of these windows were fabricated, and estimates for 1947 place this figure well above the 2,000,000 mark, representing approximately 25,000,000 pounds of aluminum.

In recent months there has been an accelerated demand for aluminum for home and commercial building heating and ventilating ducts and fittings. Hundreds of sheet metal contractors are using aluminum for this purpose, and more than 100,000 homes are now equipped with aluminum ducts and fittings. In a domestic heating installation, an average of 150 pounds of aluminum is used on each housing unit.

In 1947, the output and sale of aluminum nails showed a steady increase in volume. At least nine manufacturers are now producing aluminum nails from a specially developed Alcoa alloy wire. The most promising use for aluminum for this purpose is in the specialty nail field, particularly where aluminum is used as the base metal to be fastened. Aluminum roofing nails are, and should be, employed for installing aluminum roofing and siding, aluminum shingles, aluminum gutters and downspouts, and aluminum flashing. In addition to roofing nails, common nails, gutterspikes, slatting nails, tacks, other special types now are being manufactured from aluminum.

The use of aluminum screens, thresholds, venetian blinds, awnings, garage doors, gutters and downspouts, and prefabricated house panels showed a marked rise in the last year. Large amounts of aluminum go into the building field now in the form of clapboard siding, corrugated siding and other forms of siding and roofing. The material is also being used extensively in the manufacture of factory-fabricated houses. Aluminum wall facing is becoming increasingly popular in large office and industrial projects. Designers and builders are calling for a large number of aluminum castings in the form of panels, copings and decorative building trim.
MODERN dairy barn was designed by Ward B. James, Columbia Valley Lumber Co., Bellingham, Wash., for Standley Graham, Ferndale, Wash. Chisholm and Eiford, Bellingham, Wash., were the contractors. Plans show the handy loading platform above is Graham's own idea for putting grain into the feed hoppers. There is one hopper for each of the six stalls. At right, Mr. Graham is letting feed down into the first stall. The device, made by Graham, lets down one pound of feed at each turn of the handle. Note the cement floors, excellent lighting

STANDELY Graham's new compact milking parlor is designed to keep down material costs. End of the parlor is only twelve feet wide. Note the roofed-over walk for three entrances

STANDELY Graham's new compact milking parlor is designed to keep down material costs. End of the parlor is only twelve feet wide. Note the roofed-over walk for three entrances

Designed for material cost saving, milk barn combines good ventilation, facilities for cleanliness, and new ideas for compact convenience. Total cost about $6,500
Compact Dairy Barn

By doing his own wiring and plumbing and helping out in the construction, Standley Graham, Route 1, Ferndale, Wash., kept the construction cost of a new, compact milking parlor to about $6,500.

Graham's ideas, incorporated in a design by Ward James, Columbia Valley Lumber Company, produced an over-all compactness in the building with emphasis on utility and convenience. The plans considered everything from feeding procedures to the loading platform for milk.

Grain is raised from a truck or wagon bed to the upper story of the parlors by a carrier system operating on a track. The track carries the grain back to separate feeding hoppers, directly over the milking stalls, where it is automatically dumped.

Wooden feed chutes then carry the grain down from the hoppers to each manger (six in all) where it is let into the mangers by a steel paddle wheel. The wheel, designed with four fins, measures out a pound of grain at each turn of the paddle.

The floor plan of the parlor was taken from a plan recommended by the Seattle Health department.

A counterbalanced stairway that folds upward when not in use makes it easy to reach the upper story from the entrance to the back alley. Another counterbalanced structure is a door that slides up into the milkroom wall through which cans can be put on the shipping platform.

These features—along with a convenient dump room, utility room, elevated stalls for the cows, and the many windows for a maximum of natural lighting—show what can be done with new ideas, a small amount of space, and a minimum expense.

TOP picture shows how feed carrier is lowered to trailer. Above, is shown handy arrangement for loading platform at milk house. Note roof vent. Below left, is stairway to overhead feed storage. Stairs are on counter balance and recede into ceiling when not in use. Below center, shows close-up of roofed-over walk between milkroom, parlor, and shipping platform. Below right, is milk cooler, arranged close to loading platform.
THE home building and modernization market is rapidly expanding beyond the reach of city water mains. This expansion is in conformity with a trend which has prevailed for many years, although all the conveniences of urban dwelling were not available to the rural dwellers until recent years. Today, beyond the water mains, all the sanitation facilities and modern techniques of living are being incorporated in houses and light commercial structures adjacent to electric power through installation of electric water systems.

Dealers in electric water systems face a business this year that will be in excess of $100,000,000. The sale of products and services related to the installation of rural water systems boosts that figure by many more millions, and the market is being expanded systematically by the federal government's rural electrification program, not to mention the rural extensions being constructed by private capital.

All this is of tremendous import to all segments of the building industry. It not only means that better, more modern homes can be built in rural areas, but it presages a tremendous remodeling and modernization market for years to come. Although fewer than 500,000 new houses were actually completed in the United States in 1946, 6,143,968 dwellings were wired for electricity, a large percentage of these houses were in the rural sections.

Not all of the rural homes wired were equipped immediately with electric water systems, but it is a certainty that every rural home now equipped with electricity constitutes a potential customer for a water system. Wide-awake retailers in areas where rural electrification is being effected are following the electricians with numerous sales of water pumps.

Once a water system is installed in an existing rural home, a whole new program of modernization possibilities of prime interest to builders and dealers is possible. A kitchen modernization job is one of the first projects on the docket. This involves considerable labor as well as sale of materials and kitchen cabinets. The firm which establishes a reputation for being kitchen-modernization specialists in a rural area, where electricity is being made available for the first time, is headed for a steady flow of good business.

Another major project in any home where electricity is available for the first time is a modern bathroom. Again the sale of considerable material as well as labor is involved on each job, and although plumbing fixtures are still in short supply, alert builders and dealers are watching the potential in their trading areas so they can take over when materials and labor are available.

With farm income at an all-time high, and farm savings and cash resources exceeding all previous records, many new farm homes will be built in the years immediately ahead. The coming of electricity and modern water systems will accelerate that trend because in many instances the old farm house is totally unadaptable to modernization incorporating the use of electricity and water.

In other cases where the house is comparatively new and in a good state of repair, it will require a complete remodeling job from basement to attic, including modernizing the old barns.

Along with modernizing house and barns, the coming of electricity to the farm will make possible many farm improvements in their fields and pastures. The installation of automatic milking systems, electric fencing, and modern grain drying systems will make life easier and more productive on the farm.
A huge market for the building industry is being developed by electrification of rural areas and the resultant demands for conveniences formerly unavailable beyond city water mains.
How to Install A Metal Door Frame

One-piece assembly produced by Aetna Corp. for home use designed for easy installation

A NEW steel door frame made by Aetna Steel Products Corp., 61 Broadway, New York, arrives on the site assembled in one piece, with head, two sides of trim, anchor clips (or T-anchors, if the frame is to be installed in masonry walls), hinges, steel dust box, and brass strike spot welded to the frame.

The frame is secured to wood stud partitions (plaster or dry wall finish) with metal clips; to masonry partitions with loose T-anchors placed at masonry joints, three per jamb; and is secured to steel stud walls by anchors welded to the frame which may be bolted, welded or securely tied for proper anchorage.

For use in wood stud partitions with plaster finish, these frames can be installed before or after partition studs are placed. In wood stud partitions with dry wall finish, the wall board should fit tightly against the back band of the frame. Where thin boards are used, it may be necessary to place shims between the stud and the board.

Flanges of the anchors for Aetna’s frame (for dry wall or plaster finish stud partitions) come flattened against the back band and are bent into position when the frame has been placed in the wall opening.

One of the advantages found in the use of metal frames is the added rigidity to the opening. Aetna has gone a long way toward adding the advantage of simplicity in installation of door frames.

 positions of metal frame installed in wood stud partition with plaster finish.

 positions of frame in wood stud partitions with dry wall finish. Where thin boards are used, it may be necessary to place shims between stud and board.

 when metal frames are used in steel stud partitions. T-anchors may be bolted, welded or securely tied for proper anchorage. See illustration of anchors, above left.

 in masonry partitions, Aetna provides T-anchors for proper bond between frame and partition. T-anchors should be placed at masonry joints, three per jamb.
Accurate Method of Cutting Rafters Between Wall and Bow String Type Truss

Simplicity of procedure is sacrificed in order to obtain more accurate results and less waste. Though a bit more complex, it eliminates guesswork.

RAYMOND R. NEAL, of Phoenix, Ariz., suggests the following method for cutting rafters between a bow string truss and the end wall where end of rafter rests on a plate or in a stirrup. This method eliminates guesswork and saves on materials.

The method employed by Mr. Neal is of particular advantage where the building is out of square or where the truss and wall are not parallel. All of the rafter cuts will fit accurately if care is used in the layout. The following procedure should be followed:

1. Lay out rafter positions on truss and wall.
   a. When laying out rafter position on the truss, measure from bottom of truss to top point of rafter on truss for each pair of rafters. (See drawing “A.”)
   b. With a plumb bob or hand level draw a line down from outside top point of rafter layout on truss, and measure from bottom of rafter layout, to this line, for each pair.
   c. An additional measurement is necessary for each rafter from top of rafter layout on truss, to top point of rafter at the wall, if the building is out of square. (See drawing “C.”)
2. Measure the distance from wall to truss. (See drawing “C.”)
3. With the above measurements a line jig can now be set up.
4. Draw or snap line on wood or cement floor, equal in length to distance between truss and wall. (Drawing “D.”)
   a. Draw or snap a 90 degree upright line at one end equal in length to height of truss at center. (Drawing “D.”)
   b. At the opposite end another 90 degree upright line should be drawn, equal in length to desired distance above plate or stirrup for top of rafters. (Drawing “D.”)
   c. On the truss height line the individual distances from bottom of truss to top of rafter layout can now be marked. (Drawing “D.”)
   d. If the building is out of square, the measurements taken under (1c) are now used, and the wall end of jig is shortened or lengthened to this measurement.
5. Place top of rafter timber to proper points, as shown in drawing “D” for each pair of rafters (or individual rafters if building is out of square).
6. Raise lower or upper side of timber (depending on which side of truss the rafter fits) to measurement taken from plumb line in drawing “A” as shown in drawing “E.” Transfer or scribe along straight edge the lines from the floor jig to timber, while timber remains raised as above.
7. Cut on lines and rafter will now fit properly.

Mr. Neal is a carpenter foreman who has had charge of a number of large housing projects.
How to Make a Non-Swelling Threshold

TO make a non-swelling threshold for basement and small factory doors, P. A. Herman, LaCrosse, Kan., suggests imbedding a 1½ inch diameter iron pipe in concrete across the width of door opening, allowing pipe to extend ½ inch above floor surface.

How to Install a Glass Block Store Front

RAYMOND R. NEAL, Phoenix, Ariz., submits the following suggestion: To properly anchor glass blocks to concrete curb, a ¾-inch tie rod is imbedded in the curb every fourth course of the glass blocks. These rods extend through the glass block wall at mortar joints, and are capped with a countersunk nut at top of wood sill. The concrete curb should extend at least 4-inches above the sidewalk line.

How to Remove Dowels

BORE a small hole in center of dowel. Insert a 2-inch screw about 1 inch into hole. Place a block of wood under heel of hammer and use in the same manner when pulling nails. Quick pressure on handle will force old dowel to come out. H. B. MASON, Duncan Falls, Ohio.

How to Make a Saw Clamp

THE saw clamp suggested by J. G. Caldwell, San Mateo, Calif., can easily be made from 1x4 inch lumber. When in use, it will hold the saws tight and prevent any vibration or screeching. It should be secured to the wall near a north window.

How to Make a Roof Purlin Plum

RAYMOND R. NEAL, Phoenix, Ariz., submits the following suggestion: To properly anchor glass blocks to concrete curb, a ¾-inch tie rod is imbedded in the curb every fourth course of the glass blocks. These rods extend through the glass block wall at mortar joints, and are capped with a countersunk nut at top of wood sill. The concrete curb should extend at least 4-inches above the sidewalk line.
The dressing room is a very individual room as well as a very functional room for which it is most suitable. It is used by all members of the family as well as for guests and for entertaining. It is always necessary to build it in part as an en-suite and as a lavatory. To this end, it is necessary to have the dressing room always in the same line of the rest of the house and to have it accessible from some of the main rooms. It is a room that can be made very attractive and very convenient for all members of the family.
GIVING BUILDERS SERVICE

Builds Big Business for Small Yard in First Eighteen Months

BY CATERING to the builder and small contractor, the Myrtle Avenue Lumber Co. of Monrovia, Calif., has grown from a small business to one of the most modern and progressive yards in the San Gabriel Valley—in just 18 months.

In June, 1946, the business was operated from a temporary office located in an orange grove. Today, on the same site, is an attractive, modern office and yard—proof of growing success.

Although there are many large housing projects in the community, Norbert Bundschuh, general manager, feels that a more permanent business can be established by catering to the smaller builder. He made more than 1,200 separate sales in a recent month. Bundschuh is assisted by Walter H. Henkel and Paul Forman. All three men are young, and determined to make a success of the business.

The design of the office, conceived by C. William Ainley, architect, was intended to make it an actual display room. To do this, the materials used in the construction of the office were those which would be offered for sale. The interior is panelled with T&G Douglas fir and knotty pine, both used in random widths. Display islands, also, were made of knotty pine.

Lamineer, a plastic material suitable for drainboards, was used for countertops. The floor of the office is asphalt tile. Soundproofing was effected by using Acousti-Celotex on the ceilings. Six spot lights, inset flush with the ceiling, light the store. These lights, together with the neon-light sign on the roof, are operated by a time clock which turns them on and off.

The individual displays are well arranged and kept attractive by adding new merchandise as soon as that on display is sold. Adequate ventilation is provided by transoms arranged at the top of fixed plate glass windows. The windows extend from about a foot above the floor to ceiling height.

On both sides of the windows are expanses of 1x12 T&G red cedar siding, treated with one coat of oil and...
Catering to builder and small contractor has paid big dividends for Myrtle Avenue Lumber Co. Maximum effort is made to keep materials on jobs to avoid construction delays.

LOADED trucks have steel straps around lumber to prevent breakage, reduce pilferage.

two of dull varnish. The area below them is built up with Arizona flagstone.

The sidewalks are wide, extending from the building to the street. Although the yard is located on the main street in Monrovia, plenty of parking is available because the location is away from the crowded business section.

The display fences are constructed of six types of fencing, all designed by Ainley. They are made from stock lumber in different patterns and are about 4 feet high, painted in cream color. The idea here was to show the builder what could be done with ordinary materials to create a variety of designs for fences.

The yard has been successful in selling merchandise and, also, successful in getting merchandise. Getting materials has been a big job, as one would expect, for a new yard. Many

ATTRACTIVE use is made of knotty pine paneling in partition dividing office from sales area.
manufacturers adopted the policy of taking care of their old customers first, but when material salesmen call at this attractive and friendly yard, they are impressed; they believe in its future and have a tendency to do everything possible to take care of its requirements.

The yard carries every conceivable item needed to complete a house except plumbing and electrical materials. If a job requires an item in the building material field which is not stocked, the firm ascertains where it can be purchased, obtains it, and delivers it to the customer.

An unusual practice of the yard is to put a steel strap around loads of lumber. This tends to prevent breakage when the load is dropped to the ground, and it also helps to reduce the amount of pilferage when the lumber is left on the job site any length of time before being used.

The company has one flat bed Chevrolet truck and an International KB7 with a roller bed. All orders, regardless of size, are delivered promptly in accordance with the policy of working with builders to avoid delays due to lack of materials on the job.

The company does a consistent advertising job, not only in the local papers but in papers in the adjoining territory which is considered as its trade area.

AT Christmas time, Bundschuh erected this unusual display. Six spot lights inside building and neon sign (front) are operated by time clock. Note attractive window display.

PLAN is one of C. William Ainley's used in the Myrtle Avenue Lumber Co. display fence. Fence at yard has six different designs.

ANOTHER fence design by Ainley. The attractive patterns are made from stock lumber. are about 4 feet high, painted in cream color.

LEFT shows interior of Bundschuh's office paneled with T&G Douglas fir and knotty pine. Ceiling is soundproofed with Acousti-Celotex; floors are asphalt tile.
ABOVE are two designs used in display fences. Below is yard plan of company.

INDIVIDUAL displays are kept attractive and well arranged.

ABOVE are two of Ainley's designs used in the display fence. Below is a large portion of fence, built around yard.

Note: The floor plan and yard plan are provided to illustrate the layout of the company's facility and display areas.
CONTINUED shortages of certain lumber items and other kinds of building materials are apt to obscure the fact that the pipe lines in many cases are beginning to fill up. By slow degrees supply is catching up with demand and when that long-awaited day finally arrives, the retail lumber industry will be confronted with a completely different set of problems.

These problems are not new. As a matter of fact, they are almost as old as the industry itself, for they revolve around the question of how to sell merchandise at a profit when there are more goods than buyers.

Perhaps it may seem a bit early to do any great amount of speculating on what to do and how to do it, come the day when competition will rear its well-known head and the question will be “What price?” instead of “Have you got it?” or “How much can you let me have?”

Take lumber, for example.

Demand continues heavy, and especially for certain hard-to-get items, but already substitutes are popping up to relieve the situation. The substitutes may come from another species, size or kind of lumber or they may be the product of another industry. The fact remains that no single product has ever proved to be indispensable to our economy. What is no longer to be had invariably is replaced by something that usually is better and more economical.

At the moment we hear much about the continued scarcity of lumber and the high prices which prevail. Often we hear it claimed that lumber, instead of catching up, is losing ground.

In order to get a more comprehensive view of the situation, keep these three figures in mind—14, 5 and 9—which represent the total lumber inventory on hand at three important periods—(1) back in the days when supply was normal, (2) at the low period following the war and (3) at the present time.

Fourteen is the total number of billions of feet of lumber on hand at the end of 1940.

Five billion feet is the amount at the low point... the first quarter of 1946.

Nine billion feet is where we stood at the end of the third quarter of 1947.

The actual figures in all cases are the estimates of the United States Chamber of Commerce.

Total lumber stocks at the close of 1940 amounted to 14,447 million feet, divided as follows: Sawmills and concentration yard, 8,352 million feet; retail yards, 6,095 million feet.

At that time little was heard of lumber shortages and there seemed to be enough on hand to meet the needs of a busy nation.

Then came war which not only diverted lumber to military purposes but eventually reduced production, due to shortages of manpower and essential mechanical equipment.

The low point brought about by a variety of uncontrollable circumstances was reached at the close of the first quarter of 1946 when the total national inventory amounted to 5,250 million feet. Sawmills and concentration yards, 3,541 million feet; retail yards, 1,709 million feet.

From this unprecedented low point inventories began to creep up gradually despite the fact that demand never was greater and shortages continued to be the order of the day.

At the end of the third quarter of 1947, the national inventory had recovered to the point where it totaled 9,487 million feet. This was 66 per cent of the amount on hand at the end of 1940 and an advance of 81 per cent above the 1946 low.

That’s where we get the three figures mentioned at the beginning—14, 5 and 9.
Although scarcity of certain lumber items and other materials obscure the facts today, the lumber supply is slowly catching up with demand. When that long-awaited day arrives, the lumber industry will be confronted with new problems.

5 and 9. In round numbers they are easy to remember and show at a glance the substantial progress that is being made.

A further breakdown shows that retail stocks have advanced from 1,709 million feet (the low point) to 3,779 million feet near the end of 1947, which is an increase of 121 per cent. During this same period inventories at the sawmills and in concentration yards went up 61 per cent.

It will be noted that the final estimate was at the end of the third quarter of 1947. It does not include the last quarter of that year or the first quarter of 1948.

During these six months, construction was retarded substantially by severe weather conditions while the same slow-down did not occur in production. This should result in an even more favorable showing, so far as current inventories are concerned. A year ago there was an 8 per cent increase during the comparable period. This year it should be even greater.

We are not claiming that lumber is plentiful or that there now is enough to go around, but merely are attempting to show by government statistics that the pipe lines are beginning to fill up, even in the face of the greatest demand in history.

How come?

In order to answer that question, let's take a quick look at lumber production figures for the past few years. The year 1920 is a good place to start since the years between 1920 and 1930 were ten big lumber years . . . . the largest production decade, by far, in the history of the lumber industry. It was during this period that we broke all existing home building records for a single year . . . . 937,000 houses in 1925.

It is highly important to note that for these ten years the average annual production was 37 billion feet. Keep that figure well in mind, too, so that you can compare it with what happened in 1947 and what is expected to take place in 1948.

In the decade between 1930 and 1940 lumber production dropped to an annual average of approximately 21 billion feet due to the depression of the early thirties and the slow recovery which encountered another setback in 1937.

Then came the stimulus of war and the all-out effort to supply the prodigious demands created by the worldwide conflict. Lumber soon became the Number 1 critical material and every effort was made to produce the largest possible amount. During these years (1940-1946) the average annual production was 33½ billion feet.

What happened immediately after hostilities ceased is of equal interest, when the industry turned its attention to the colossal job of supplying the pent-up demand which had accumulated not only during war years but also during the depression years of the thirties when little construction work was going on.

In 1947 the lumber industry produced between 35 and 36 million feet of lumber and came close to equalling the high average established during the big lumber-using years of the twenties. Furthermore, the estimate for 1948 is 38 million feet!

What better evidence is needed to prove that the supply lines are gradually filling up, even in lumber.

High prices have no doubt been responsible for this exceedingly satisfactory record . . . . prices which made it possible for several thousand small sawmills to go into production that otherwise would not have been able to do so.

It is an amazing fact that there are now nearly twice as many lumber-producing units in the United States as there are lumber yards—a situation that does not prevail in any other industry. Many of these units may not properly be called sawmills as we know the term today, but the fact remains that each and every one of the estimated 50,000 is producing lumber of some kind and that this output is helping to reduce the pressure of excessive demand.

As long as these marginal mills remain in production, we shall be coming closer to the time when supply and demand are balanced.

Current high prices are, of course, the constant worry of those who can't afford to pay them, and that includes many young people who would like to rent an apartment but, not being able to do so, have turned their attention to the building of an individual home . . . at a time when prices are highest.

The fact that these same young people couldn't afford to buy a home at prewar prices (and didn't want to be bothered with one) has not modified the zeal of politicians with an eye on the ballot box. On the other hand the fact should not be overlooked that the 1947 home-building record comes mighty close to beating 1925 when we built more houses than in any other year. All of which indicates that the pipe lines may likewise be filling up so far as houses are concerned.

Some of these days there will be as much too much of everything as there is now too little, and there are now signs that indicate it may be sooner than we think. Production facilities are being doubled, trebled and even quadrupled in industry after industry. We simply can't keep that up indefinitely without reaching a point where supply eventually exceeds demand.

In the meantime prices will remain high as long as there are buyers who can afford to pay them, for it is the buyer, not the seller, who actually makes the price.
BEHIND the SCENES
In a Woodworking Factory

How Men and Machines Speed Production

WINDOWS, doors, cabinets, mantels and exterior trim are all short items in the stock piles of distributors and dealers today. The above items remain short in spite of the greatest production effort in the history of woodworking companies. The shortages are not because of lack of machines and know-how, nor because of a lack of willingness on the part of the manufacturers to produce, but because scarcity of raw material and skilled labor continue to be obstacles.

Mr. Builder, Mr. Dealer, let's step behind the scenes in any modern woodworking factory. Let us start where the raw material is unloaded from the cars, goes to sorting tables, through the cutoff saws and on into the respective stock piles.

Not a scrap of that precious lumber is wasted—the shorts and blocks go to make up the cores for doors, the clear pieces are sorted and stored by size. The production line is so well organized that materials move in a constant flow to the machines that produce the finished products.

The whirr and buzz of a busy mill is deafening—noise, noise, noise, but no confusion, all permeated with a pleasant aroma of fresh cut white pine.

Look at that battery of seven cutoff saws—note the skill of the operator in his selection of cuts that holds waste to a minimum. See the sawdust flying from that pulley machine. It roots out a pocket and two heads at one time for a window frame.

Over to our left is a monstrous machine. Let's step over and get a closer view. It is turning out sills all in one operation. With four heads cutting, it takes a square piece of 1 3/4 inch material and shapes it into the smooth lines of a finished sill. Now the sill runs through a machine that cuts the lug to fit the side jambs of a window frame. Speed and precision is in every operation.

Let us move on to the sash department. Everyone needs sash and here they come. That double-end tenoner has a pay load on every lug. After the parts have been cut and shaped to size, glued and nailed together, they go to the glaziers. See that lad with the automatic trigger-operated tinner. It drives diamond points into the sash to hold glass in place for the glazier. Did you every try putting the putty around a sash? Watch that glazier—one stroke and a side is finished. Rhythm, speed and know-how combine to make the finished sash.

Doors are manufactured with equal speed and precision. Trim and cabinets are coming off of the production lines in greater volume than ever before. Gradually the pipe lines of production are filling. The manufacturers are doing a marvelous job. Without their know-how and machines the builders of this country could never have attained the high mark made last year in the number of completed homes. Their ability to supply stock woodwork has made better homes possible for the American public. Their production quotas are only limited by the supply of raw materials and skilled labor.

All Photos Courtesy of the Carr, Adams & Coller Co.
SAWDUST flies when this pulley machine routs out a pocket and two heads for a window frame, all at the same time.

A SILL for a window is born in one operation. Material is fed into a huge cutting machine by a single operator.

A CLOSE-UP of sill emerging from cutting machine. Sill runs through machine that cuts lug to fit side jamb.

EVERY lug carries payload of stiles through double end tenoner. Stock sash are being produced in big quantities.

A SKILLED operator proves that glazing is an art. Putty is applied to each edge of sash rail with a single stroke.

POWER CLAMP turning out a combination door. Operator on left is ready to insert an instruction sheet for builders.
LINE HOLDER AB3811
One of the most practical, useful and timely new products to be introduced to the trade is the Jiffy Line Holder devised by the An-Dean Manufacturing Co., Inwood, Ind. Made of cast aluminum, this line holder is a time saver. It is easy to use, quickly adjusted, and eliminates driving nails and pointing up. This product is distributed nationally, or may be ordered direct from the manufacturer.

JACKALATOR SCAFFOLDING AB3809
A convenient scaffold for gabled room buildings or for any building where a hanging scaffold cannot be used is found in the Jackalator Scaffolding Model S-20. This scaffold is fastened by means of key plates nailed to the side of the building and requires no ladder for support. It eliminates the need for ladder brackets, planks hung on jacks or brackets, and the continual shifting of all the supporting paraphernalia and planks for each change in position. Platform supports are raised and lowered by means of pins that fit into holes spaced along the uprights. Thus the operator can work from the top right down to the bottom or vice versa without any other set-up. The Jackalator accommodates up to a 20-inch width of planking and has a guard rail for additional safety. With this equipment, the contractor can meet many diversified scaffolding problems. The manufacturer is the Jackalator Corp., P. O. Box 606, Rochester, N. Y.

ELECTRIC HEATER AB3812
An electric wall heater has been added to the appliance line of the Westinghouse Electric Corp. Designed for all installation to save space, this heater is adaptable to any location where the convenience of having extra heat is desired. Equipped with an attractive modern grill of rust-proof satin-finished aluminum, it supplies heat by both radiation and convection. Easily installed, it has a capacity of 1250 watts and operates AC or DC on 115 volts. The Electric Heating Dept., Westinghouse Electric Corp., Emeryville 8, Calif., is the division producing this unit.

WOOD SURFACERS AB3819
A wood dough for surfacing large imperfections and a surfacing putty for filling smaller cavities that bonds tightly to wood, metals, plastics, fabrics and other commonly used materials, is being produced by the Webb Products Co., 216 South G St., San Bernardino, Calif. Both products are marketed under the trade-name Duratite. Because they dry quickly and have little shrinkage, surfaces up to ½-inch deep can be filled in one application. When dry, Duratite dough and putty can be sawed, cut, sanded and polished. They remain tight under drastic weather conditions and are not affected by moisture. Available in seven wood colors, these products can also be stained, lacquered, or painted.

AWNING WINDOW AB3804
A pre-fabricated awning window which permits ventilation without allowing rain or snow to enter a room is made by the Gate City Sash & Door Co., Fort Lauderdale, Fla. A handle inconspicuously located below the sill operates the movable sash. In standard units, all sash are movable; if desired, however, fixed sash may be combined with the movable. Units are shipped complete to the job.
Ro-Way has what home owners want in up-front garage doors!

Even the fussiest home owner would have a tough time finding fault with Ro-Way Overhead Type Doors. For Ro-Ways have what it takes to make home owners happy!

Simple, clean-cut architectural beauty—designed, and engineered to compliment any style of residence. Finest materials—from kiln-dried lumber to selected steels. Proud workmanship in every detail from design to finished door.

Exclusive, extra-value features for smooth, quiet operation and lasting, trouble-free service.

That's why so many architects, builders and owners look upon Ro-Way as the standard of comparison in overhead type doors. Make your own comparison and see for yourself.

ROWE MANUFACTURING COMPANY, 733 Holton Street, Galesburg, Illinois, U.S.A.

Ro-Way distributors in all principal cities. Consult your classified telephone directory, or write for distributor's name. See our catalog in Sweet's.

There's a Ro-Way for every Doorway!
(Continued from page 124)

with hardware and glass installed and including screens. Weather stripping is included on the jamb sections, and is available for the horizontal joints.

PAINT IMPROVER

A product is now available which added to paint makes it easier to apply, improves its consistency, gives it more elasticity in addition to increasing the quantity. Named Paintmor, it is the new product of the Kay-Tite Co., West Orange, N. J. Paint mixed with this product will not crack or fade under exposure to extreme variations of temperature; neither will the paint separate and dry out while standing. Paintmor is available in one and five-gallon cans, and in 55-pound drums.

WELDWOOD PLYWOOD

Two important new Weldwood Plywood products are announced by the United States Plywood Corp., 55 West 44th St., New York, N. Y.

The first is the new Weldwood Moldings illustrated. Designed to aid in the installation of hardwood plywood for wall use, these moldings are made with genuine wood veneer faces which match the paneling itself. They eliminate face-nailing, counter-sinking and puttying. There are four types: inside corner, outside corner, cap and divider strip. Wood species are: oak, mahogany, walnut, birch, maple and Prima Vera.

The second product is a new light-colored, popular-priced tropical wood, Korina. This Weldwood, it is reported, closely resembles Prima Vera but is superior to it in cleanliness, soundness and width of flitches. It can be used for cabinet work of all kinds, and for paneled walls in homes and offices. It comes in assorted thicknesses and sizes. The beauty of the wood adds to its attractiveness.

HOUSE PLAN TEMPLATE

A handy versatile tool for anyone who works with building plans is the Timely Planner. A modular spacer, it saves hours of planning and drafting time. It is made of clear sheet plastic, with accurate cut-outs for drawing door-swings, plumbing and electric fixtures, fireplace, stairs, molding, and roof-pitch. It is available from Timely Products, Box 206-H, Columbus 9, Ohio.

TILEBOARD CEMENT

Prestile Manufacturing Co. has introduced an improved adhesive for use in applying tileboard or other wall coverings. A newly designed label, in attractive colors, carries complete illustrated instructions explaining the easy application for tileboard installation. The material is packed in gallon cans, four to a carton. The manufacturer's address is 2860 Lincoln Ave., Chicago 13, Ill.

CARBIDE TIPPED SAWS

A new standard line of carbide tipped circular saws, to be marketed under the Meyco trademark, is announced by the W. F. Meyers Co. Inc., Bedford, Ind. The line includes both standard and fine tooth saws in six different diameters ranging from 8 to 18 inches. Major advantages claimed for the saws are their resistance to wear and abrasion which reduces the need to sharpen often, and the exceptionally smooth finish obtained through their use. The saws, which were formerly made on special order only, can handle all types of woods, plywood, composition boards and plastics.

SPINNER TYPE ROOF VENTILATOR

The Red Cap Spinner Type Ventilators made by the Warner Ventilator Co., LaGrange, Ind., are now equipped with step type ball bearings. The vertical, machined shaft on which the revolving head or blades are mounted is inserted in a tube, filled with weather-resistant lubricant, and rests on this bearing, assuring easy propulsion of the unit from the slightest breath of air. The spinning blades create a vacuum, thereby sucking or drawing hot air, gases, fumes, or other contamination out of barns, garages, foundries, paint shops, restaurants and attics. The blades are shaped and spaced to emit contaminated air without permitting the entrance of rain or snow.

TIME-CHIME

This attractive Telechron clock is equipped with a two-door Nu-Tone chime. Two notes of the chime indicates front door and one note, the rear door. The self-starting clock operates on 115 volt AC, the door chime on a chime transformer. The clock comes in white only and is trimmed with chrome. It is a product of the Nu-Tone Door Chimes, Merchandise Mart, Chicago 54, Ill.

LIGHTING FEATURE

A streamlined lighting fixture which is equally suitable for exterior as well as interior installation is manufactured by the Steber Manufacturing Co., Broadview, Ill. Designed as a wall bracket, it is made of cast aluminum and finished in Graytone, Coppertone, black or ivory. Each fixture is furnished complete with a cylindrical frosted glass shade, socket and mounting strap. Suggested indoor uses are for bathrooms and halls; exterior uses are on porches and terraces.

WINDOW FOR GLASS BLOCK WALLS

An aluminum window tailored to bleed into a glass block wall or panel is being marketed by the Valley Metal Products Co., Plainwell, Mich. The window can be had with or without a ventilator; and whe ventillator type is used, ventilation can be regulated. The window is shipped open to allow the purchaser to select the type of glass to be used for glazing.

PACKAGED SHINGLES

To solve the shingle repair problem a packet is now available which contains fifty No. 1 grade Western Red Cedar Shingles in assorted widths, one hundred shingle nails, and complete instructions for use. The shingles are made with a new patented tapered-shape which makes it possible to replace worn or broken shingles in a jiffy. No tool other than a hatchet or hammer is needed. This handy maintenance kit is named "Patch Pack." It is the new product of the Patch Pack Co., a division of the Portland Shingle Co., Portland, Ore.

MATCHED METAL WALL TRIM

The Youngstown Manufacturers Inc., 66-86 South Prospect St., Youngstown, Ohio, offer a matched set of metal wall trim designs that can be applied after the wall covering has been cut and cemented to the wall. The set includes a cap strip, a...
BRICK & FOUNDATION VENTILATORS

for ventilating unexcavated foundations, flat roofs, fruit cellars, etc.

Built to high standards— at amazingly low prices! Made of galvanized steel with rain deflecting louvered faces—screened for insects.

FOUNDATION VENTILATOR for MASONRY WALLS—Style "M"

Style "M" Ventilators are installed in cement block, brick or concrete foundations. The size of a cement block—projecting margins have punched holes for mortar lock—resulting in easy installation. Louvered face provides a maximum of free area and deflects rain. Free area 89 sq. in.

BRICK VENTILATOR

The size of a brick—easily laid in any brick wall. Bottom edges flanged to give a positive mortar lock. Built of galvanized steel of rugged construction. Ideal for ventilating flat roofs, fruit cellars, etc.

FOUNDATION VENTILATOR for WALL INSTALLATION (above foundation)—Style "W"

Style "W" Ventilators (flush type) are installed in walls, above the foundation. Usually nailed to end of joists. Holes in corners for nailing—similar in size and construction to Style "M" Ventilators. Screened on back to keep out insects. Free area 89 sq. in.

See your LEIGH Building Products Distributor today! Or write for Catalog 47-L describing the complete line of LEIGH Building Products.

Stylized and Built by

AIR CONTROL PRODUCTS, Inc.

COOPERSVILLE, MICHIGAN

Manufacturers of AIR CONTROL REGISTERS * GRILLES * DIFFUSERS * ACCESSORIES
Inside Storm Sash  AB3810

A new inside metal storm window that combines with steel casement and screen to make a complete window unit has been introduced by Detroit Steel Products Co., 3101 Griffin St., Detroit 11, Mich. Made of formed steel, bnderized, with a factory-baked-on coat of paint, the storm window is hardly noticeable from inside or outside the house, and does not interfere with draperies, vellum blinds or curtains. Easily and quickly installed, it fits snugly against the steel casement. If desired, the storm window can be had with a tilt-in vent at bottom to provide draftless ventilation. Besides reducing heat loss, the installation of this storm window prevents fogged or frosted windows.

Suspended Heater  AB3817

A streamlined body in which are housed all working parts, and an exclusive type of heating element which delivers a balanced heat pattern are the outstanding features of the Pacific Suspended Heater. Product of the Naco Manufacturing Co., Huntington Park, Calif., the unit is designed primarily for commercial structures. It requires no boiler, central heating system or ducts, and saves floor space.

Gas-Fired Furnace  AB3802

The Palmaire is a gas-fired, forced air furnace, compactly designed for the average home where ducts are used for warm air distribution. It can be installed in a closet, basement or utility room. Outstanding features of this furnace include an all-steel, press-formed streamline cabinet with silent corrugated steel lining, heavy gauge die-formed steel elements, baked enamel steel burners, and automatic controls. All controls are located in the front and are easily accessible for inspection by finger tip front panel removal. It is made by the Palmer Manufacturing Corp., Phoenix, Ariz.

Masonry Coating  AB3824

A new rubber base masonry coating which is absolutely resistant to the destructive effects of the alkali present in all concrete has been developed by the Truscon Laboratories, Caniff and Grand Trunk, Detroit 11, Mich. This important feature is accomplished through the formulation of the coating with chlorinated rubber, which alkali does not touch. Named Para-StoneTex, the coating is equally resistant to water. In rigid tests, continuous contact of water with the Para-StoneTex film showed substantially no physical or chemical change. This coating works easily, dries quickly, and stays clean. It is available in white and colors.

Shinglers Bracket  AB3818

A safe toe hold for the roofer has been devised by Reimann and Geiger, 69 N. Division St., Buffalo, N. Y. The product is a bracket called Shingler which takes a 2x4 on edge making a safe toe hold for the roofer without his having to drive nails through the new roofing. It is constructed of two pieces: a thin wide strap with three notches which allows the Shingler to be removed without raising the shingle, and a heavy bent bar which holds the 2x4 and forms a blunt end that can be struck or dropped on concrete without damage. The parts are fastened together with rivets heavy enough to withstand the shock of hammering or dropping.

Awning Type Window  AB3820

Awning-type windows which provide no-draft ventilation for homes, apartment buildings, and other structures, are available from the Super-Vent Co., 303 W. Monroe St., Chicago 6, Ill. These windows are produced in a range of sizes to include from one to five vents, depending on window height. A small handle at the window base operates the vents which open outward to an approximate 80-degree angle, and lock securely at any desired opening. A unique patented mechanism lowers the upper vent when opened to facilitate cleaning of its exterior glass and permits cleaning of the outside windows from the inside of the home or building.

Suspended Heater  AB3817

A streamlined body in which are housed all working parts, and an exclusive type of heating element which delivers a balanced heat pattern are the outstanding features of the Pacific Suspended Heater. Product of the Naco Manufacturing Co., Huntington Park, Calif., the unit is designed primarily for commercial structures. It requires no boiler, central heating system or ducts, and saves floor space.

American Builder, March 1948.
We've come a long way since then!

Whether or not Richmond's new Oil Winter Air Conditioner will "secure serenity to the pure of heart, or induce good digestion..." (see text above), we really couldn't say. But, be sure of this: the Richmond Oil Winter Air Conditioner is specifically designed to meet every requirement in small, low-cost home installations.

Only Richmond Offers All These Features

1. Vaporizing type with unusually low pilot flame—as little heat as a gas pilot. No overheating in mild weather.
2. Automatic control of oil-air ratio at all stages of fire—keeps pot purged!
3. Delivered completely assembled and wired—estimated saving $20 to $35 on installation costs.
4. Horizontal design permits quick, easy duct installation on low headroom jobs.
5. Beautiful finish in durable, heavy white enamel.
6. Capacity: 75,000 Btu. at bonnet.
Philadelphia Sets Dates For Home Show in April

The Home Builders Association of Philadelphia and Suburbs will sponsor a home show in the Commercial Museum in that city April 5-10. There is 113,000 square feet of exhibit space. As a major undertaking for the show, an industry-engineered house will be constructed.

The Philadelphia group is getting some good publicity as a result of the effort of William E. Johnson, its executive vice president. Mr. Johnson put up the necessary cash for a plot of ground on which homes will be constructed.

The most casual inspection of any issue of the American Builder or any other trade journal of the home building industry completely repudiates the propaganda line of public housers, crackpots and Socialists who endlessly proclaim that we are an antiquated industry. Because competition in home-building is so keen, the builder who does not utilize every available new technique and material that is practical does not long survive.

In our entire economy, it is doubtful if there is any other classification of small businessmen with greater courage, imagination and ingenuity than the men who survive in the operative home building field.

Those who have earned sufficient credit facilities to purchase and develop raw acreage; to conceive the best in design and land planning; to deal with and secure a day’s work from labor; to purchase and install the most practical and most needed building materials; to put together all of these services and things in such fashion as to secure public acceptance and prompt sale—these men are entrepreneurs deserving of greater commendation than has been accorded them by a public and press accustomed to the wild charges of public housers.

The home builder is called unprogressive because he cannot turn out houses on aassembly line by such comparatively simple methods as are employed in the manufacturing field. Compare the production of a bathtub or a refrigerator with that of a completed house on a desirable piece of land, properly financed and fully acceptable to discriminating purchasers.

Since prefabrication and “industrialized housing” are proclaimed to be the cure-all and solution of our housing problems, statements made recently by Fritz Burns of Los Angeles before the Joint Congressional Committee on Housing are of particular interest. One of the largest producers of houses in this country and probably one of the largest investors in prefabricated housing techniques, Burns sums up his experience as follows:

1. Prefabrication speeds construction but invariably adds to cost.

2. Highly mechanized prefabrication plants that are something more than a group of saws and hammers assembled under one roof, are very expensive to build and to maintain and, therefore, add to the cost of housing.

3. Materials which are prerequisite to prefabrication—high grades of plywood, clear and dry dimensional lumber for precision cutting, and the various metal combinations that have been used in prefabrication—are all expensive materials.

“Therefore—prefabrication, in summary, is quick but costly.

“On the other hand, it has been observed that conventional builders throughout the country are gradually incorporating into their methods of operation many of the tried and tested economical operations of the prefabricator. Hand-saws are largely a thing of the past. Mechanized equipment is more and more prevalent. Preassemblies of certain portions of the house, such as wall cabinets and storage walls, stairways, glazed window sub-assemblies, doors and trim sub-assemblies and garage doors are in common usage. Pre-cutting of dimensional lumber on the site by power saws and the preframing of wall sections on jig tables at the site have become common practices with many builders.

“Therefore, in summary again, it is encouraging to note that all builders, both large and small, without ‘going overboard’ in the direction of prefabrication, are assimilating the best and most important phases of prefabrication methods.”

Such factual statements should be brought to the attention of the uninformed individuals who complain that the industry refuses to adopt “revolutionary” methods which will ensure houses rolling off the assembly line in neat packages. Home builders of America today are adopting and adapting every new method and material just as quickly as it is proved to be practical, economical and acceptable to the American public.
Somebody Told Him That
CLAY PIPE NEVER WEARS OUT!

And they're right! Vitrified Clay Pipe is made from nature's own tough material left from millions of years of chemical reduction. Because clay cannot be reduced further, it is corrosion-resistant, acid-proof, chemical-proof, and moisture-proof. Because it has been vitrified, Clay Pipe is abrasion-resistant and has great mechanical strength. Vitrified Clay Pipe has a smooth surface, providing an even flow with a minimum of friction and wear. These are the reasons Vitrified Clay Pipe never wears out!

Everywhere they're using Clay Pipe because they want permanent jobs — because they know that when Clay Pipe is down, it's down to stay — because they know Clay Pipe has held the line for lower costs and fair profit.

If you need specific information on a Clay Pipe problem, write the details to the office nearest you.

NATIONAL CLAY PIPE MANUFACTURERS, INC.
522 First National Bank Building, Atlanta 3, Ga.
1105 Huntington Bank Bldg., Columbus 15, Ohio

111 West Washington Street, Chicago 2, Illinois
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Include FIBERGLAS®

ROLL BLANKETS

BATT BLANKETS  UTILITY BATTs  POURING WOOL

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BUILDING INSULATION

*FIBERGLAS is the trade-mark (Reg. U.S. Pat. Off.) for a variety of products made of or with glass fibers by Owens-Corning Fiberglas Corporation.
**1. For top performance.** Besides being a highly efficient barrier to the flow of heat, FIBERGLAS Building Insulation provides everything needed for permanent satisfaction. Light in weight and highly resilient, this insulation stays put—doesn't disintegrate or pack down. The ageless glass fibers of which it is made won't rot, won't burn, provide no food for vermin. In any of its forms—roll blankets, batt blankets, utility batts and pouring wool—FIBERGLAS Building Insulation is easy to install.

**2. For top buyer acceptance.** Consumers, architects, builders and lending agencies all know FIBERGLAS Building Insulation and readily accept it as evidence of quality construction. This acceptance will contribute to the salability of your homes and other buildings.

**3. For top service.** The various forms of FIBERGLAS Building Insulation are available everywhere from top-flight lumber and building supply dealers who are served by the national distributors listed below. For further information, contact your dealer or one of the four distributors. Order FIBERGLAS in the new compression packages that simplify handling and save space on the job. Owens-Corning Fiberglas Corporation, Dept. 2018, Toledo 1, Ohio.

In Canada: Fiberglas Canada Ltd., Toronto, Ontario
HOW-TO-DO-IT 409—SUSPENDED CEILING CONSTRUCTION—Using the Nailock Method of mechanical fastening for acoustical ceiling materials is described in a new catalog published by the Nailock Steel Division, The Sanymetal Products Co., Inc., 1705 Urbana Road, Cleveland 12, Ohio. Four basic methods of use of Nailock Nailing Channels, specifications for the architectural writer, and loads tests are features of this 12-page, three-color catalog.

410—MODINE HEATING COILS are fully described and illustrated in Catalog No. 345. Prepared primarily for architects, designing engineers and contractors, the book completely covers in 48 pages performance, selection and installation data on the new Modine coil line. To obtain a copy, write the Modine Manufacturing Co., Racine, Wis., on a letterhead.

411—100 FIREPLACE IDEAS is the title of a 32-page booklet offered free of charge to architects, builders and contractors by the Price Fireplace Heater & Tank Corp., 2 Austin St., Buffalo, N. Y. Largely pictorial, the book covers fireplace design from Colonial America to the present day. The designs shown are in a variety of detail and material construction and all utilize a steel warm air circulating form. Requests for this booklet should be sent early since this is a limited edition.

412—NEW HEATING GUIDES—Specific technical information relative to best applications for various types of heating systems, most suitable arrangements of ducting, furnace locations, etc., is provided in a series of heating guides prepared by the Janitrol Division, Surface Combustion Corp., Toledo 1, Ohio. There will be ten guides in all, three available now.

413—HOME INSULATION BOOKLET—Issued by the Kimberly-Clark Corp., Neenah, Wis., deals with radiant heat loss, air stratification and drafts, variable exposures, and how correct design avoids trouble with heat lag. Over 40 illustrations, charts, and tables are shown. Other features include architectural specifications and a tabulation by percentages of heat loss stoppage through blanket insulation.

414—KITCHEN PLANNING is emphasized in a new profusely illustrated catalog being distributed by American Kitchens, American Central Division, Avco Manufacturing Corp., Connersville, Ind. In 16 pages, this catalog offers specific suggestions in kitchen design and remodeling. In addition, it advances plans for the adaptation of the factory-built American Kitchen package to needs previously filled only by the custom-made kitchen.

Catalogs and HOW-TO-DO-IT INFORMATION

409—SUSPENDED CEILING CONSTRUCTION—Using the Nailock Method of mechanical fastening for acoustical ceiling materials is described in a new catalog published by the Nailock Steel Division, The Sanymetal Products Co., Inc., 1705 Urbana Road, Cleveland 12, Ohio. Four basic methods of use of Nailock Nailing Channels, specifications for the architectural writer, and loads tests are features of this 12-page, three-color catalog.

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SERVICE COUPON—CLIP and MAIL to CHICAGO

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

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Yes, Inselbric is still the only brick siding consumers ask for by name. First in the field, it has steadily and surely maintained its leadership against a constantly growing stream of competitive items, by sheer built-in quality, beauty and performance. Because we're proud of our product, the name INSELBRIC is stamped on the back of each panel—trade mark protection to insure that consumers get the product they ask for—to insure that YOU click with Inselbric in '48.
New Editorial Policy Implemented
By Establishment of This Department

THE editorial on page 67 of this issue announces a new policy regarding the handling of editorial material of interest to distributors of building materials. Material formerly published only in the Dealer Distribution Section now is integrated with the general editorial content of the magazine as news of interest and importance to everyone connected with light construction.

To implement that new policy, this "Dealer Review" section is being inaugurated as a regular monthly feature. Here we will report activities of the National Retail Lumber Dealers Association and the regional and state dealer associations, as well as other news of prime interest to distributors. In reply to a letter which outlined the new policy and announced the new Dealer Review, H. R. Northup, secretary-manager of the National Retail Lumber Dealers Association, wrote:

"Congratulations! With distribution and the availability of material playing such an important part in home construction today, your magazine's decision to cover the whole field of building without departmentalization should result in a greater, stronger editorial appeal.

"This sound approach to the whole building problem should certainly gain you a larger, more earnest readership among dealers.

"The importance of distribution to both producer and contractor has been spectacularly high-lighted since the end of the war. It has definitely been proved, I think, that lumber and building material yard services do save the contractor and builder both time and money. Immediate availability of materials, and delivery upon a synchronized time schedule have assumed a new dollar value.

"Recent moves toward greater coordination and cooperation within the entire building field have certainly been taken to make the task of the contractor and builder financially less hazardous. The American Builder's move to treat the whole field of construction as an editorial unit is truly in line with current industry development and thinking."

Announcement and reports from secretaries and managers of regional and state dealer associations about the activities of their groups will be welcomed by the editors for inclusion in this new section.

H. R. NORTHUP, secretary-manager National Retail Lumber Dealers Association, congratulates American Builder on new editorial policy integrating former Dealer Distribution Section with the general magazine contents.

Dealers Conducting State and Regional Association Meetings

MEMBERS of state and regional retail building material dealer associations, with few exceptions, conduct their annual meetings during the first four months of each year. Pertinent facts regarding those conventions which were conducted prior to February 12 are reported here.

NORTHWESTERN
The fifty-eighth annual convention of the Northwestern Lumbermen's Association was conducted in the Minneapolis Auditorium, Minneapolis, Minn., January 12, 13 and 14. Total registration was 3,586, including 1,626 dealers, 1,097 exhibitors and 863 guests. Ten states were represented on the registration list. There were 231 exhibits at the convention, which occupied both the main and lower floors of the auditorium.

Ward D. Briggs, of the Crane-Johnson Co., Inc., Fargo, N. D., was re-elected president. Other officials named are: H. A. Albinson, Worthington, Minn., vice president for Minnesota; Gerald A...

(Continued to page 138)

Tour of Door Factory Is Part of Training Course

A FEATURE of the 30-day intensive University of Washington course for future and present retail lumbermen is field trips to nearby manufacturing plants which produce much of the nation's lumber and building materials. Typical of that feature was the recent trip to the Wheeler-Osgood Co., door manufacturing plant at Tacoma, Wash. In the photo above some of the 35 visitors to the factory are shown how clamps help to assemble plywood and lumber parts into a three-panel fir house door. From the clamp, the door is carried to automatic trim saws for factory-fitting to exact dimensions.
That's saying plenty! For longer hours of continuous operation on any kind of cuts . . . Porter-Cable SPEEDmatic actually produces 10 times more sawing than any man you've got. Man! That's meeting high labor and building costs in no uncertain way!

Easier, Faster One-Hand Sawing . . .

Balanced—Broad shoe, correctly placed, permits a steadier, easier cut in any position, at any angle. No veering, no tipping, no twisting.

Faster—Sturdy helical gear delivers 11% more power to the blade which travels at 7000 rpm. Practically feeds itself.

Versatile—Operates on concrete forms, joists, bridging, rafters, siding, trim, cabinets, etc. Requires no premarking for a square cut.

At hardware stores and builders’ supply houses. Or write us for literature.

PORTER-CABLE MACHINE CO.
1721-3 N. Salina St., Syracuse 8, N. Y.
You'll do the job 10 times faster than hand sawing—with an AMERICAN Power Saw! It's a time-saver on any cut... easy one-hand operation ... ideal for construction, maintenance and repair work. Use it to cut wood, metal, stone, tile, composition.


Name
Street
City
State

WARD D. BRIGGS
Iowa; L. G. Morley, Morris, Minn.; John Wallace, Minneapolis, Minn.; Charles E. Goeckling, Shenandoah, Iowa; D. B. Taylor, Marshall, Minn.; Clem Knecht, Rapid City, S. D.; Max Gray, Hibbing, Minn.; Brooks Baughman, Cedar Falls, Iowa; L. A. Geise, Winona, Minn.; G. B. Patterson, Rugby, N. D.

The 1949 convention will be conducted in Minneapolis January 10, 11 and 12 at the Auditorium.

KENTUCKY
Sam Crump, of the Square Deal Lumber Co., Park City, was elected president of the Kentucky Retail Lumber Dealers Association at the annual meeting conducted in the Brown Hotel, Louisville, January 13, 14 and 15. Blaine Fulton, Newport, Ky., is vice president and Don A. Campbell continues to serve as secretary.

New directors for 1948 and 1949, named at the convention are: John Casner, Madisonville; Ben P. Embank, Lexington; Charles McGinnis, Lawrenceburg; Hobart Reams, Middlesboro, and Lambert Suppinger, Middlesboro.

OHIO
Members of the Ohio Association of Retail Lumber Dealers gathered in the Public Auditorium in Cleveland January 20, 21 and 22 for their sixty-seventh
Daylight + design + privacy = profits for builders

It doesn't take an interior decorator's trained eye to see how the Insulux Glass Block panel adds to the beauty of this bathroom. Nor to see how Insulux brings lots of bright, pleasant daylight without sacrificing privacy.

But there's something else in the picture, too. A story of profits for builders.

You'll discover that Insulux Glass Block has more than one application in homes. Its versatility earns it a place in living rooms, kitchens, beside stairways... anywhere extra daylight is desirable. You'd be surprised how much Insulux does for a building at so small a cost.

Insulux has many qualities which should interest you as a builder. It passes light with privacy, it insulates, and it requires a bare minimum of maintenance. Insulux never requires paint, never rots, rusts or corrodes. It is permanent and durable.

Check into the profit possibilities of Insulux Glass Block. Send now for booklet, "Ideas for Brighter Homes." Write Dept. E-51, American Structural Products Company, P.O. Box 1035, Toledo 1, Ohio.
An Attitude... a Creed
behind a company slogan

NO TASK IS TOO SMALL
NOT TO DO WELL...
NONE SO LARGE AS NOT
TO NEED EXACTING CARE.
IN ALL,
ENGINEERING EXCELLENCE
IS THE CECO CREED
Thirty-six years ago an attitude, an ideal, started the Ceco Steel Products Corporation. Today, that attitude, that ideal, is summed up in a Creed, which best describes the way Ceco and all its people have worked to build the company. No lofty phrases make up this Creed, just simple, direct language. Here it is:

No task is too small not to do well...
None so large as not to need exacting care.
In all, Engineering Excellence is the Ceco Creed.

Today the Ceco Creed puts into words what thirty-six years of practice put into action, to dramatize the company’s oft repeated slogan... “In Construction Products CECO ENGINEERING Makes the Big Difference.” Actually, there are three types of engineering at Ceco:

**CREATIVE ENGINEERING.** Here there is the ceaseless and endless search for new and better ways to do things, for new and better products to simplify building...to provide short-cuts in construction methods so as to reduce building costs.

**PRODUCTION ENGINEERING.** This type of engineering means the organization of work in manufacturing so that each process flows properly, merging individual jobs into the whole for better manufacturing practices, with savings in time and, consequently, in costs... plus the making of better products.

**FIELD ENGINEERING.** This is where Ceco Engineers test and prove the products they make... where product advantages are proved by practice... where in-the-field, on-the-job data is developed so that the best way to use a product is discovered.

In all the aspects of Ceco work, meticulous attention to little things is the byword, for we believe no product is better than the perfection of its smallest detail. And here it is that Ceco applies all its engineering skill in seeking excellence. That’s why we say that all jobs at Ceco are important... every task must be well done because each has a relation to the whole. That’s why we say the Ceco Creed makes true the Company Slogan... “In Construction Products CECO ENGINEERING Makes the Big Difference.”
Over 10,000 dealers can't be wrong—and they're saying that Chromtrim's "Trim-it-Yourself" floor merchandiser is one of the biggest moneymakers they've ever had in their stores!

Compact, elliptically-shaped—covering only 24" x 16" of floor space—it's four metal mouldings—ready wrapped for quicker purchasing. PLUS:

1. The Chromtrim "Silent Salesman" 8 tube stock dispensing unit.
2. Eight metal snap-on holders with retail price tags.
3. Metal dispensing tray and supply of nails.
4. Supply of 100 consumer instruction folders.
5. Free copy of Chromtrim's "Trim Ideas" and remodeling projects.
6. Three-color counter display card, 11" x 14".
7. Full-color life size window display of the Chromtrim girl.

Homers from coast-to-coast are getting the Chromtrim habit. Through Chromtrim's powerful advertising and promotion campaign, they've found that modernizing and remodeling is easy and economical too when they do it themselves the Chromtrim way.

Dealers prove there's quicker turnover and easier profit in selling Chromtrim metal mouldings. 

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American Builder, March 1948,

(Continued from page 138)

annual convention. Don B. Beaumont, of the Cleveland Lumber and Door Company, Cleveland, was elected president to succeed Floyd Pendleton of the F. S. Pendleton Lumber Co., McComb, Ohio.

Other officers elected are J. Irvin Jones of Columbus, first vice president; John M. Horn, Hamilton, second vice president; Allen H. Brain, Springfield, treasurer. Findley H. Torrence, Xenia, continues to serve as secretary and Charles E. Benson, Columbus, is field secretary.

Total attendance was more than 3,000, the largest in the association's history. Discussion of current lumber costs and their causes was a feature of the meeting. There were 160 exhibits at the exposition of which Ted E. Well, vice president of the Lumbermen's Door and Trim Co., Cleveland, was chairman.

NORTHEASTERN

More than 3,500 attended the fifty-fourth annual convention of the Northeastern Retail Lumbermen's Association at Hotel Pennsylvania in New York January 26, 27 and 28. Exhibits of building materials and equipment totaled 83.

New president of the Northeastern is Chester T. Hubbell, president of the

DON B. BEAUMONT

C. T. Hubbell Lumber Corp., Albany, N. Y. He succeeds Frank W. Whitty, of Boston. Elected as vice presidents are Willard F. Terrell, Meriden, Conn.;

(Continued to page 146)

CHESTER T. HUBBELL
There's Action in Asphalt Shingles!

Coast to coast, by an 8 out of 10 margin, America's first choice roofing material is Asphalt! It is first choice for a combination of many reasons.

Asphalt is the roof that has been manufactured to meet weather's specifications. It is the roof that gives the home the protection of a highly fire-resistant surface. It is the roof that has proved its ability to take extra years of hard wear. It is the roof that gives the whole house extra appeal through its color, texture and beauty of line. It is the roof that would be a luxury if it were not for its economy.

It pays to feature the favorite. In the case of Asphalt Shingles it pays two ways. First, Asphalt’s acceptance is your assurance of a satisfied customer. Second, Asphalt’s great popularity has made possible its current low cost position. Roof with Asphalt!

FREE! . . . Get this booklet, "Choose Your Roof for rain AND SHINE". 24 pages in full color, filled with tips on choosing and combining colors for exterior styling. From members or direct.

Sponsored by 28 leading manufacturers of asphalt shingles • roll roofings • sidings • and built-up roofings

CONSTRUCTION'S BIGGEST DOLLAR'S WORTH

ASPHALT SHINGLES

ASPHALT ROOFING INDUSTRY BUREAU
Room 1703 • 2 W. 45th St. • New York 19, N. Y.
Mr. Martin's tenants never stop thanking SERVEL

1. Mr. Martin heads a company that owns apartments. During construction of a new one last year, he decided he'd better put in his order for refrigerators. He hadn't given much thought to which make he would choose. He figured that any of the five or six leading makes would be a good buy.

2. All good refrigerators—Mr. Martin and his associates thought—offer pretty much the same modern features. BUT one day they were reminded that there is one refrigerator that offers something more than all others. Yes, only the Servel Gas Refrigerator stays silent ... lasts longer!

3. Mr. Martin checked Servel's catalog and mailed in order for refrigerator pieces from the gas company. Yes, now he was ready to talk to the gas refrigerator salesman who had called on him before. The salesman came, gave him the complete Servel story ... and now Mr. Martin's tenants enjoy the advantages of Gas Refrigeration...
him for their **NEW, SILENT**

**GAS REFRIGERATORS**

He also thanks himself, for Servel gives dependable service year after year . . . **at low cost**

---

3. Mr. Martin had heard the story of Servel's difference before . . . but now it really struck home: Servel stays silent, lasts longer, because it freezes with no moving parts . . . No machinery in the operating system to wear or break down . . . A tiny, silent gas flame does all the work.

4. Why is Servel the different refrigerator? Because the small gas flame circulates a simple refrigerating liquid. This refrigerant supplies the constant cold that preserves food and makes plenty of ice cubes. Not a single moving part is used in the entire freezing operation. That means there's no machinery (no motor, no pump, no compressor, etc.) to ever need repair or replacement.
The demand for broad siding. With Duo-Laps, you get the beauty of wide, expensive, Red Cedar siding with deeper horizontal shadows, at a fraction of usual cost. Build for beauty and instant sales with Duo-Laps double-course shingles, laid with full 12" or 14" exposure over solid or spaced sheathing.

FASTER, EASIER TO APPLY

Duo-Laps are dipped and stained by hand, butted, squared and tapered and require no painting. The genuine Red Cedar of Duo-Laps is unexcelled as insulation — keeps homes warm in winter, cool in summer. Selection of eight colors. Get two shingles in one (Stained No. 1 Red Cedar top course and rugged, genuine Red Cedar undercourse) with cost-cutting Duo-Laps.

WRITE FOR DETAILS AND THE NAME OF THE DUO-LAP DEALER NEAREST YOU

THE American STAINED SHINGLE CO.
GENERAL OFFICES COR. SPRUCE ST. AND DENNISON AVE.
COLUMBUS 8, OHIO
BENNETT "DEEP-SEAT" ASH DUMP
100% Heavier for Permanent, trouble-free service — 9 x 4 1/2 inches. Cat. No. C-203.

ALL-ALUMINUM "SCREW-TITE" CLEANOUT DOOR

BENNETT GRATES & LOG DOGS
- Cat. No. A-1451 Log Dogs for Heavy Logs. Protect valuable andirons. Ideal for camp or outdoor fireplace.

BENNETT Expanslip THROAT DAMPERS

BENNETT CAST-IRON DAMPER
A quality damper at competitive prices. Superior casting facilities in our own foundry enable us to produce this steep slope 50° Damper, with interchangeable Rotary or Ratchet Control feature. Cat. No. C-103.

BENNETT FIREPLACE UNITS
The very best for the modern weather-tight house. Draws fresh air from out of doors, heats and circulates it throughout the house. Cat. No. C-121.

THE BENNETT LINE OF SALES PROVEN FIREPLACE SUPPLIES
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.

BENNETT WARM-AIRE FIREPLACE UNITS

BENNETT FRESH-AIRE FIREPLACE UNITS
The Bennett Ireland, Inc.
Chartered in 1906
NORWICH, NEW YORK

The only Nationally Advertised curtain screen. Every fireplace owner is a prospect for Flexscreen. Its own best salesman, a display on your floor will increase your volume on this "quality" product.

Write now to 348 Market St. for Catalog and Full Information on the COMPLETE POST-WAR BENNETT LINE
Recognize a Trend?

"Believe me, this Lumite screening is amazing. I'll never have to think of screens again."

More and More People Want Lumite

Day-in and day-out use—all over the country—is proving that LUMITE has qualities never before found in window screening ... qualities that have started a trend towards this amazingly different plastic screening.

Here is the screen material that absolutely can't rust, rot, stain, or corrode ... that never needs painting, lasts a lifetime. Made from SARAN. It costs less to own than any other type screening made.

You'll find all the facts about this amazing material in SWEET'S FILE, or, if you want samples and more complete information, write LUMITE DIVISION, Chicopee Mfg. Corp., 47 Worth Street, New York 13, N. Y.

Sold through Hardware and Lumber Dealers and Screen Manufacturers.

SPECIFY BY NAME LUMITE

(Continued from page 146)

Lundy, Tulsa, Okla.; L. I. Parks, Lawton, Okla.; J. Reniker, Miami, Okla.; Fred Stephenson, Chickasha, Okla.; Barney Stewart, Jr., Oklahoma City; W. P. Kennedy, Jr., Oklahoma City; Louis Stuart, Sapulpa, Okla. Walter A. Lambert, Leavenworth, Kans., was elected to fill an unexpired three-year term. Cliff G. Scruggs and Allan T. Flint are Southwestern representatives on the board of directors of the National Retail Lumber Dealers Association.

TENNESSEE

W. Jay Willingham, Chattanooga, was re-elected president of the Tennessee Lumber, Millwork and Supply Dealers Association at the twenty-third annual meeting conducted at the Hermitage Hotel, Nashville January 28, 29 and 30.

New division vice presidents are T. O. Lashlee, Humboldt, west; Fleming Smith, Nashville, middle, and Henderson Horsley, Kingsport, east.

The Tennessee director to the National Retail Lumber Dealers Association, Abner E. Taylor, Jackson; the treasurer, Ralph Cockrum, Knoxville, and the secretary, R. O. Brownlee, Knoxville, were all re-elected.

Revision of the counties in the state to provide a sound pattern for the conduct of district meetings by Secretary Brownlee resulted in election of eight new directors. Elected for three-year terms from the new districts are Clay Rose, Elizabethon; Charles Rhyme, Newport; Sam Hathcock, Lebanon, and W. A. Nailing, Jr., Union City. New directors for two-year terms are J. D. Womack, McMinnville, and H. B. Brink, Lawrenceburg. Harry Molyneaux, Rockwood, will serve a one-year board term for District IV.

Registration at this year's annual was low because the entire state was blanketed with eight to twelve inches of snow and ice just before the sessions were scheduled. Every available exhibit space was occupied and lack of additional facilities forced the convention management to turn away manufacturers who (Continued on page 150)
Choose Columbia Venetian Blinds—and at once you're on favorable ground with your prospects. They are conditioned to ready acceptance of Columbia Venetian Blinds because Columbia has been advertising them nationally for 15 years. A bigger schedule than ever for '48 features Columbia’s smart styling...emphasizes that “CCC”—Columbia-Controlled-Construction—means a superior blind and perfect performance.

We'll be glad to give you the name of the nearest Columbia dealer. Let him show you the new Columbia styles and colors, give advice and counsel on your problem.

Like fine wine with good food...

Columbia's new Venetian Blinds are the perfect accompaniment. Do you think "perfect" is too bold a word? Then wait until you see how the new color ranging from striking, to soft, to subtle, will fit almost any decorative scheme in your home. Wait until you handle one of the new Columbia Venetian Blinds, a marvel of honey-smooth mechanism. Now, every working part is completely enclosed by the handsome, die-stamped headcase. There are plastic-coated for easier cleaning and longer wear. Tape removed clips allow you to change tapes quickly and easily. Columbia's "Stop-Stop" won't let blinds away in the house, completely automatic stop holds them in place with never a chance of slipping!

See the new Columbia Venetian Blind in steel or aluminum slate at your local Columbia Authorized Dealer.

*Four color ads like this appearing in:
House Beautiful
House and Garden
American Home
Better Homes and Gardens

Columbia
VENETIAN BLINDS
AND WINDOW SHADES
THE COLUMBIA MILLS, INC. • 225 FIFTH AVENUE, NEW YORK 10, N.Y.
**KEYSTONE POULTRY NETTING**

Just unroll a few feet of this netting and let your customers examine its beautiful even weave, its freedom from buckling, its easy handling. They can SEE you're showing them a PREMIUM QUALITY netting. And it sells for a price no higher than ordinary netting! In your store, these convincing selling points clinch sales quickly and easily.

Now is the time to display and SELL Keystone poultry netting.

**KEYSTONE STEEL & WIRE CO.**

**PEORIA 7, ILLINOIS**

By the Makers of

**RED BRAND Fence**

**RED TOP STEEL POSTS**

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**MICHIGAN**

Michigan Retail Lumber Dealer Association members gathered in the Pantlind Hotel and the Civic Auditorium in Grand Rapids February 3, 4 and 5 for their fiftieth annual convention. Registration totaled 1,485 and 103 manufacturers and distributors occupied exhibit space in the Civic Auditorium exhibit hall.

Edwin F. Westover, Westover-Kammen Co., of Bay City, was elected president. Other officers are Axel Becker, Monroe, vice president; Lester Essenburg, Holland, vice president; Norman B. Cove, Lansing, treasurer; Hunter M. Gaines, Lansing, secretary, and Donald J. Moe, East Lansing, assistant secretary.

Directors are Wesley Habermehl, Alpena; F. Gordon Feather, Petoskey; Charles Bracken, Traverse City; A. E. Swanson, New Era; T. P. Peterson, Grayling; Gordon Granger, Big Rapids; Edwin F. Westover, Bay City; John Sheridan, Caro; L. M. Spears, Grand Rapids; Lester Essenburg, Holland; William T. Gates, Lansing; John Hughes, Flint; Walter Peacock, Port Huron; Russell Nowels, Rochester; Axel Becker, Monroe; Joseph Deuel, Marshall; Hilton Nowlen, Benton Harbor; Clyde A. Fulton, Charlotte, is the dealer-director to the National Retail Lumber Dealers Association.

**WESTERN PENNSYLVANIA**

Six hundred and twenty-three persons registered at the forty-first annual convention of the Lumber Dealers Association of Western Pennsylvania conducted February 4 and 5 at the Hotel William Penn, Pittsburgh. Forty-nine exhibitors displayed their products and services to visiting delegates.

Marilyn R. Fetterolf, Johnstown, Pa., president of the Thomas-Kinzey Lumber Co., was elected president succeeding James H. Hankins, of the Hankins-Paulson Co., Uniontown. Others elected are George B. King, Tidodite, Pa.

(Continued to page 152)
Greatest insulation development in 20 years, patented Cellulite-Silvercote combines two types of insulation in one new, doubly effective insulation. Unlike other insulations, which work only one of two ways, Cellulite-Silvercote works both ways:

1. Cellulite-Silvercote has a filler of fluffy, fibrous Cellulite that's up to 36 per cent more effective than other insulations in preventing heat transfer by conduction and convection.

2. Cellulite-Silvercote has two non-corrosive Silvercote membranes that reflect radiant heat with unsurpassed, permanent efficiency.

This new duplex action means up to 70 per cent greater effectiveness than any other insulation can give...the greatest insulation value on the market...a K-Factor of 0.12.

Sturdy vapor barrier exceeds FHA requirements. Gilmanweld nailing flanges are extra strong to speed and simplify installation. Compact packaging of rolls means easy handling.

Cellulite-Silvercote is flameproof, moisture resistant, pest repellent; contains no irritating fibers, odors or dust...is permanent — can't sag, settle or pack.

Write today for full information on Cellulite-Silvercote's greater values for you and your customers. Cellulite sales have tripled in three years. It will pay you to ride the Cellulite-Silvercote bandwagon.

Wholesalers — Distributorships now available in some valuable territories. For details write or phone Main Office in Gilman, Conn., or sales offices in New York, Chicago, Tacoma, San Francisco or Los Angeles.
A GOOD SOURCE FOR BIG OVERHEAD-TYPE DOORS

It takes experience, coupled with engineering and manufacturing know-how, to construct successfully BIG overhead-type doors like the 17 by 22-foot example shown in the picture. Barber-Colman can claim this experience because, in the 17 years we have been making Barcol OVERdoors, we have designed and built hundreds of large, non-standard-size doors for industrial plants, commercial buildings, municipal installations, and other purposes. The specialized knowledge gained in this work is available to you when conditions call for big doors. With wide experience on thousands of "standard" installations as well, we are in excellent position to work with you on all your overhead-type door requirements. Write for descriptive literature. Consult your Barcol representative for details.

FACTORY-TRAINED SALES and SERVICE REPRESENTATIVES in PRINCIPAL CITIES

BARBER-COLMAN COMPANY
104 MILL ST. • ROCKFORD, ILLINOIS

American Builder, March 1942

(Continued from page 150)

first vice president: O. E. Eyma, Charleroi, Pa.; second vice president: S. W. Means, Pittsburgh, treasurer: R. F. McRea, secretary, and R. F. Greiner, assistant secretary-treasurer, of Pittsburgh, were re-elected. Mr. Hankins, who had completed two terms as president, was elected dealer-director to the National Retail Lumber Dealers Association.

MIDDLE ATLANTIC

The Middle Atlantic Lumbermen's Association three-day fifty-sixth annual convention was conducted at the Claridge Hotel in Atlantic City, N. J., February 4, 5 and 6. This association does not have exhibits as part of its convention program. More than 800 persons registered at this year's meeting.

Officers of the Middle Atlantic group are as follows: President, Watson Malone III, of Watson Malone & Sons, Philadelphia, Pa.; vice president, Claude G. Ryan, Lancaster, Pa.; executive director, Robert A. Jones, Philadelphia; secretary-treasurer, Ray E. Latshaw, Philadelphia, Pa.; dealer-director to

WATSON MALONE III

NRLDA J. Hammond Geis, Baltimore, Md.; dealer-director to U. S. Chamber of Commerce, Joseph W. Brosius, Wilmington, Del.

TYPE D PANEL—Box beam formed by welding together two steel sections. Side laps interlock to form continuous flat surface. Cover plates available for open cells to provide two flat surfaces. Standardized in 16" width. Depth 11 1/2" to 9". Gages 18 to 12.

NEW METHOD OF FLOOR CONSTRUCTION
Better Floors-Faster!
with Fenestra Building Panels

1. WHY IT APPEALS TO HOME BUYERS.
It's a stronger, safer, noncombustible floor of steel. It can't warp or shrink. It provides an attractive ceiling for the basement. It marks your houses as up to date—tells prospective buyers that you have built well.

2. WHY IT SAVES CONSTRUCTION TIME.
Two men, without special skill or special tools, lay the 16"-wide panels in standard joist lengths. Since the panels serve as joists, bridging and subflooring, much time is saved. Linoleum, wood or other finished floor material of your choice can be laid quickly on the smooth top surface of the panels.

Fenestra Building Panels come in a range of types, sizes and weights for almost any building need... save you time in construction of floors, walls, roofs, ceilings and partitions. For full information, mail the coupon, or call us.

DETROIT STEEL PRODUCTS COMPANY
Building Panels Division
Dept. AB-3, 2260 E. Grand Boulevard
Detroit 11, Michigan

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

Name ____________________________
Company __________________________
Address ____________________________
Highlights of the convention were addresses by Senator Kenneth S. Wherry of Nebraska, Congressman Samuel K. McConnell, Jr., Pennsylvania, and Lloyd J. Weir, sales and marketing consultant, Philadelphia. Dealer clinics, open to retail dealers only, were conducted on the morning of each session.

**ILLINOIS**

More than 3,100 registrants crowded the Sherman Hotel in Chicago for the fifty-eighth annual convention of the Illinois Lumber and Material Dealers Association February 10, 11 and 12. The 128 exhibits of building materials, equipment and services for dealers taxed the exhibit hall capacity of the Sherman.


Directors elected are Paul Leach, Joliet; Rodney Ainsworth, Moline, and Robert H. White, Marissa. Other board of director members are Earl Anderson, Litchfield; C. B. Elliott, LaSalle; Joe P. Flannery, East St. Louis; W. Lindley Huff, Decatur; Charles A. Smith, Rock Falls; Bob Stotlar, Herrin; Otto Wahlfeld, Peoria, and John A. Wheeler, Newton.

**C. W. Ingham Heads West Coast Lumbermen**

C. W. INGHAM was re-elected president of the West Coast Lumbermen's Association at the thirty-seventh annual meeting in Portland, Ore., January 29 and 30. All other officers of the Association were re-elected along with Mr. Ingham, who is vice president. C. W. Ingham Heads West Coast Lumbermen.

In Canada—Fiat showers are made by the Porcelain and Metal Products, Ltd., Orillia, Ontario.
LAVISH WITH COMFORT!
A MISER WITH FUEL!

EVERY NIGHT
THIS MIRACLE
THERMOSTAT
SAVES FUEL

THE NEW Chronotherm

WITH Chronotherm, Honeywell's handsome new electric clock thermostat, owners of your homes can enjoy the most carefree heating comfort they have ever known—and at the same time save fuel! Chronotherm keeps homes at just the right comfort temperature from morning to night. Then, when the family retires, it automatically switches to lower fuel-saving temperature, or in mild climates, shuts off the heat. In the morning, the desired daytime temperature is restored gradually, without overshooting. The result, according to government authorities, is savings of 10 per cent or more of the heating bill—with complete comfort and convenience. Make certain you include Honeywell's new, nationally advertised Chronotherm in every house you build. It is another way to provide your homes with the newest in modern improvements. Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada: Toronto 12, Ontario.
The NEW JACKSON BUILT-IN home DISHWASHER

The New Jackson Home Dishwasher is a machine that can be incorporated in the builder's plans and be built in the drainboard, or installed in present drainboards.

The Jackson Dishwasher will wash and rinse a basket of dishes in approximately one minute. It is a machine that can wash dishes for two people—or 100 people—since while one basket is being washed, the other can be filled. The Jackson Dishwasher, with features entirely new to the home dishwashing field, can be a strong selling point in the houses you build.

NEW MACHINE BACKED BY 23 YEARS EXPERIENCE IN DISHWASHING FIELD

The new Jackson Home Model embodies all the highly successful features of the world-famous Jackson Commercial Dishwashers. Dishwashing machines have been the exclusive business of the Jackson Dishwasher Company since 1925. At last, here is a machine for the home with proven performance and dependability.

For installation, a 19½ inch hole is cut in drainboard. Here, cover—which fits flush with drainboard—has been removed to show dishes in machine.

Monel metal hood, solid one-piece base casting. Centrifugal pump operated by ½ H.P. motor maintains constant high water pressure in machine.

Washing operation. Double revolving wash sprays force water under high pressure over every surface of articles being washed.

Rinsing operation. Separate revolving rinse spray, using fresh clean water, thoroughly rinses—and the dishes are done.

The Jackson Built-In Home Dishwasher, designated "Model H-1A," is now in production. Your inquiry is invited.

Write today for literature, prices, and complete information.

THE JACKSON DISHWASHER CO.
Dept. AB, 3703 East 93rd St. Cleveland 5, Ohio

Dishwashing Specialists Since 1925

How-To-Do-It

How to Lay Out Stairs With the Correct Ratio Between Treads and Risers

C. C. BOLES, Saginaw, Mich., offers the above suggestion.

A 12 inch tread and 5⅝ inch riser is considered the standard for an easy flight by the average stair builder. By using this standard as a guide, the above diagram has been prepared.

Draw two horizontal lines about 20 inches long and 5⅝ inches apart. These are indicated on diagram by letters A, B, C, and D. The vertical line EF is then drawn about 10 inches high, starting from line AB, 12 inches to the left of A.

From these three basic lines the rise and tread of any stairs may be correctly determined by the following procedure.

Due to lack of room, it may be necessary to build a steeper stair. Then the builder is forced to change the ratio. For example, an 8 inch riser is determined, requiring a narrower tread. Therefore, establish a point 8 inches high from line AB, marked H. Connect AH, by a straight line, crossing CD, at I. Drop a line from 1 to J, then AJ, will be the width of tread for the 8 inch riser.

A terraced lawn or a long gradual rise to the approach of a public building, for example, may call for only a 4 inch rise. Therefore, measure up from AB, 4 inches to point K. From A, through point K, extend a line to L, on CD. From L, drop line to M, AM, is then the width of tread for the 4 inch riser.

In practice the treads and risers will figure out in fractional parts of inches, in which case the rule applies just the same.

How to Repair Defective Downspouts, Gutters

To COVER a hole in a rusted drain pipe, first paint a coat of plastic around or adjacent to the hole. Stretch a tire or piece of heavy cloth across the hole, with the edges well out in the plastic around the sides. If the builder uses a (Continued on page 158)
How to clinch more closings on the floor

Wide-awake contractors know this from experience. You gain two ways when you standardize on Devoe floor-finishing systems. When customers find you're using materials they recognize as top quality, they gain respect for your workmanship—enthusiasm for your houses.

Devoe floor-finishing systems give fine results

...CUT OVERHEAD AS WELL. FOR INSTANCE:

Devoe 87 Filler-Sealer Topped with Devoe 87 Spar — Here's a truly postwar quality combination for fast work and superb results. Both are made with Devran (Patent applied for) the new Devoe miracle resin, for extra durability. National advertising on 87 Spar is heavy—your prospects will recognize it as a top-quality floor finish.

Devoe Floor & Trim Seal — A one-product finish with real appeal to your most quality-conscious prospects. In a single operation it seals and case-hardens the wood and gives a surface ideal for buffing to a soft, rich finish. Quick and easy to apply by brush, rag, or mop. Ready for re-coating in only 4 hours!

Get full details on these fine Devoe products from your Devoe Agent or write us direct on your letterhead today.

DEVOE & RAYNOLDS COMPANY, INC.
787 First Avenue, New York 17, N. Y.
Of course only the finest hardware goes into well-built buildings. That's why so many of the world's outstanding buildings are equipped with Schlage . . . the finest in quality locks.

Write for Illustrated Booklet: "Locks by Schlage"

 HOW plastic is spread on each side of the defective part of a downspout or gutter before applying burlap or cloth through—it is a good idea to spread plastic over the entire surface and spread a burlap or piece of cloth over the area.

How to Make a Guide For Marking Center Lines on Boards

USED in the manner shown above, this guide will mark boards of various widths right down the center of the board without any adjustments.

A piece of scrap wood about one foot long is fitted with a handle of either wood, metal or leather. Nails are then driven all the way through the piece of scrap wood, two near the ends and one in the center. The nail in the center is driven through the wood so that it projects no more than 1/8 inch.

To mark a board, place the guide so that the outside nails touch the edge of the plank. Then draw the guide down the entire length of board as may be required. Submitted by Herbert E. F., New Braunfels, Texas.
Will that new building show a profit ten years from now . . . twenty years from now? Not if maintenance costs eat up the income! Before you build, be sure you cut window maintenance costs to the bone. Make sure your specifications call for quality windows made of Alcoa Aluminum.

Non-warping, corrosion-resistant aluminum windows eliminate painting costs; are easy to keep clean and attractive. Aluminum windows stay snug fitting and weathertight. Alcoa Aluminum can't shrink or swell; will not rot or rust away.

Quality aluminum windows, in all standard types and sizes, are available for every type of building—commercial, industrial and residential. For information on any application of aluminum, write ALUMINUM COMPANY OF AMERICA, 1914 Gulf Building, Pittsburgh 19, Pa.
DO YOU KNOW
the latest trend
in floors for homes?

Wright Rubber Tile — first choice for Commercial
installations — now offers smart new floors for homes!

In a recent national survey, builders and architects picked rubber tile
floors as their number one choice for commercial installations. But that’s
not all — figures from the same survey show the trend is to rubber tile
floors for homes.

In Wright Rubber Tile, it’s W’rightex that’s best for homes. A wide
variety of warm, rich colors, and different sizes readily lend themselves to
any floor design, color scheme or period plan. Equally important — the
same outstanding features of unusual walking comfort, wear resistance,
and easy low-cost care, that have made Wright Rubber Tile the favorite
in commercial installations, now make it number one for home floors too.

Where radiant heat is planned, exhaustive tests and many installations
have shown that Wright Rubber Tile has an excellent heat diffusion
characteristic. Equally important, it’s absolutely unaffected by high
temperatures!

NOTE!
Don’t forget Wright-On-Top, the new com-
pression base for all type floors. Always
beautiful — will not
scuff or mar.

Next time you plan a home — remember Wright
Rubber Tile. It can make your floor plans have
timeless smartness. See your dealer or write
direct to us for detailed information. Taylor
Manufacturing Company, 3050 West Meinecke
Avenue, Milwaukee 10, Wisconsin.

WRIGHT RUBBER TILE
Floors of Distinction
NEW!
1948 Catalog of Basic Plywood Data

Sixteen pages of specification data, grade description and application suggestions—a basic manual for all who buy, sell, specify and use Douglas fir plywood in construction.

SEND for free copy of this new Basic Plywood Catalog—a reprint of the sixteen pages appearing in the 1948 Sweet's File, Architectural. It covers the full range of Douglas fir plywood data, from panel sizes to finishing procedure. Single copies mailed free to any point in the United States.
How to Repair Venetian Blinds Quickly

This suggestion is submitted to the readers of the American Builder by Herbert E. Fey, builder of New Braunfels, Texas. “Here is a simple little trick that I use when broken dowel pins need to be replaced in Venetian blinds.

First, cut off the defective end of the shutter as shown in the drawing, after which a 5/16-inch hole is drilled through the blind frame and the exact center of the shutter end. Then a wooden dowel pin is cut to the shape shown, with the largest portion of dowel being 5/16-inch in diameter, and the smaller portion slightly larger than the hole in the shutter. The dowel pin is then driven into the shutter from the outside.

“I have found that this is about the only way that blinds can be repaired without taking them completely apart. When an attempt is made to remove and replace a defective shutter, all the other members fall out of position and it becomes extremely difficult to line them up in their proper order. Needless to say, the hole in the blind frame must be drilled oversize to permit the shutter to move freely.”

How to Hang Cabinet Doors Accurately

“When I am faced with the task of hanging cabinet doors accurately,” says Herbert E. Fey, builder of New Braunfels, Texas, “I always use the method shown here.

“A large single piece of plywood, from which the doors are to be formed, is cut to the exact size of the total opening of the cabinet. Before putting the hinges in place, take a fine hand saw and make a perfectly straight cut from either side.”

(Carried to page 164)
Reason number one—and a big one, too—is PROVED POPULARITY! Crane is the name your clients know best...as proved time and again in nation-wide surveys.

Reason number two is QUALITY...as reflected in the lasting brilliance and smart styling of every Crane fixture. And don’t overlook such Crane extras as finger-tip Dial-ease controls—in all Crane bathrooms, kitchens, and laundries.

Reason number three? COMPLETENESS! Crane offers a style for every taste—a price for every budget. Crane quality extends not only to the fixtures, but also to the piping that makes them work. In heating, too, the Crane line is complete, providing for any system, any fuel.

You’ll find a representative selection from the Crane line in your Sweet’s Builders’ File. Naturally, some fixtures are still coming through faster than others—it’s well to check your requirements with your Crane Branch or Wholesaler.
THE A.B.C. of ATLAS SAVINGS

Basic unit, the Speed Panel, made of rugged steel.

Ingenious, quick-action Wedge Bolt. For rapid joining or stripping.

Speed Panels combine into units of two or more for quick handling.

Forms are quickly positioned for easy pouring.

Light and sturdy. Easy wall assembly. Rapid stripping.

Forms assembled into multi-unit panels for rapid crane handling.

THE A.B.C. of ATLAS SAVINGS

Make us PROVE it!

Atlas Speed Forms
Cut to '50% Off Your Poured Concrete Costs

BECAUSE ..........

1. They cut Form Costs in half.
2. They cut On-Site Labor in half.
3. They're easy to assemble, strip, store.
4. Forms last indefinitely. Many contractors have had 400 uses, are still going strong.
5. On job after job, for hundreds of contractors, on large and on small operations, Atlas Speed Forms drastically reduced costs.

Let us prove it! At our expense and with no trouble to you. Send in the coupon below, it will bring you a data sheet to be filled out. We will then furnish you with a verified estimate on your form work and you can figure the savings for yourself. Five minutes of your time against a fifty per cent saving — the odds are in your favor! And here's the coupon....

*An average figure. Of course special cases will prove an exception. But we may surprise you!

(Continued from page 162)

How-To-Do-It

of the plank. This cut must be in the exact center of the sheet. Be sure that

How to Make a Wooden Raker Gauge

In submitting this suggestion, J. G. Caldwell, San Mateo, Calif., says, "When filing a fancy tooth power saw, the crosscut teeth are filed first to a point.

Then place the gauge shown in the
See for Yourself: New wall construction, utilizing the prime features of Sisalkraft and Sisalation, now enables you to stop the passage of harmful moisture into walls, easily and economically. This simple method provides a permanently DRY WALL in homes PLUS all the advantages of effective INSULATION at no extra cost!

Write today for further information about these two products.

The SISALKRAFT Co., Dept. AB, 205 W. Wacker Drive, Chicago 6, Ill.
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.
"Why hasn't anyone thought of this before?"

Wait till you see the new sales promotion plan Rheem has in store for small-home builders.

READ ALL ABOUT IT NEXT MONTH!

Rheem Home Comfort Appliances
570 Lexington Avenue, New York 22, N. Y.

WATER HEATERS  SOFT WATER APPLIANCES  HEATING APPLIANCES  COOLING APPLIANCES
does double duty

1. Being pure white lead, Eagle RTU has traditional beauty and durability.
2. It's factory-mixed for new efficiency, goes to jobs in original containers.

1. Eagle RTU's fine brushing and hiding qualities make for easy application.
2. Its smoothly gleaming coat gives lasting distinction to your buildings.

1. Eagle RTU is favored by builders for its time-and-labor-saving convenience.
2. It's preferred by homeowners for its whiter white that stays white longer.

1. Eagle RTU is pure white lead paint in a modern form.
2. It is backed by Eagle-Picher's 104-year-old reputation.

---

THE EAGLE-PICHER COMPANY
CINCINNATI (1), OHIO
Member of the Lead Industries Association

---

How to Measure Roof Pitches

The diagram in Figure 15 shows the principal roof pitches. They are called one-half pitch, one-quarter pitch, as the case may be, because the height from the level of the wall plate to the ridge of the roof is one half or one fourth of the total width of the building.

To measure the roof pitch, then, measure the distance from the level of the wall plate to the ridge of the roof and divide this measurement into the width of the building. The fraction, as a result of this division, is the pitch.
Sell the satisfaction that goes with KOHLER Vitreous China Lavatories

It is a real service to your customers to point out the advantages of Kohler vitreous china lavatories. Among those illustrated the average home owner will find the practical answer to his needs.

Made of fine imported and domestic clays, Kohler vitreous china lavatories are fired under intense heat to give them glass-hard, permanently lustrous, acid resistant surfaces that are easy to clean. The chromium plated fittings with pop-up drain are engineered to Kohler high standards of efficiency.

The Gramercy and Chesapeake, both popular lavatories, are available in two sizes, with or without legs. Both are shelf lavatories, as also is the Strand, designed especially for small, narrow rooms. The Jamestown is available with pedestal as well as with legs. The Greenwich combines smartness and low cost.

Send for free copy of new 16-page color booklet showing Kohler fixtures in attractive settings, with practical floor plans, color suggestions, data on sizes and dimensions and other helpful information.

Address Kohler Co., Dept. 17-B, Kohler, Wis.
Rute Trim has the look of quality... it's high quality, too, yet prices are modest! When you think of sliding doors remember Adams-Rite can supply the proper trim from a cup pull to a completely modern lock. You'll especially admire our lock... it is unit-type, easily installed even in narrow stiles by a simple cut-out, no mortise. Two types fit all doors from 1 3/8" to 1 3/8" in thickness. Adaptable to doors of either hand with dead-lock either side and emergency unlocking feature opposite. For maximum security, pin tumbler cylinder operation in the escutcheon is optional. Escutcheon measures 3/4" x 2 3/8". A variety of 9 standard finishes available on all Adams-Rite items.

WRITE NOW FOR YOUR CATALOG SHEETS

AMERICAN BUILDER, March 1948.
What's your score?

(A three-minute test on the effective use of wiring materials)

1 Existing service entrance consists of 3/4-inch conduit, containing two No. 8 Type R wires. How can this installation be made suitable for an electric range, without tearing out the conduit?

A - Install a second service entrance.
B - Run two No. 6 Type T wires and one bare No. 8 conductor in existing conduit.
C - Tap into the next door neighbor's circuits.

2 An electric device that can be seen but not heard helps any builder or architect to sell good wiring to clients. What is it?

A - Electronic toaster.
B - Mercury switch.
C - Piped light.

3 Many electricians are saving time in box installations on residential wiring jobs. How are they doing this?

A - By using precut wooden spacers.
B - Through the use of S-type bar hangers.
C - By nailing boxes directly to the plaster.

Answers:

1 Okay, if you chose B. And you'll be wise to make it General Electric thermoplastic every time you choose a building wire, because General Electric has always been a leader in the production and sale of thermoplastic insulated wire.

2 General Electric's silent mercury switch makes B the only correct answer for modern planners. It is now T-rated at 10 amperes, 125 volts, and is a beauty to look at in any installation. Lasts a whale of a long time, too.

3 Pick B for this one. G-E S-type bar hangers are made to fit framing spaced from 6 to 24 inches. A new, heavy-duty stud affords ample support for any modern fixture.

With a G-E S-type hanger, a box can be located on the bar at any point between studs simply by tightening a single screw.

4 Even "cool" fluorescent lighting sometimes must withstand fairly high ambient temperatures. What would you choose to safeguard such installations?

A - Air conditioning.
B - Cold cathode.
C - Deltabeston® fixture wire.

4 If you picked C, and specify it for your "hot" jobs, you won't go wrong. In fact, always say Deltabeston when heat is a problem in wiring installations.

We hope this little quiz was fun. And maybe it will give you a better picture of General Electric Construction Materials—the full line for all wiring needs. Each part of the line is made for ready use with other G-E wiring materials. It's a line that has been designed for convenience—in specifying—in installation—and in maintenance. And it is backed up by experienced men who are always ready to help you with engineering and application counsel on your every project. It's the kind of one source, one complete line service that makes it easy for you and your clients to do a top-notch wiring job. If you want information on any of our products, please write to Section K6-32, General Electric Company, Bridgeport 2, Connecticut.

Ten or More Houses Now Handled by FHA With One Application

In an effort to simplify operating procedures and improve efficiency of the Federal Housing Administration, Commissioner Franklin D. Richards has announced a new procedure in regard to applications for mortgage insurance on one to four-family houses under the veterans emergency housing provisions of the National Housing Act (Title VI, Section 603).

Under the new procedure only one application form will have to be filled out in applying for mortgage insurance under Section 603 on a group submission of 10 or more properties. Accompanying the application must be plans and specifications for each basic type of house in the group.

The new application forms for group submissions under Section 603 (FHA Forms 2003-G and 2003-S) are now available at FHA field offices, which have been instructed in their use.

Ohio Firm Makes New Aluminum Roofing, Siding

AFTER adding aluminum roofing made by National Aluminum Products Co., Canton, Ohio
KIMSUL blankets provide fully insulated fastening edges.

Comes in light, compact rolls—reduced to 1/5th installed length. Easy to handle—easy to apply.

High thermal efficiency. (U factor of dependable KIMSUL is 0.27.)

Easy to handle—easy to apply.

Caulkability. Cut strips are excellent for caulking around windows and door frames.

4. Extra Flexibility. Fits snugly into corners, behind pipes and other "tight spots".

6. PYROGARD Fire-Resistant Cover. Even its cover is entirely treated to resist fire and flame. A unique KIMSUL feature.

What's more, KIMSUL insulation is precut to fit standard spaces between studs and rafters. It's permanent—won't sag or settle. Clean—no sharp particles to irritate workmen's skin. Adds little to structural load. (1,000 sq. ft. of Standard Thick KIMSUL weighs only 115 lbs.) Resists fire, moisture, vermin and fungi—and it's termite-proof. KIMSUL comes in three thicknesses for the proper balance of efficiency and economy. Specify Commercial Thick (about ½ in.) and Standard Thick (about 1 in.) for walls, attics and floors; Double Thick (about 2 in.) for attics.

KIMBERLY-CLARK CORPORATION
KIMSUL Division, Neenah, Wisconsin, U. S. A.

Insulate when you build.
Over-all insulation means ready salability.

KIMSUL INSULATION

FREE INSULATION BOOKLET
A brand new manual filled with technical data you can use. Prepared by the makers of KIMSUL. Write us for your free copy on your business letterhead.
This cutaway view shows why the Improved ACME TWIN is the most efficient sash balance ever designed.

1. Oil-impregnated fibre washer between Cable Drum and Face Plate insures friction-free operation.
2. Cable Drum fits snugly into Protective "Cap".
3. Tension Governor maintains uniform spring action and balancing.
4. Spring Hubs rivet at both ends assure TWO solid bearing points.
5. Powerful Coil Springs provide positive, effortless window opening.

New "Integralock" Designed For Average Small Home

SARGENT & CO., New Haven, Conn., has developed a new lock set for exterior doors, primarily to be used on residential construction. Known as the Sargent Precision-Built Integralock, it is made with a round rosette and pear-shaped knobs.

A unique feature of the Integralock is the ease with which a housewife can, by a quarter turn of the key, release both the latch and dead bolt and open the door.

Another important feature is the use of a shear pin in the cylinder knob which gives way when subjected to extreme torsion, allowing the knob to spin harmlessly. Yet the regular key will continue to retract the bolts.

The accompanying pictures bring out the beauty of the lock. The lock set is made of heavy cast brass or bronze, with exposed parts polished to high finish and heavily lacquered to retain the original luster. The Integralocks are manufactured in six types of finish: Bright Brass, Dull Brass, Bright and Dull Nickel, Bright Chrome, and Dull Chrome.

In designing this lock, the prime factors considered by the manufacturer were strength, simplicity, ease of installation, and smooth, precision operation. The small number of working parts together with ease of alignment make installation simple.

The lock has self-lubricating Oilite bearings. Three of these bearings ride in elongated slots in the lock case cover to ensure smooth functioning of the retractor.

Through mass production methods, Sargent has developed the Integralock in the price range for the average small home.

See your hardware or building supply dealer or write direct for literature.
GIVE BASEMENT FLOORS BEAUTY and HARDNESS

with ART-ROC Built-in COLOR

Add the Eye-Appeal and Sales-Appeal of Beautiful Concrete Floors... at Low Cost

Concrete is a grand material—but who would choose an ordinary, uncolored, concrete floor in their basement if they could have a richly colored, super-hard surfaced floor at almost no extra cost! That is exactly what you can give clients with Truscon ART-ROC. Dusted on before finish troweling, ART-ROC will take all kinds of punishment because it is much harder than ordinary concrete. Any basement, terrace, porch, sun room, salesroom, store, restaurant, with such a floor has eye-appeal and sales-appeal which will gratify owners and prospects alike and will give your work colorful distinction. We invite your inquiries. Write Dept. AR-12, Truscon Laboratories, Division of Devoe & Raynolds Co., Inc., Detroit 11, Michigan.
Picking up a Stanley Hammer is like grasping the hand of an old friend. It feels just right because it’s skillfully made to the measure of your own skill. Forged from special analysis steel and given two super heat treatments. Handle is locked in head by “Evertite” process, exclusive with Stanley. Stanley Tools, New Britain, Connecticut.

**Good friend of a good right hand**

**Clark Equipment Studies European Market**

THE Export Division of Clark Equipment Co., Battle Creek, Mich., through their sales manager, W. P. Baranowski, is making a first-hand study of sales opportunities for Clark products in more than 15 countries from the Scandinavian peninsula to North Africa.

In order to appraise the potential market for Clark fork trucks, towing tractors and special handling attachments, Mr. Baranowski will study in particular methods employed for handling material, in intra-plant movement, packaging and loading, and in stevedoring operations.

**Asphalt Tile Industry To Increase Output**

Demand for asphalt tile flooring has grown to such an extent during the past year that the 12 companies which make this flooring have increased their manufacturing facilities to five times their prewar capacity, it is announced by the Asphalt Tile Institute.

Despite these increased facilities, the continued high level of new construction activity, coupled with millions of dollars’ worth of home and business building remodeling planned for the next 12 months, is expected to force production to capacity during 1948.

The use of asphalt tile flooring for almost any installation has become general during recent years by builders and architects. Its low price, low cost of installation and maintenance plus the fact that it is available in a variety of colors and sizes are factors which contribute to its increasing popularity throughout the building industry.

The development of basementless homes has also given considerable impetus to the demand for asphalt tile. These homes use a single concrete slab for foundation and floor, and most builders cover the slab with asphalt tile because it is the only smooth-surfaced, resilient flooring recommended for use on concrete resting on the ground. The material is not affected by moisture which is generally present under such conditions.

The material also is used extensively in the conventional home, particularly in kitchens, bathrooms, hallways and basements.

**Bird Neponset Black Vapor Barrier**

Bird Neponset Black Vapor Barrier is the permanent answer to expensive “in-wall” condensation. Applied on the warm side of insulation, it repels vapor, ends stained walls and peeling paint... and it keeps insulation at top efficiency.

A small investment for long-lasting protection, Bird Neponset Black Vapor Barrier costs only about $20.00 to give a $10,000 building dry walls that stay dry. Consult Sweets Architectural File, 9b-2. For sample, write Bird & Son, Inc., 10 Pine Street, East Walpole, Mass.
Great structural strength

Easily worked with carpenters' tools

Presdwood quickly transforms an unused attic into this cheery, modern child's room. Presdwood is used for ceiling, walls, built-in cabinets.

This durable, time-proved hardboard is the sign of quality construction. And its uses are numbered in the thousands. Because of Masonite® Presdwood’s® characteristics, it provides unusual durability and beauty for virtually every kind of construction or remodeling job. It can be bent into curved shapes. It is smooth, grainless, extremely hard and dense. And it goes up easily and quickly. Presdwood is made from natural wood, refined to a better, stronger, wonder wood. Lumber dealers have Presdwood — both Untempered, and Tempered to extra hardness. Write for technical data to Masonite Corp., Dept. AB-3, Chicago 2, III.

© Tred Air Men 2 Pat. Of. c The best wood is Presdwood The leading hardboard MADE FROM EXPLODED WOOD
Williams Oil-O-Matic Starts Fuel Saving Program

A PLAN to help conserve fuel oil and alleviate the threatened national home heating emergency was launched in Champaign, Ill., early this year by engineers and executives of the Williams Oil-O-Matic Divisions of Eureka Williams Corp. The firm, from national studies, is convinced that anywhere from ten to fifty per cent of the fuel oil used in U.S. homes and the heat it produces is wasted, mostly unknowingly. They set out to prove it in Champaign, an average American community.

Led by their chief, W. A. Matheson, executive vice president of Eureka Williams Corp., these men, 75 in all, rang doorbells and called on oil-heated homes to try out their checking formula. Each was equipped with heat loss handbooks and instruments to check heat and oil wastage. They probed from cellar to attic to find the common forms of heat and oil losses.

The researchers concerned themselves with all phases of automatic home heating — insulation, storm sash, weather stripping, caulking and poor heating practices, as well as with oil burners and heating plant performance.

When compiled, the results of the Champaign tests are to be released nation-wide, and the national dealer organization of Williams Oil-O-Matic mobilized to make these free surveys of oil-heated homes throughout the country.

Before sending his executives and salesmen out as researchers, W. A. Matheson, executive vice president, told them that the national home-heating emergency was really a very great opportunity for the oil heating industry.

"We are now doing things," he said, "that we should have done long ago.

We have concerned ourselves too long with oil burners and furnaces and boilers — rather than complete automatic home heating. That means everything that makes a home comfortable, healthful and heated without waste of money or work and trouble.

"We now are finding that complete automatic oil home heating includes the sale of oil and oil burners, oil-fired furnaces and boilers, heat circulating equipment, controls and clock thermostats, insulation, storm sash, caulking and public education on the best home heating practices.

"This is the business all our dealers — and every other heating dealer in the country who wants to be successful in the future — will be in. We have renamed our dealers to make them conscious of this. They will now be known as Complete Automatic Home Heating Merchants.

"The whole thing boils down to fuel conservation at the point of heating, and heat conservation above this point. The two are Siamese Twins inseparable. From now on, our concern must be not with the price per gallon of oil, but the price of heating the home per year.

"There are 350,000 oil burners in this

(Continued to page 180)
More and More Home Owners are Demanding New STEELCRAFT STEEL CASEMENTS

...Proved BETTER by Actual Laboratory Tests!* 

Easy to Install, Easy to Operate, Easy to Clean! Steelcraft Casements Give Complete Customer Satisfaction!

In swiftly increasing numbers, home owners are coming to know the many great advantages provided by STEELCRAFT Casement Windows. Added benefits of strength, lightness, beautiful appearance, foolproof operation... plus remarkable ease of cleaning and screening—these assets are encouraging more consumers to request, and contractors to recommend, STEELCRAFT Casements. View this growing market potential in the light of finer engineered casement construction and greater durability... and prompt delivery... and you have the solution to all your window problems—with STEELCRAFT Casement Windows!

STEELCRAFT CASEMENTS PROVED LIGHTER YET STRONGER IN INDEPENDENT LABORATORY TESTS...

Here it is... vivid, indisputable proof of the superiority of STEELCRAFT Steel Casements! When analyzed with the steel casements of three other leading manufacturers, STEELCRAFT showed 15% less pressure-induced deflection than the next strongest window, 34% less deflection than the weakest window tested. Results testify that STEELCRAFT is built to withstand from six to eight times the normal masonry load on openings of the width tested.

The on-the-scene laboratory photo (right) shows STEELCRAFT Type 2423 steel casement undergoing vertical deflection analysis in load-testing machine. Supports at bottom edges of casement allow deflection measurement at center of bottom as load is applied top center. Loads were up to equivalent of 600 lbs. per lineal foot.

MAIL THIS COUPON TODAY!

STEELCRAFT MFG. CO.
9036 Blue Ash Rd.
Rossmaney (Cincinnati), Ohio
Please send me, without obligation, complete descriptive literature on STEELCRAFT Casement Windows.

Name: 
Position:
Business Address:
City:
State:

STEELCRAFT MFG. CO.
9036 Blue Ash Rd.
Rossmaney (Cincinnati), Ohio
Please send me, without obligation, complete descriptive literature on STEELCRAFT Casement Windows.

Name: 
Position:
Business Address:
City:
State:

Please send me, without obligation, complete descriptive literature on STEELCRAFT Casement Windows.

Name: 
Position:
Business Address:
City:
State:
(Continued from page 178)

country which should be replaced. Most of them are oil wasters. Many were installed years ago when there was no concern about how much oil was used so long as there was plenty of heat.

"These burners not only waste oil, but they are costing users plenty of money every year. We have done very little about this big replacement market. But now that we are unable to sell new installations in many markets, we are more or less forced to. It looks like the fates are forcing oil burner dealers to be successful."

Robert S. King
Elected Director of Diamond Match Company

ELECTION of Robert S. King of Indian Hill, Cincinnati, Ohio, as a director of the Diamond Match Co. is announced by Robert G. Fairburn, president.

Mr. King is president of the Philip Carey Manufacturing Co. of Cincinnati.

FLEXSAW

FLEXSAW

MAKES ANY CUT

Use it for Production Work, Construction out on the Job, or in Job Shop or Hobby Shop

A rigid, rugged, accurate, portable saw that makes cuts 3" deep and up to 15" wide. Knocks down into two 55 lb. units for transport in any car. A truly ONE MAN saw. Ideal for farm use, builders, hobbyists.

Rapid adjustment for any cut—no wrenches required. Rigid in all positions. Large, easily read dials for setting all cuts, eliminate all guesswork.


PRICED SO LOW YOU CAN OWN IT $125

Less Motor: F.O.B. 50c FACTORY GUARANTEED

See your local dealer, or write direct to:

THE FLEXSAW CO.
PORT AUSTIN, MICHIGAN

THE FLEXSAW CO.
PORT AUSTIN, MICHIGAN

Don't!

BE A BEAVER

The beaver does a good job, but he does it the hard way. Don't wear yourself out on the end of a hand-saw, or struggle with heavy, cumbersome mechanical saws that waste your time and are only half accurate.

Robert S. King

OHIO manufacturers of building supplies. He joined that company in 1939 and was elected president a year later. He is a former president of the Penn- zoll, Refiners' Oil and State Oil companies, and was vice president of Socony Vacuum, in charge of the General Petroleum Co. of California.

Tiletone Company To Expand

A CHICAGO industrial tract one block long has been leased by Tiletone Company, manufacturers of pre-finished tile wallboard panels and steel and aluminum alloy shower cabinets. The new space will be utilized in expansion of the company's shower cabinet operation and development of new products for the building trade.

The new consolidated lease includes the present Tiletone plant at 2323 Wayne Ave., additional corner property at Fullerton and Belden Avenues, and switch track facilities of the Milwaukee, St. Paul, and Pacific railroad. The Tiletone Company moved into its present location in August, 1945.

Fred L. Anway, president, stated the term rental for the twelve-year period is $256,666.27.

Tru-Strength Toolbox

FARGO TRU-STRENGTH TOOLS

FORCED AIR HEATERS

with wire mesh screens

Write for free Bulletins

All-Weather Folding Rígidity

RHODES, DIV. OF DORVISE

American Builder, March 1948.

Camellia House also utilizes the protective features of Truscon Security Steel Windows, at those points where ventilation is desired — with extra protection against unauthorized entry. This is a highly desirable safety feature, especially wherever the property of a large number of people is concentrated in one structure.

Truscon Security Windows, Reinforcing Bars and Metal Lath also serve this handsome structure.

Adequate Reinforcement

Rigidity of structure in Camellia House is assured by the use of Truscon Steel Reinforcing Bars.

Truscon Reinforcing Bars

Truscon Steel Bars for reinforcing are applicable to a wide range of concrete work, such as concrete slabs, beams and girders, columns, walls and footings; in the construction of buildings, bridges, tanks, and all other concrete structures subject to tension and compression stresses. Write for details.

Truscon Metal Lath a Beauty Aid

Truscon Metal Lath has a wide range of types of metal lath, corner beads, stucco mesh, corner reinforcements, hollow partition studs, base screeds, cold rolled channels and other products related to the plastering trades. All Truscon Metal Lath products are manufactured in accordance with U. S. Department of Commerce Simplified Practice Recommendation R-34. Write for free catalog showing the complete line, or refer to SWEET'S.

The generous use of Truscon Series 138 Double-Hung Steel Windows in Camellia House offers its residents an opportunity to enjoy Colorado’s brisk air and bright sunshine as desired. Smart and sparkling, too, is the pleasing window pattern achieved by the ample number of the windows across each facade and around outside corners.

This outstanding window was an original development by Truscon as an answer to the insistent demand for an economically priced steel window in the popular double-hung design. To attain a production volume permitting sale and installation at a price level comparable to that of the conventional type residential window, it was necessary to design and construct special manufacturing equipment capable of high quality fabrication in mass output, with a resulting minimum of manufacturing cost.

Of major importance in the Series 138 Truscon Double-Hung Steel Windows is the fact that the sash members are of welded tubular construction. This adds greatly to the strength, durability and finished appearance. Weights and cords are not used. Operation is controlled by motor type spring balances equipped with tapes of Enduro stainless steel. Quiet, positive action and long trouble-free life are assured.

Each window is completely factory weather-stripped in stainless steel. Screening is easily and attractively accomplished.

The low cost is reflected not only in the window price, but in all accessories. Frames are prepared to receive screens and storm sash of the simplest and most economical type. Shade, drapery, curtain or venetian blind fixtures, of standard types are easily attached to the interior side, in holes provided in all units.

Write for complete information.

New Literature

A 36 page catalog complete with installation details and specifications on Truscon Double-Hung Windows and Casements; write for your free copy.

TRUSCON STEEL COMPANY
YOUNGSTOWN 1, OHIO
Subsidiary of Republic Steel Corporation
COMPLETE
WEATHER
PROTECTION
FOR MASONRY
Above Grade
Cabot's Clear Brick Waterproofing
For red brick and dark colored masonry.
Cabot's Clear Cement Waterproofing
For cement, stucco, cast stone and light colored masonry.
Cabot's Clear Waterproofings penetrate deep into voids and pores of masonry walls... provide a complete and long-lasting moisture-proof seal... prevent unsightly efflorescence... protect walls from damage caused by freezing and thawing. Walls treated more than twenty years ago with Cabot's Clear Waterproofings are as moisture-proof today as when built.

Below Grade
Cabot's Foundation Coating
A black, bituminous, elastic coating which makes foundation walls completely watertight... assures dry basements... protects masonry from the weakening effects of water seepage. Cabot's Foundation Coating is an efficient termite and insect repellent. Inexpensive and easy to apply.

Write Today
for free samples of these efficient waterproofings and complete information.

Samuel Cabot, Inc.
2222 Oliver Building, Boston 9, Mass.

FROM THE PAGES OF AMERICAN BUILDER
50 YEARS AGO

By Old Timer

"REMEMBER THE MAINE?"
"Armed intervention in Cuba?"
"Down with Spain?"—all were loudly talked about fifty years ago this month; talked about so loudly that before April ended a "splendid little war," as John Hay called it, started.

Hearst's New York Journal had screamed with the headline "THE WHOLE COUNTRY THRILLS WITH WAR FEVER," but he wasn't accurately referring to many people in the building business, for if they had the "fever" they didn't let it interfere with their building, and progress continued about as usual.

Two outstanding exceptions were Philadelphia and Baltimore. Philadelphia was just getting thawed out after a long, severe winter; Baltimore had around 7,000 vacant homes, and some of the builders had submitted a bill to the state legislature in an attempt to do away with cheap, unreliable, and speculative building in the city.

In Newark, N.J., the Master Masons' Association was trying to get 50 cents an hour and a half day Saturdays for journeymen bricklayers and masons; in Cleveland, the painters and decorators were beginning to demand an eight hour day with a minimum wage of 27 1/2 cents per hour, and there were a few similar labor movements in Detroit and in other cities.

Fifty cents an hour was good pay, then, because prices were down accordingly. You could build a ten room house for less than $7,000—and it would include double floors (the upper one of quartered oak; lower one of white pine); a den finished in poplar; chamber floor of poplar, stained in imitation mahogany; and the whole exterior architecturally designed to the latest styles.

In New York City—right in the midst of this "journalistic warfare"—Columbia university, designed to be the largest college building in the country at the time, was under construction.

In Rome, N.Y., the Wilson Manufacturing Co. were erecting their new plant to turn out bath tubs with a white enamel finish on them. Since most bath tubs in those days were solid copper and copper lined, this new enamel finish was really something to talk about.

Bath tubs were in the news in another town about this time, Mrs. William Shaw, Jr., a socially minded lady in Pittsburgh, Penn., gave that city a new fireproof public bath house — tubs, showers, and all—so that people financially unable to own their own bathing facilities would be provided for. The

(Continued to page 184)
YOUR REQUIREMENTS FOR

Like fitting a gown to a personalized form... you can meet exact requirements on your domestic, commercial or industrial radiation heating job with one of the thirty-six automatic gas-fired boilers provided by the Bryant Line. Bryant Boilers are rated from 67,500 to 3,996,000 btu per hour, backed by full automatic operation, long-life, cast-iron sections and high operating efficiency... all proved in thousands of on-the-job successes since 1908. For perfect fit in hot water, steam and vapor systems, or for hot water storage applications, choose your gas-fired boilers from Bryant's thirty-six sizes... the perfect 36 for radiation heating.

MODEL 26 — A.G.A. ratings sq. ft: Steam 230-600, Water 360-1920. Inputs: 67,500 to 360,000 btu per hour. For moderate size hot water and steam radiation heating systems. Features maximum heating surface, with water tubes surrounding the combustion chamber. Jacket is asbestos-insulated, completely encloses boiler and controls... A favorite for home radiation heating systems.

MODEL 455 — A.G.A. ratings sq. ft: Steam 660-2860, Water 1060-4580. Inputs: 198,000 to 858,000 btu per hour. For large homes and other buildings of medium and large size. Water tube design provides maximum brushing action to utilize the most possible heat.

MODEL 630 — A.G.A. ratings sq. ft: Steam 2960-13,320, Water 4740-21,300. Inputs: 888,000 to 3,996,000 btu per hour. For steam, vapor or hot water systems in large homes, apartments, commercial and industrial buildings. Like all Bryant boilers, operates efficiently on natural, manufactured, LP or mixed gases.

BRYANT HEATER COMPANY • CLEVELAND, OHIO • ONE OF THE DRESSER INDUSTRIES
(Continued from page 182) outstanding feature, here, was not so much the gift as it was the fact that even bathing structures were fireproofed. Builders had learned a lot from big fires, such as the one in Chicago, and they weren't taking chances.

A small thing, perhaps, but out in Chicago the Warner Lock Co. had just come out with a new type steel door knob—the first of its kind—significant in that the same type knob, with little changes, is still used today.

The "latest" in architecture in those days had a distinct European look about it. Highly ornate balusters, carved wood capitals, festoons, and gables were all the rage, with tall slender chimneys and other characteristics giving an Elizabethan appearance to most houses. Guess it's only fairly recently that we have become architecturally independent enough to let our own ideas dominate our home building styles.

**Twenty-five Years Ago**

Twenty-five years ago we were still a long way from the independent designs for homes we now have, but there were several trends that indicated we were on the way. The old tall chimneys, for instance, started going out in favor of the shorter, blockier ones you see today; apartment buildings were beginning to come more in style, and some of these—especially on the West coast—were structures that have yet to be surpassed. In California, around Los Angeles and San Diego, housing was on the boom, and Spanish architecture was still in the lead, with hollow tile and stucco as the main elements used in construction of some of the "more modern" homes.

At this time 25 years ago, housing was on the boom in almost all the states. A statement made by Arthur S. Bent, at the fourth annual convention of the Associated General Contractors of America, could pretty well be applied to nearly every significant town in the United States. Bent, who was president of the Contractors in 1923, said at the convention that when he was a boy, he herded cows on the spot where he then was speaking—that the spot had changed from a cow pasture to a busy part of a thriving metropolis.

All in all, Bent drew a pretty accurate picture of the main changes that were made in American building from April, 1898, to April, 1923. A new invention that people called the "radio" was receiving a great deal of attention in the building about this time 25 years ago. Some talked about it in mysterious tones: about how they figured the world was really shrinking down to one size at all. Others spoke reverently of the new invention, as though it would be one of the greatest boons to humanity. Builders were discussing the radio in terms of what probable effect it would have on architecture; thought that architectural provisions for good acoustics would now be of prime importance in the construction of any home where a radio might be installed.

Not much was done to change architectural requirements, that month.
"I put certified adequate wiring in my homes because that certificate identifies me as a reputable builder. I plan to be in business long after the present housing shortage is over and forgotten," says Angus C. Wynne, Jr., Prominent Dallas builder.

**The sign of the times is...**

"Certified Adequate Wiring"

**PROOF ADEQUATE** — another home-building project featuring Certified Adequate Wiring — the Wynnewood development in Dallas, Texas.

**What It Means To You:** Certified Adequate Wiring makes today's home buyers tomorrow's boosters. It helps you build houses that stay modern for years to come. It helps you sell houses easier and quicker because: (1) it overcomes today's buyer resistance; (2) it assures you of promotional support from your local electrical industry.

**What It Means To The Home Buyer:** Adequate Wiring makes even a moderate-cost house, or a remodeled home, modern. It provides not only for today's electrical needs but for those of tomorrow—including such things as kitchen and laundry appliances which can be covered by a "packaged mortgage."

**What "Adequate Wiring" Means:** An adequate electric service entrance; enough circuits, enough convenience outlets; permanent lights and switches.

**Here's What You Can Do About It:**

1. Use the services of your local Adequate Wiring Bureau in preparing complete wiring layout for every floor plan.
2. Install Adequate Wiring in accordance with this layout.
3. Obtain your "Proof Adequate"—a certificate to present with each deed.
4. If there is no Adequate Wiring Bureau in your area, write us for details of how to take advantage of "Adequate Wiring" as a sales feature.
Hardwood Flooring Reaches Record Output in 1947

An all-time annual record of approximately 620,000,000 board feet of hardwood flooring in 1947 was reported by Allen Harris, Jr., president of the National Oak Flooring Manufacturers' Association. The figure, he said, is about double that of 1946 production and some 36,000,000 board feet greater than the previous high, recorded in 1926. It includes unfinished and prefinished flooring of oak, hard maple, beech, birch and pecan, all of which have been in short supply since 1942.

With demand expected to remain heavy due to increased residential building this year, Mr. Harris said, there is a likelihood that 1948 production may top last year's peak output by as much as 100,000,000 board feet.

“Predictions regarding the volume of housing construction in 1948 vary,” he pointed out, “with government sources estimating that 950,000 new non-farm family dwelling units will be started. About 850,000 were started and 830,000 completed during 1947.

“An analysis of the hardwood flooring production chart during the past year indicates that the industry, given the advantage of continued favorable conditions, should be able to keep pace with the expected increase in building activity. Hardwood flooring probably will not be plentiful for some time, but the present gap between supply and demand should be narrowed considerably.”

Vermiculite Institute Announces Changes

A CHANGE in both the name and managing directorship of the Vermiculite Research Institute, Evanston, Ill., is announced. Henceforth, this organization will be known as the Vermiculite Institute. Edward R. Murphy has been named managing director and executive secretary of the Institute, to succeed Vilas F. Watts.

As the change in name implies, the Vermiculite Institute will no longer be primarily concerned with research. Its functions will be the promotion of the use of vermiculite products nationally, cooperation with allied industries in the construction field, and the preparation of new literature and publicity. Mr. Murphy, a civil engineer, is well qualified for these duties. He comes to V.I. from the Gypsum Association, where he was assistant chief engineer for over twelve years. Prior to that time, he was with the structural clay-products industry code authority during N.R.A., and with the former Metal Lath Manufacturers Association.

The new chemically-treated vermiculite concrete aggregate used in producing lightweight insulating concrete, a treatment which makes vermiculite concrete more uniform and less subject to improper usage on the job, is a discovery of Mr. Watts.

The Vermiculite Institute will continue at its present address, 2540 Eastwood Ave., Evanston, Ill.

Built by Practical Home Builders. These experienced construction experts PREFER Copco because they know that Copco cold roll-formed sections make perfect casements. Copco Steel Windows are always uniform, providing tight, faultless fit . . . and greater strength. Follow the example of leading builders . . . next time SPECIFY COPCO.

Write for free illustrated literature and price list on Copco Steel Windows and Building Products.
Now that high quality white patent coated boxboard is again available, Duplex SASH BALANCES step out in brand new packages—beautiful packages for America's finest sash balances—lemon yellow and royal blue for the ADJUSTABLE — yellow and emerald green for the PRE-SET. The first million boxes were delivered to us in January; they'll be on dealer's shelves as fast as we can make shipment.

Inside you'll find...

THE HIGHEST QUALITY IN DUPLEX HISTORY—Guaranteed against mechanical defects for the life of the building . . . AND AT LOWER PRICES THAN IN 1938—Resulting from the mass production methods made possible by overwhelming product preference.

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It weighs only 85 pounds...complete with built-in high-powered gasoline engine...and when it comes to performance, its nine big features are nine big reasons why a Homelite Carryable Pump is the best pump for all jobs...your jobs.

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4. HIGH 28-FOOT SUCTION LIFT
5. NON-CLOGGING DESIGN
6. MAINTAINED RATED CAPACITY
7. DISCHARGE PRESSURE
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Write today for our new illustrated bulletin No. L-503 that tells the complete story and shows how you can get faster, better pumping with Homelite Carryable Pumps.
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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.

AWNING WINDOWS by Gate City

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One hundred and ninety-five manufacturers’ catalogs—1,336 catalog pages—instantly accessible in the 1948 Sweet’s File for Builders. There, right in your office, you will find up-to-date, useful and comprehensive information on forms, characteristics, performance and use of a wide range of materials, equipments and services.

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Century-Old Doorways helped create these MODERN toxic standards

The standards which NDMA has developed for testing the effectiveness of toxic preservatives for millwork did not grow up overnight. Years of research and testing were necessary. Pathologists and non-commercial research technologists studied century-old doorways to learn the secret of the remarkable lasting qualities of wood. The results of extensive laboratory and field tests were carefully tabulated and analyzed.

Today, NDMA Standards for the toxic preservative treatment of woodwork such as doors, screens and windows are accepted as meeting the most rigid requirements of modern home construction. Here are the six steps which NDMA takes to make wood a better building material than ever:

1. An efficient test for measuring effectiveness of toxic preservatives.
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McCORMICK BUILDING • CHICAGO, ILLINOIS

Walls finished with Uni-Tex, Elliott's famous one coat OIL PAINT, have a rich, luxurious, costly velvet-sheen appearance that adds many dollars to the "eye-appeal" of any job.

Yet—Uni-Tex is actually one of the most economical interior paints you can use—

HERE'S WHY:

- Uni-Tex primes, seals, finishes in one coat.
- Comes ready mixed, ready to use, saves time.
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- One coat covers all surfaces, saves money.
- Ten beautiful colors and white.

No wonder more and more builders, contractors, painters and decorators are using Uni-Tex. Try it on your next job and let Uni-Tex prove its merit by actual results.
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Some people create trends — influence others.
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When the people and stores of influence join forces something important happens,
trends are set... sales are made.

House & Garden
brings together the people and stores of influence...
motivates their buying...
starts the action that multiples influence in ever widening circles,
resulting in store displays and local advertising...
and creates the key buying that leads to multiple sales.

HOUSE & GARDEN
The lowest initial cost in the home service field
The Barnum Garage, Bridgeport, Conn., is located directly over an old river bed. For years, when the tide came in, the pit filled with 4 feet of water, rusting cables and causing frequent breakdowns. Aquella was applied in 1945. Since then, though surrounded by water, the walls and floor of the pit have remained thoroughly dry.

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The No. 17 "Over-the-Top" Aluminum Door Unit combines the lightness and durability of aluminum, the strength and sound-absorbency of a sturdy pine frame and the smooth, effortless operation of "Over-the-Top" Door Equipment. For openings 8' wide x 7' high, 8' wide x 7-6" high, or 8' wide x 8' high.

You Can Specify "Over-the-Top" Equipment for Any Size Door

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