Buyers Guide

Including
Light Construction's
Only Directory
At least twice a day,

Berry’s 
anti-sway
feature

protects your reputation
as a quality builder

Along with features like climate-proof weather seal
- adjustable track hangers • diamond grid construction • safety lock tracks • rugged lifting arm • Paintlok-steel that won’t swell, shrink, check, peel.

And only the Berry steel garage door offers you all these features to maintain the name you’ve established. At least twice a day, when the customer opens the door and when he closes it, your high standards are revealed. The anti-sway feature, for instance, eliminates binding at the jambs. It assures that the door will open—at a nudge, every time, in all kinds of weather. And Berry’s quality cuts down those costly and annoying callbacks. What’s more, the world’s largest manufacturer of residential garage doors makes the price right and installation easy. Choose from one-piece and sectional models. Window lites optional. See your distributor or write: Berry Door Corp., 2400 E. Lincoln, Birmingham, Michigan. In Canada: Berry Door Co., Limited Wingham, Ontario.

...full five-year guarantee
Apartments and Remodeling

*Low Initial Cost  *Low Installation Cost

NUTONE NON-ELECTRIC DOOR CHIME & VIEWER


NUTONE NON-DUCT RANGE HOOD-FAN

If your home, or apartment has no provision for ducted kitchen ventilation, this is for you. It's NuTone's Non-Ducted Hood-Fan... the sensational #3400 Series... a new, self-contained ventilating system that attaches easily under the range cabinet or to the wall in only a matter of minutes! 30"-36"-42" sizes in Antique Copper, Stainless Steel, Silver or Copper Anodized, White or Copper Enamel. Priced as low as $84.95 List.

NUTONE WALL HEATER & FAN

Heat PLUS Ventilation combined in one fixture. Saves installation cost, avoids double cutouts and double wiring. The Heater and Fan operate separately or at SAME TIME. Connects to standard house wire. $56.95 list... Other Heaters $18.95 and up.
Any home is more inviting with a friendly musical "hello" at its doorway! Here's elegant charm for your hallways... living rooms or kitchens. Attractive to the eye... soothing to the ear.

SEE OTHER SIDE

25 Chime Models... PLUS a complete line of Pushbuttons and Transformers
MODERN MAID double oven gas built-in with the high speed "Infra Ray" ceramic burner gives your homes an extra sales appeal that is not available in any other built-in oven.

"Super Thin" range tops allow an extra three feet of drawer space per kitchen.

SAVE approximately $117.50 per kitchen with a new one piece built-in. The "Town House 24" slides right in the space normally occupied by a 24" base cabinet. Your choice of gas or electric, brushed chrome or colors.

MAIL TODAY

TENNESSEE STOVE WORKS
CHATTANOOGA 1, TENNESSEE

ONE OF THE LEADING STOVE MANUFACTURERS SINCE 1904
New homes can now be protected against termites for 10 years or more with aldrin

—and there’s no significant increase in building costs.

Aldrin has proved to be one of the most effective termite controls in use today.

Aldrin schedules easily into construction procedures and allows many units to be treated in each working day.

Aldrin is listed in the minimum property standards of F.H.A. for termite control on all types of new construction—slab, basement and crawl space. The U.S. Forest Service, the Armed Forces and many other Federal, State and local agencies responsible for building construction have listed aldrin for use as a soil poison.

Aldrin is long lasting—proved 100% effective for more than 10 years. Because of this, you can use and specify aldrin chemical termite barriers with complete confidence.

Shell Chemical Company, Agricultural Chemicals Division, 110 West 51st Street, New York 20, N. Y.

Shell Chemical Company
Agricultural Chemicals Division
Are we building too many houses?

It would be a great mistake to let the charge that this country is overbuilt in housing go unchallenged. There is no serious overbuilding: in fact, the need for the right kind of house in the right place is the greatest in our history. What has happened is that the character of the market has changed, and is continuing to change. Some builders failed to fully assess what had happened, and overbuilt in certain price ranges and in a few areas. The “inventory” of unsold houses, however, is very small. Builders are now moving rapidly to restudy local markets, bring out new designs, make needed changes.

With Congress now considering a monumental series of new housing bills, it is important that the charge of overbuilding should not be allowed to gain momentum, or used as an excuse to stop housing action. The basic U.S. need for 1.5 to 2 million houses a year in the sixties has been established beyond question. Two Presidential committees have confirmed it, as well as numerous private studies and surveys. AMERICAN BUILDER fixed this goal in its “Set Your Sights” editorial campaign in 1957, and has re-affirmed it many times since. The actual need is far greater than statistics show; it looks like this:

Aim for higher standard of living. The dynamic American economy does not subscribe to a philosophy of housing need based on "just keeping people out of the rain." There's an enormous unfilled demand from people who want to upgrade their living.

Explore small town markets. The smaller towns and nearby rural areas have not had financing and marketing help comparable to other areas. Steps are under way to expand this market. Smart builders are exploring the potential, which is great.

Try a lower price level. An enormous field for sustained building volume lies in lower cost homes. Builders are experimenting with new construction methods, and new financing approaches to expand this market. New long term financing incentives will stimulate such work.

Seek specialized markets. We need greater emphasis on the elderly or retirement house market. More than 500,000 persons a year enter this category. There are now 16.6 million Americans 65 or older. They can be sold through special attention to their requirements: single family houses easy to live in, group housing, or low cost projects sponsored by churches, fraternal groups.

City rebuilding and renewal. This is a field where both private and public effort will skyrocket in the next few years. It has been described as a 50 billion dollar market. Town houses, row housing and new types of group housing will be aided by new financing and zoning concepts. Housing for families displaced by road building, slum clearance and rebuilding will be important.

New approach to remodeling. To keep our old communities from deteriorating, new emphasis will be placed on remodeling and property improvement. Plans for new FHA and private financing on a long term, low-down payment basis are under way. These would permit adding rooms or major additions at low interest cost.

Add to the above the uncountable jobs needed to replace 10 million sub-standard housing units revealed by the 1960 Census and you get a picture of a housing market far greater than the 1,250,000 built last year. It's a picture that refutes any charge of overbuilding, and in fact, cries out for new efforts to expand construction.

Joseph B. Mason, Editor
NEW Firestone TRANSPORT-100 BOOMS TRUCK TIRE MILEAGE 50% ...AND MORE

109 million test miles prove the Firestone all-wheel position Transport-100* delivers 50% and more original tread mileage and more all-weather traction than any other regular original equipment Firestone tire. Even when half-worn it gives faster starts and quicker stops than most truck tires when new. Why? ■ A new tread design.

■ Torque-toughened Firestone Rubber-X; Shock-Fortified cord. ■ A flatter crown to equalize tread print pressure. ■ A broad center rib for better load distribution. ■ “Stone guards” to keep tread pebble-free. See the new Firestone Transport-100 at your nearby Firestone Dealer or Store! In Nylon or Tyrex® rayon cord, tubeless or tubed.

*Firestone T. M.
Member of THE ATA FOUNDATION of THE AMERICAN TRUCKING INDUSTRY
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Tune in Eyewitness to History every Friday evening, CBS Television Network Copyright 1961, The Firestone Tire & Rubber Company
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Editorial office including April Buyers Guide issue: 3 Church St., New York 7, N.Y.


American Builder is published by the SIMMONS-BOARDMAN PUBLISHING CORPORATION, Bristol, Conn., with editorial and executive offices at 30 Church St., New York 7, N.Y. James G. Lynne, Chairman of the Board, Arthur J. McCormick, President and Treasurer; Doane C. Salisbury, Executive Vice President and Advertising Sales Director; George A. Dumenbury, Vice President and Editorial and Promotion Director; A. W. Brownell II, Vice President and Advertising Sales Manager; George W. Hulchens, Regional Vice President; Michael J. Figa, Jr., Vice President and Production Director; J. A. Sparks, Vice President and Publisher; Jack Wyott, Vice President. The editors of American Builder are not responsible for unsolicited manuscripts sent to them. Manuscripts on author wishes to have returned must be accompanied by a stamped, self-addressed envelope.

APRIL 1961
Now! Best Skilsaw models in 36 years!

with new "Burnout Protection" motors, backed by full year FREE service policy!

Take it from us—you simply can’t afford not to use these newest versions of world famous Skil worm-drive saws, they’re that much better!

12 major improvements. To start with, we took the finest Skil power saws ever made (the 6½" Model 367, 7¼" Model 77 and 8½" Model 825) and gave them new B-P motors that give "Burnout Protection" even during frequent, excessive overloads. Next, we made oil level control and oil pressure relief automatic. Then we added a new airflow hood for better cooling, and the convenience of an easier-to-read bevel gauge and a telescoping blade guard that can’t bind even on trickiest miter cuts.

The list of improvements goes on and on to make these, unquestionably, the finest saws ever to carry the name "Skilsaw"... and that’s saying a lot! Ask your Skil distributor for more information, today. Look under “Tools-Electric” in the Yellow Pages. Or write: Skil Corporation, Dept. 106D, 5033 Elston Avenue, Chicago 30, Illinois.

Congress moves to enact Kennedy housing legislation

President Kennedy's special message to Congress on housing covered such a broad front as to effect the business of every builder in the country. Much of it involved long range legislation that will take years to achieve. But on the whole it was accepted by builders as a strong attempt to raise the level of building activity. Indications are that most of his requests will be enacted into law. The 40-year, no down payment loans for FHA attracted major comment. Financing men, as could be expected, viewed with alarm.

Builders "cautious but hopeful": changing their home designs

Views of 50 leading builders polled at the recent Builders' Intentions Conference at the Housing Center in Washington showed that only 7% expect a decline in business in 1961 from 1960. Half expected no change, and 44% a better year. Significantly, every builder polled said he is making "major design changes" inside and out. More than half said they were moving into new market areas. And the percent of those specializing in low cost houses moved up from 18 to 28%.

Now might be the time to follow the leaders—who, by the way, are predicting a 30% increase for themselves. Take a new look at your market and your product. If they don't match, change one or the other—fast.

Slow market sends builders back to school

The combination of a slow market and changing conditions is causing record numbers of builders to go back to school. The trend was first evident at the NAHB convention in Chicago where every clinic, meeting and educational session was jammed. Since then builder training courses of all types have been heavily attended. NAHB is now conducting a series of sales courses in 25 cities, the first of which have been sellouts. They are sponsored by Owens-Corning Fiberglas Corp., conducted by experts: Stan Edge, Jim Mills and Bill Molster.

It's a good year to brush up. For information on Sales Courses, write William Molster, NAHB, 1625 L Street, N.W., Washington, D.C.

Save the good FHA men before it's too late

The FHA is starting to replace its local directors. The Chicago chief was one of the first to go—and most big cities stand to lose their directors to the spoils system. Not everyone is happy over the prospect. Says one prominent Southwesterner: "We're trying to keep our man in Houston, Bill Painter. He's a real workhorse." A common cry: "I wish something could be done to keep the technical men in and the politicians out."

If you've got a good man locally, get to work now. Things to do—Write FHA's new head, Neal Hardy; Wire your Congressman, endorse your man before it's too late.

The changing market: average FHA house priced at $14,607

FHA's just released figures on the 1960 home market show that valuations, taxes, mortgage amounts and buyers incomes all rose sharply. The average FHA home was appraised at $14,607. Table shows some of the significant changes since 1950.

<table>
<thead>
<tr>
<th></th>
<th>1950</th>
<th>1961</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgage's income</td>
<td>$4,213</td>
<td>$7,168</td>
</tr>
<tr>
<td>FHA property valuation</td>
<td>8,594</td>
<td>14,607</td>
</tr>
<tr>
<td>Market price of site</td>
<td>1,035</td>
<td>2,470</td>
</tr>
<tr>
<td>FHA mortgage principal</td>
<td>7,307</td>
<td>13,569</td>
</tr>
<tr>
<td>Floor area (square feet)</td>
<td>894</td>
<td>1,091</td>
</tr>
<tr>
<td>Number of rooms</td>
<td>4.6</td>
<td>5.5</td>
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</table>

APRIL 1961
“How much is enough for advertising?”

JOHN R. SARGENT, partner in the nationally-known management consultant firm of Cresap, McCormick and Paget, points the way toward solution of one of top management’s knottiest problems.

“Good sales management generally knows the crucial sales problems faced by each one of its products. Through good advertising advice plus experience, trial and error, and some judicious advertising testing, sales management also can come to have a good understanding of what advertising can and cannot do.

“At the same time, sales management should be sure to take a careful look at what each of the other sales producing factors are supposed to be doing.

“If all these elements of the sales plan are carefully evaluated, and the key assumptions are checked regularly, you’re off to a strong start in making sure that your advertising appropriations are neither so high as to be wasteful, nor so low as to penalize your marketing effort.”
Shell Houses in the spotlight: sales (and stocks) soar
Sales of shell houses have set new records, and stocks of companies in the business have soared. Latest idea is the sale of these houses in various stages of completion: the buyer can select any phase of completion from a mere shell to an almost completed house.

Most spectacular entrant is Certain-teed Products Corporation, with its IEH Homes sold through authorized builders or lumber dealers. Cooperating builders have a choice of house plans, material lists and other advantages including financing and merchandising.

Reaction of builders to the Certain-teed program has been mixed. Some view this as competition. One prominent builder told American Builder, "I have switched my roofing and siding orders to another company." Others say that IEH is opening a big, new, untouched market they wouldn't get anyway. Most significant: a good many builders are getting into their own versions of the shell house business.

It's a market worth looking into. For a list of Shell House manufacturers, write AMERICAN BUILDER.

Why builders go broke: lack of liquidity
The recession caught a good many builders with too high an inventory, too much land or too little capital. Result: the number of bankruptcies rose sharply last year and is still continuing. Average builder "turnover" is normally about 12%: that's the number that leave the business for one reason or another each year. It's estimated the figure may rise to 20% this year. The casualties have been all up and down the line from very large to very small firms. The reasons come down mostly to one word "liquidity." When sales slowed down, these builders found for the first time that they had not been making as much money as they thought. Their estimating and record keeping was faulty. The limited capital they had was "locked in." Many found that trade-ins instead of a boon were a terrible liability.

Turnover has always been high in the building industry because every year brings in a new crop of untrained, inexperienced firms who often have to learn the hard way. Best way to avoid trouble: strengthen your estimating, accounting, cost control and cost record systems.

"Sweat equity"—a boon to sales in lower-price range
An Ohio builder sold 175 houses in two weeks when he moved into a program allowing the buyers to finish up the houses by their own labor. Most of the downpayment is thus earned by the buyer—it's called "sweat equity."

The idea isn't new, but it has been making great gains throughout the country and builders have found it the best way to tap the very low-priced field. Usually the house as sold leaves the painting to the buyer. Sometimes he also installs interior doors and trim. He also does all his own driveways and walks.

Look into "sweat equity" procedures, check the financing with a smart mortgage broker who can advise on how to handle paper work.

Prefab stocks advance—emphasis on financing and service
Stocks of several of the largest prefab manufacturers—including Inland and National—have advanced sharply on the market. But sales have not been enough to justify such action. Spokesmen for the industry say optimism is built on one concept "all inclusive service." By this they mean that prefabbers are increasingly expanding the "house package" they offer to builders with such aids as financing, land purchasing, cost controls, merchandising, model home displays and sales training. Most important of all is the financing. Another factor in the stock activity may be the entrance of prefab firms into the shell house market.

If you're interested in prefab services, write one of the 69 firms listed in AMERICAN BUILDER'S Directory of Home Manufacturers—page 78 of this issue.
New from Hotpoint

SPACE SAVING APPLIANCES

NEW COMPACT REFRIGERATOR-FREEZER
- Big Inside, Trim Outside—only 28" wide, yet has big-family capacity.
- True Two-Door Combination—with separate 89 lb. zero-degree freezer.
- Space-Saver Hinges—no side clearance needed for door.
- Roomy No-Frost Refrigerator—has real porcelain crisper.
- Handy Glide-Out Shelves.

In a wide variety of models and prices
ELECTRIC RANGES • REFRIGERATORS
AUTOMATIC WASHERS • CLOTHES DRYERS • CUSTOMLINE® DISHWASHERS • DISPOSALLS • WATER HEATERS
FOOD FREEZERS • AIR CONDITIONERS
ELECTRIC BASEBOARD HEATING
NEW AUTOMATIC DISHWASHER
- Exclusive Dual Jet-Spray Action—separate washing arm for each rack, for more thorough cleaning.
- Easy Installation—plumbing and electrical connections can be made from front.
- Huge Roll-R-Racks—roll out for easy loading, hold service for 12.
- Two complete washes, each with fresh detergent.
- Spot-Less Quadruple Rinse—super wetting agent released automatically in last rinse for spot-free results.

Today every building inch counts more than ever before! And Hotpoint takes fewer inches to give your kitchens that luxury look at low cost. For example, the Hotpoint Town and Country Range combines oven and surface section in one low-cost compact unit just 30" wide. The new Hotpoint Compact Refrigerator-Freezer is a true 2-door combination, but it's only 28" wide.

These are not stripped-down economy models. They're full capacity models loaded with deluxe features you can demonstrate and sell...yet still keep your selling price low! Contact your Hotpoint distributor and see the full line. You'll see why Hotpoint appliances are built for builders—like you.

NEW TOWN AND COUNTRY RANGE
- Low Installation Cost—slides in like a drawer, needs just one electrical connection.
- Twin Control Towers—easy to see and reach, yet away from "little fingers" and spatters.
- Automatic Oven Timer—turns oven on and off with pre-set clock control.
- "Super 2600" Speed Unit—heats so swiftly it boils a can of soup in 65 seconds.
- Removable Window Door—for easy oven cleaning.
REDUCES FINISH CARPENTRY COST 65%!

CRATED* FOR DELIVERY IN PERFECT CONDITION

Spacer blocks between the door and frame serve a dual purpose: (1) They block the frame around the door during shipment, and (2) Are used to maintain proper door clearances while the door is being installed. Faces are protected by cardboard when shipped by common carrier.

* PAT. NO. 2489029

WHEN ORDERING specify the following: (Write as shown in sample order below)

Quan. Hand* Size Door Style Specie & Grade Trim Pattern Finish & Style** of Lock

2 RH 2-0x6-8 RHD Flush Birch "A" \#XXX Trim Brass Pass. Lock

*When the door opens TO YOU and the KNOB is on the RIGHT hand side, it's a right hand door.

**Locks are furnished in Passage, Closet and Bedroom Styles.

WHICH PLANT IS NEAREST YOU?

BOSTON, MASS. A. W. Hastings & Co., Inc.

AMERICAN BUILDER
Small broker's office sells itself

This handsome building doubles as business base and advertisement for a yacht brokerage firm.

Simple, functional design and speedy erection make this compact office a builder's delight. It's the home of Columbia Yacht Brokers in Portland, Oregon; but the handsome, versatile structure easily could house anything from a real estate office to a roadside hot-dog business.

Designed by Vancouver architects McCoy and Bradbury, the building makes maximum use of West Coast lumber. The wood effects give the structure considerable warmth and a nautical flair.

The building's unusual shape reflects a growing trend in commercial building design (see detail, below). That's to design so the building not only will serve as a business office but will act as a promotion for the business it houses.

EASY TO BUILD—West Coast lumber adds nautical touch to architects' McCoy and Bradbury design for yacht broker's business office in Oregon.
How can you sell 200 houses

Laramore Construction Company did it on a bean farm in obscure area outside Los Angeles. His story proves there's more than one way to beat depressed markets.

The answer for builder Laramore was to put the right houses on the right land, sell them for the right prices and terms with the right advertising and sales program. The next question became—how do you find out which of each is right?

Market research tells you, according to Lou Laramore, president of Laramore Construction Company, builders of more than 8,000 houses in the Los Angeles area. His sales figures proved that the farm's proximity to the Pacific Ocean and the freeways of Los Angeles, Long Beach, and Santa Ana, provided a huge source of prospects.

Then the question came up—what kind of houses to build? Market research said that Laramore could make out best with homes in the $12,000 to $14,500 range, featuring low down and monthly payments, low closing fees.

So Laramore worked out a finance plan under which the homes would be sold on contract with only $295 down to non-vets plus $90 closing costs. The balance would be payable in monthly installments of $94.50 at 6.5% interest. Once the buyer had paid $995 on the principal (including the down pay-

Smart merchandising gets customers inside
Handsome wrought-iron gate and stone fence creates motif for the entire Eastgate subdivision. Theme attracts large crowd.

Smart planning frees buying parents from "kids"
Laramore keeps supervised playground near sales office to free parents of baby-sitting while they look over the model homes.
Barlett said that many builders start with the house then let the other items fall where they may. He explained that when this is done the builder sometimes finds himself in a higher price bracket than he intended.

These were Laramore's fixed costs: land: $2,800; financing: $875; advertising and selling: $500; overhead: $300; profit: $1,200.

These items total $5,575. By deducting this amount from the selling price, Laramore arrived at the total money available for building the house. Deducting the fixed costs from the original $13,550 price of one house left $7,675 with which to build it.

How was it possible to build an outstanding house for $7,675? "Simply," said Barlett, "by carefully watching every single item of cost then cutting it wherever you can. That means you must look at your material, labor and construction costs, and improve them wherever you can."

A big part of Laramore's success is due to careful researching of the local market. But important, too, was the care taken in putting to work the most modern, up-to-date materials, construction methods and merchandising techniques.

Designers for Eastgate were L. C. Major and Associates of Downey, Calif. Marketing Engineers of Santa Ana handled advertising and promotion.

Salesmen offer prospects low down payment, attractive terms
Homes are sold on contract with only $295 down to non-vets, $90 closing costs. Balance is in $94.50 monthly payments.

Prospects throng to bean farm subdivision in low-price range.
Market research that said $12,000 to $14,000 range would sell best proves prophetic at Eastgate, Los Angeles.
PATRICIAN

NOW!
FULLY
ASSEMBLED
...for
taster,
easier
installation!

Vogue

ROBERTS-FOLD®
METAL FOLDING CLOSET DOORS

The look of custom design preferred by leading Builders, Architects and Designers

- 3 DECORATOR STYLES... Patrician, Moderne, Vogue... designed to give a custom-finished look.
- 14 STANDARD SIZES ranging from 2'0" to 8'0" width in 6'8" and 8'0" heights. Can be combined to close any size opening.
- EASE OF INSTALLATION Each unit is fully assembled and factory-balanced for fast and easy installation.
- PRECISION-ENGINEERED ROBERTS-FOLD® closet doors are made of top quality 24-gauge cold rolled steel panels with rigidly reinforced weldings. Even 8' doors never buckle, warp, stick or jam. Nylon-surfaced bearings glide whisper-quiet along exclusive ROBERTS® twin-tracks.
- PRIME COAT FINISH takes all types of paint without streaking or bubbling. Easy to wipe clean with damp cloth.

WRITE for A.J.A. File No. 101 RM

THE ROBERTS CO. DEPT. A8-4
600 NORTH BALDWIN PARK BOULEVARD • CITY OF INDUSTRY • CALIFORNIA
Quality Products for Home and Industry for over 20 years...including:

SMOOTHEdge® Carpet Gripper • ROBERTS® Tools • ANCHOR-WELD® Adhesives
DRAFSTOP® Weatherproofing • NAP-LOK® Binder Bar • ZEPHYR Range Hoods

AMERICAN BUILDER
Harry Hood says: “Not only do you make a fair profit when you use PIONEER quality products, but you are backed by excellent factory service and a company who always stands behind its warranty.”

Pioneer Manufacturing Co.—always competitive with the market.

For further information, write:
MANUFACTURING CO., QUALITY PRODUCTS FOR MODERN LIVING!
3131 San Fernando Road, Los Angeles 65, California

APRIL 1961
4:55 P.M.

PROBLEM: A NEW OFFICE BY MORNING
9:00 A.M.

SOLVED: THANKS TO NEW MOVABLE PABCOWALL!

The new Movable Pabcowall System is a studless, 24" thick interior gypsum partition that costs 50% less installed than many conventional systems.

In addition, new Movable Pabcowall: saves valuable floor space; is one-hour fire rated; is quickly erected, dismantled, moved and re-erected; has a noise reduction coefficient of 37.7 decibels and weighs less than 7.5 pounds per square foot of finished wall. Height limit 10'0".

And the beauty of Pabcowall is that it adapts to any decor. Handsome 2 ft. modules provide a smooth, clean surface that can be readily painted or vinyl covered. Available with steel or aluminum trim. So for speed, economy and customer satisfaction... specify new Movable Pabcowall.

For free architectural specifications, write (on your letterhead): Pabco Technical Services Dept., 475 Brannan St., San Francisco.

Pabco is made for the West by the Pabco Gypsum Division, Fibreboard Paper Products Corporation, San Francisco, California

APRIL 1961

10-K
T&G plywood panels speed floor framing

New tongue and groove plywood sub floors introduced by Western plywood manufacturers are proving standout performers on a California subdivision.

The panel method is a refinement of the single layer combination subfloor-underlayment treatment which eliminates blocking under panel edges. They are being used by C. B. Chacksfield of Gardena on his 154-unit Rolling Hills housing development.

Key to the method is the tongue and grooving of 2 × 4 × 1 panels of fir plywood 1 1/8" thick. These are laid as subflooring over girders on 4' centers. Standard panels of 2 × 4 × 1 plywood require at least 2 × 4" blocking under the panel edges between girders. The new panel eliminates this requirement and simplifies the floor framing scheme—thus cutting costs.

Chacksfield, whose California contemporary ranch homes range in price from $18,500 to $43,000, says that on a 1,400 sq ft floor area, two men can lay the subfloor in just 5 hours. This includes placing of mud-sills, intermediate wood posts on the piers, girders, and subflooring nailed into place.

"The 2 × 4 × 1 method with carpet-

(Continued on page 10-P)
A "NEW CONCEPT" IN HARDBOARD

Notice how Forest Sandalite used here as a wainscot and as sliding cabinet doors adds a little spark to the room ... offers texture, makes it appealing. What's more, it is very practical. Sandalite is designed to take abuse and still look beautiful. And the price is far less than you'd expect.

CHOICE OF PANELS

RANDOM GROOVE
TEE-N-GEE
PUNCHED
PLAIN PANELS

I am interested in Sandalite.
☐ Please send sample of the board.
☐ Please have sales representative call.
☐ Send Technical Bulletin.
* patent applied for.

WHAT IS SANDALITE?

FOREST SANDALITE IS famous Sandalwood Hardboard with scattered highlights of three shades of color imbedded into the surface. This lustrous finish is baked in permanently ... it won't wear off, it is impervious to water, oil, food stains, dirt, grease, bumps and nicks.

USE SANDALITE FOR:

WAINSCOTS • TABLE TOPS
FEATURE WALLS • DISPLAYS
COUNTER TOPS AND FRONTS
PARTITIONS

FOREST HARD BOARD

FOREST FIBER PRODUCTS CO.
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Firm ________________________________________
Address ______________________________________
City ___________________________ Zone ______ State _______
NOW BUILDING TIME
WITH PABCO'S PRE-DECORATED SIDING: COLORED PAB-FLEX

It's the brand new exterior material that eliminates painting. Completely. (The color's built right in!) You can finish a home five to ten days faster. And save up to ten dollars a day in financing and supervisory help. What's more, Colored Pab-Flex is fire, termite, rot, and dent proof. All at less than a third the cost of brick or stone! In fact the applied price compares favorably with stucco. And there's no waiting for dry weather. No water on the job. No messy clean-up. (The colors? Nine of them in all—five textured, \(3/16\)" thick; four smooth, \(1/8\)" thick. In 4' x 8' panels and other lengths on special order.) Ask your Pabco dealer to show you samples. Soon! Colored Pab-Flex is brought to you by Pabco Roofing Division, Fibreboard Paper Products Corporation, 475 Brannan Street, San Francisco, California.
(Continued from page 10-L)

ing," says Chacksfield, "lets us offer a completely carpeted house at only $300 extra to the buyer."

He also uses 2.4.1 panels for his second floors in single family and garden apartment construction.

"We'd been having a little trouble with springy floors in regular construction," Chacksfield explains. "So we started placing 2.4.1's over regular joist construction on second floors for rigidity. The panels cost only a little more but the heavier, sturdier construction more than makes this up."

The new joint was developed by the research division of the Douglas Fir Plywood Association which tested it under laboratory conditions and in six actual installations in the field.

"In the field tests," says John Hess, DFPA's technical director, "every application showed savings. But some builders claim economies above that of others. Where detailed costs are available, a typical job appears to produce savings in basic floor construction (exclusive of finish) of from 5 to 10%.

METHOD—Panels are placed as subflooring over girders on 4' centers. Standard panels require at least 2x4” blocking under panels edges—a practice method eliminates.

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- APRIL 1961

Just circle the numbers at right and you'll receive the information you want FREE from the manufacturers.
Mail one of these postcards today to get your free catalogs.
Service on April reply cards expires March 31, 1962.
Bathroom cabinets

BATHROOM CABINETS are featured here. Covers recessed and surface sliding door cabinets, mirror-vanity combinations, among others.—Grote Mfg. Co. 
Circle No. 1 on reply card, p. 11

BATHROOM CABINETS are subject of well-organized four-page folder. Finished in choice of five decorator colors and white, the cabinets are shown in basic units and combinations.—Kitchen Maid Corp. 
Circle No. 2 on reply card, p. 11

MEDICINE CABINETS, with and without fluorescent side lights, are featured here. Twenty-four page catalog discusses construction features, gives lots of specification tables.—F. H. Lawson Co. 
Circle No. 3 on reply card, p. 11

STEEL CABINETS for built-ins are available in white, yellow, pink, turquoise or traditional finish. Can fit on matching base cabinets.—Repubic Steel Corp. 
Circle No. 4 on reply card, p. 11

STEEL SHOWER CABINETS are featured in four-page folder. Illustrates two models, gives specifications in chart form. Roughing-in details and cross-section of receptor also appear.—W. F. Norman Sheet Metal Mfg. Co. 
Circle No. 5 on reply card, p. 11

TOWEL RING made of clear synthetic material. Folder shows how it can be mounted on concealed bracket. Can use either adhesive or screws for tile, glass, plaster, wood, metal or plastic.—Mirra-Cote Co., Inc. 
Circle No. 6 on reply card, p. 11

Lavatory legs and towel bars are described in this brochure. Designed for all makes of vitreous china and enamelled iron in matching sets.—Kohler Co. 
Circle No. 7 on reply card, p. 11

LUXURY BATHROOM SET is pictured in 94-page catalog. Choice of seven colors. Includes porcelain enameled steel recessed tub, features automatic bath and shower diverter and pop-up drain.—Gerber Plumbing Fixtures Corp. 
Circle No. 8 on reply card, p. 11

ONE-CONTROL VALVE for shower and bath to control water temperature and volume is subject of folder. Describes easily replaced cartridge.—Moen Faucet. 
Circle No. 9 on reply card, p. 11

SHOWER STALL enclosures are featured in four-page folder which outlines specifications. Choice of hammered frosted or Pralite glass.—Theodore Efron Mfg. Co. 
Circle No. 10 on reply card, p. 11

CONSTRUCTION SEALERS designed to meet the demands of modern design are offered in a four-page illustrated catalog. Properties and functions of epoxy alloys are explained.—Cost Pro-Seal & Mfg. Co. 
Circle No. 11 on reply card, p. 11

EPOXY PRODUCTS are described in general information pamphlet. Designed for sealing, filling, joining, repairing, surface coating, bonding and topping of concrete, asphalt, masonry and other building materials.—Permagite Corp. of America. 
Circle No. 12 on reply card, p. 11

Concrete forms & equipment

ALL-FUEL CHIMNEY is described in illustrated, fold-out brochure. Details are given on the principle and construction of chimney. Included are illustrations, a chart of model combinations, and cut-away diagrams.—General Products Co., Inc. 
Circle No. 22 on reply card, p. 11

CONCRETE FORMS, ties and hundreds of concrete accessories are contained in this descriptive catalog. Many illustrations, specifications.—Universal Form Clamp Co. 
Circle No. 32 on reply card, p. 11

CONCRETE FORMS, ties and hundreds of concrete accessories are contained in this descriptive catalog. Many illustrations, specifications.—Universal Form Clamp Co. 
Circle No. 31 on reply card, p. 11

STEEL FORMS for concrete construction are pictured in 12-page catalog. Various form setups for curved and tapered walls, floor inlets, gas and oil tanks, and simple walls are shown. Lists accessories, tools, supplies.—Econom Form Sys. Inc. 
Circle No. 30 on reply card, p. 11

Doors

Door chimes

DOOR CHIMES are subject of two-page sheet which shows them mounted both horizontally and vertically. Complete with transformer, pushbuttons, cap ready to plug into receptacle. Available in ivory, pearl white, sandstone.—Cable Electric Products, Inc. 
Circle No. 33 on reply card, p. 11
DOOR CHIMES are one of many electrical built-ins shown and described in 72-page, full-color ket catalog. Has complete data, installation diagrams on hood-fan, door chimes, intercoms, stereo-intercoms. Covers sizes to fit almost any residential or commercial door.—Frantz Mfg. Co.

Circle No. 45 on reply card, p. 11

DOOR FOLDING for tub or shower is described and illustrated. Gives simple three-stallation steps. Lists sizes for both functions and gives specifications. Folds into compact, low-storage space.—Showerfold Door Co.

Circle No. 46 on reply card, p. 11

FOLDING DOORS and room dividers in a variety of styles and colors are illustrated in catalog sheet. Construction features and installation details.—Clapoy Corp.

Circle No. 47 on reply card, p. 11

FOLDING DOOR UNITS which give full access are described in four-page color catalog. Advantages are listed, along with wide range of applications in home.—Ready Hung Door Corp.

Circle No. 48 on reply card, p. 11

FOLDING WOOD DOORS and panels are illustrated in page booklet which shows colors of different woods offered.—Panellift Doors, Inc.

Circle No. 49 on reply card, p. 11

WOOD PANEL folding doors, designed to combine natural beauty of wood with convenience of lightweight construction.—Consolidated General Products.

Circle No. 50 on reply card, p. 11

Doors, garage

GARAGE DOORS, overhead type, are offered in this 16-page booklet. In addition to easy opening, the doors are weathertight.—Barber-Colman.

Circle No. 51 on reply card, p. 11

GARAGE DOORS of steel and wood for residential and commercial installations are presented in eight-page brochure. Three styles are stressed.—Birry Door.

Circle No. 52 on reply card, p. 11

GARAGE PLAN booklet shows how overhead doors can be used with other elements of garage for maximum beauty, utility. Design kits are available.—Crawford Door Co.

Circle No. 53 on reply card, p. 11

LARGE SELECTION of flush, sectional overhead doors are illustrated in four-page folder. Wide variety of designs aid builder in blending garage area into front elevation.—Graham Industries, Inc.

Circle No. 54 on reply card, p. 11

OVERHEAD DOORS for residential garages are illustrated and detailed in eight-page catalog. Shows styles and designs. Radio-controlled automatic door operator is also described.—Overhead Door Corp.

Circle No. 55 on reply card, p. 11

OVERHEAD SECTIONAL garage doors are pictured in four-page brochure. Designed to "float" on factory lubricated bearings. Specifications and headroom requirements are included.—Culver Mfg. Co.

Circle No. 56 on reply card, p. 11

SECTONAL, ONE-PIECE garage doors are described in 28-page catalog. Includes over 100 standard and models. Covers sizes to fit almost any residential or commercial door.—Frantz Mfg. Co.

Circle No. 57 on reply card, p. 11

SLIDING GARAGE DOORS for electronic door operators are pictured in three-sheet folder. Broader range of designs include decorative carved panels. Stress is on quality construction.—Raynor Mfg. Co.

Circle No. 58 on reply card, p. 11

Doors, sliding glass

ALUMINUM SLIDING glass doors are pictured in 12-page brochure. Can be custom fabricated for large projects. Specifications are included, along with selection chart and details.—Arcadia Metal Products.

Circle No. 59 on reply card, p. 11

ALUMINUM SLIDING glass doors are presented in an eight-page booklet stressing quality, specifications and details are given for variety of models.—Sun Valley Industries, Inc.

Circle No. 60 on reply card, p. 11

WOOD SLIDING glass doors with steel-reinforced panels are illustrated, described in eight-page color catalog. Presents details of many door features. Gives advantages of each and specifications.—Rolscreen Co.

Circle No. 61 on reply card, p. 11

Earthmoving equipment & accessories

BACKHOE APPLICATIONS are examined in four-page catalog. Also outlines advantages of model featured. Separate sheet lists complete specifications.—Young Spring & Wire Corp.

Circle No. 62 on reply card, p. 11

BACKHOE LINE is covered in photos, diagrams and text of four-page folder. Specifications and digging ranges are included. Special buckets and booms are shown in detail. Work ranges are described.—Schield Bantam Co.

Circle No. 63 on reply card, p. 11

DITCHER-TERRACING blades are illustrated in four-page bulletin. Lists advantages of each. Specifications included.—Servis Equipment Co.

Circle No. 64 on reply card, p. 11

HEAVY-DUTY LOADER is shown in action in this 12-page brochure. Uses and method of operation are shown. Specifications table provides data on bucket, capacities, other features.—Caterpillar Tractor.

Circle No. 65 on reply card, p. 11

TILDER-RAKE is illustrated in folder showing various operations. Machine scarifies, levels and drains, all in one operation.—Roseman Tractor Equipment.

Circle No. 66 on reply card, p. 11

TRACTOR featuring four-wheel drive and steering takes wide variety of attachments. Colorfully portrayed in four-page, illustrated brochure.—Norton.

Circle No. 67 on reply card, p. 11

TRACTOR-COMPRESSOR has many uses in building and maintenance. Twelve-page booklet lists capacities, gives dimensions for variety of attachments.—Westinghouse Air Brake.

Circle No. 68 on reply card, p. 11

TRACTOR SHOVEL with 9,000-lb. capacity is pictured in colorful, 16-page brochure. Index permits quick reference to main features and work phases.—J. J. Case Co.

Circle No. 69 on reply card, p. 11

TRACTOR SHOVELS are described in compact folder which gives photos and specs for each model. Complete line of attachments.—Frank G. Hough.

Circle No. 70 on reply card, p. 11

TRENCHERS are illustrated in this colorful brochure. Specifications and capacities are given in detail for machines from 7 to 30 horse power.—Witch Marketing Co.

Circle No. 71 on reply card, p. 11

Fans, louvers, vents

ACCURATE rating system for exhaust fans now available in home ventilating guide. Fan labeling gives number of square feet, for each type of fan, that a particular fan will ventilate.—Home Ventilating Institute.

Circle No. 72 on reply card, p. 11

ATTIC FANS and ventilating equipment are covered in this catalog. Also gives data on gas-fired furnaces for three, four and five-ton condensing units.—Bar-Brook Mfg. Co., Inc.

Circle No. 73 on reply card, p. 11

ATTIC FANS are described and illustrated in 12-page booklet. Also includes index of manufacturers and how to select correct size fan for a house. Installation instructions are included for Niteair special fan.—Lau Blower Co.

Circle No. 75 on reply card, p. 11

ATTIC VENTILATOR, available in aluminum or galvanized steel, is depicted in small handbook on ventilation. Discusses many aspects of ventilation.—Leigh Building Products.

Circle No. 76 on reply card, p. 11

BATHROOM FAN, combined with heater and light. Illustrated sheet shows how polished, all-chrome grille permits free flow or air and heat. Adjustable brackets allow placement variation.—Ventrola Mfg. Co.

Circle No. 77 on reply card, p. 11

EXHAUST FANS, contour roof type, are described. Contains dimension table, capacity table, construction details and specifications and details of installation.—Dunlap Fan.

Circle No. 78 on reply card, p. 11

AMERICAN BUILDER
FENCES & gates

CHAIN LINK FENCE is sub- ject of four-page folder. Drawings show framework, fence and gate fittings, and typical erected fence section with all components required to install.—Robertson Steel & Iron Co.

Circle No. 90 on reply card, p. 11

STEEL FARM GATES are covered in descriptive catalog. Includes material on structural, ga- te guard gates, steel fence braces, and picnic table iron sets. —Baumgardner Gate Factory, Inc.

Circle No. 91 on reply card, p. 11

Framing, steel

INTERLOCKING steel framing details are given in 48-page booklet. Contains complete analysis of structural system.—Mascomber, Inc.

Circle No. 104 on reply card, p. 11

JOIST BRIDGING is subject of folder which outlines merits of the "Flash Bridge." Can be in- stallled after the floor is laid.—Flash Bridge Co.

Circle No. 105 on reply card, p. 11

JOIST HANGERS made of rust-resistant, galvanized steel. Folder demonstrates how they eliminate need for notching sub-flooring or beams.—F. D. Kees Mfg. Co.

Circle No. 106 on reply card, p. 11

OPEN WEB steel joists, L and S series, are fully described in 48-page catalog. Features many load design tables, installation details and photos. Index covers many phases, facilitates location of spec- tral subjects in excellently or- ganized literature.—Sheffield Div. Armco Steel Corp.

Circle No. 107 on reply card, p. 11

Framing, structural lumber

COMPONENT PARTS, cut to order, are subject of four-page folder. Contains pre-cut parts including roof trusses, cut plywood, wall panels, framing units, rafters and joists.—Wood Components.

Circle No. 110 on reply card, p. 11

FOUR-LEAF FOLiING, complete with its own chimney. Described in brochure with color photographs. Can be painted any color.—Vega Industries, Inc.

Circle No. 97 on reply card, p. 11

Flooring

FLOOR PATTERNS, 45 different kints, are picture in 10-page, full-color design bro- cture. Shows how vinyl asbestos tile can be used both as illustra- ted and for original floor creations.—Johns-Manville.

Circle No. 98 on reply card, p. 11

FLOOR UNDERLAMINATION for tile, linoleum or carpeting. Four-page brochure details correct application methods from start to finish.—Weyerhaeuser Co.

Circle No. 99 on reply card, p. 11

RANCH PLANK FLOORING is described in full-color, 16- page booklet. Flooring is ready- packaged, factory finished, Will attend combine with eased edges.—E. L. Bruce Co.

Circle No. 100 on reply card, p. 11

RESILIENT FLOORS are covered in 46-page, wire-bound booklet. Details vital factors in selection of floor and wall cover- ings. Includes technical data on preparation of underlings.—Covinam-Nairi Inc.

Circle No. 101 on reply card, p. 11

SUBFLOOR and underlayment combination, made from 2-4-1 plywood, is covered in illust- rated folder. Features extra- thick veneers and moisture-re- sistant glue lines. Available in 4x8 panels.—Georgia-Pacific.

Circle No. 102 on reply card, p. 11

VINYL AND RUBBER flooring folder contains hundreds of color and design patterns. De- tailed information and mainten ance data appears.—American Bitlrite Rubber Co.

Circle No. 103 on reply card, p. 11

Garage door operators

DOOR OPERATOR is shown in small folder illustrating ad- vantages. Automatically opens, closes and locks garage door.—A. E. Moore Co., Inc.

Circle No. 114 on reply card, p. 11

GARAGE DOOR OPERATOR features an all-transistor design. Features automatic aligning and locking mechanism. Installation includes auto and garage.—General Motors Corp.

Circle No. 115 on reply card, p. 11

TWO BASIC TYPES of garage door operators are discussed in this eight-page catalog. Installation details are clearly presented.—Allen Prod. Co.

Circle No. 116 on reply card, p. 11

Garbage disposers

DISPOSER for garbage is illus- trated with page from four- page folder. Advantages and op- erations of all features are clearly shown.—National Rubber Machinery Co.

Circle No. 117 on reply card, p. 11

OUTDOOR GAS LIGHTS and related accessories are illustrated in eight-page color catalog. Shows complete line including models designed for multiple installation.—Arkla Air Conditioning Corp.

Circle No. 120 on reply card, p. 11

Gas ranges

BUILT-IN GAS RANGE in a variety of decorative styles are in four-page folder. Sugg- ested installation is given. Optional top burner control regulates cooking temperatures automatically.—Hardwick Stove.

Circle No. 121 on reply card, p. 11

BUILT-IN GAS RANGE with nearly 10,000 cubic inches of cooking space is shown in four- page folder. Occupies only 24" of wall space.—Samuel Stamping & Enameling Co.

Circle No. 122 on reply card, p. 11

COOKING TOP, electric built- in type, is illustrated in full- color brochure. Equipped with seven-stage, fast-heating surface elements.—Haven- busch Co.

Circle No. 123 on reply card, p. 11

PRESSURE-TREATED lumber is covered in 16-page booklet. Emphasis and appearance is emphasized. Photos illustrate broad range of applications.—Koppers Co., Inc.

Circle No. 113 on reply card, p. 11

LONGSPAN JOISTS are illus- trated in this 20-page brochure. Calls attention to advantages of one-piece fabrication.—Thermador Electrical Mfg.

Circle No. 111 on reply card, p. 11

LAMINATED WOOD as a structural material is promoted in 20-page, illustrated booklet. Covers engineering and design requirements for radial arches, beams, purlins.—Riko Laminated Products Co.

Circle No. 112 on reply card, p. 11

LONGSPAN JOISTS are illus- trated in this 20-page brochure. Calls attention to advantages of one-piece fabrication.—Haven- busch Co.

Circle No. 113 on reply card, p. 11

GARAGE DISPOSER is subject of four-page brochure with pictures of all features automatic aligning and locking mechanism. Includes con- tinuous feed operation.—In-Sink- erator Mfg. Co.

Circle No. 118 on reply card, p. 11

GAS LAMPS GAS LAMP diagramed in folder features base of spun aluminum, enamal finish with fixture for globe. Comes in complete unit with 7/8" steel post.—Craftsman Copper Co., Inc.

Circle No. 119 on reply card, p. 11

OUTDOOR GAS LIGHTS and related accessories are illustrated in eight-page color catalog. Shows complete line including models designed for multiple installation.—Arkla Air Conditioning Corp.

Circle No. 120 on reply card, p. 11
Generators, portable

PORTABLE electric plants and how to select them are discussed in four-page folder. Points out features that make for better performance, less maintenance.—Onan, Studebaker-Packard.

Circle No. 125 on reply card, p. 11

TWO LINES of generators are fully covered in well-illustrated, 12-page catalog. Gives full description, instructions for selecting a generating plant.—Pioneer Gen.-E-Motor Corp.

Circle No. 126 on reply card, p. 11

Grillework

ALUMINUM GRILLEWORK is described in an eight-page brochure. Discusses non-modular grillework as means of light and temperature control. Also shows use as ornamentation.—Integrated Ceilings & Grilleworks, Inc.

Circle No. 127 on reply card, p. 11

ORNAMENTAL METALWORK catalog is intended to facilitate selection. Contains scale drawings of suggested designs, includes full color iron castings.—Julius Blum.

Circle No. 128 on reply card, p. 11

Hardware, door, drawer & cabinet

CABINET HARDWARE and accesories for every room in the house are colorfully pictured in 16-page catalog. Covers drawer slides, window hardware, disappPEARING SHELF HARDWARE, revolving shelf hardware.—Amerock Corp.

Circle No. 129 on reply card, p. 11

DOOR HARDWARE, with emphasis on locksets, are subject of 12-page brochure. Many illustrations in color.—Western Lock Mfg. Co.

Circle No. 130 on reply card, p. 11

DOOR HARDWARE is colorfully illustrated in this catalog. Contains data on exit devices, door closers, mortise lock and hand sets.—Sargent & Co.

Circle No. 131 on reply card, p. 11

DOOR HARDWARE, with emphasis on locksets, are subject of 12-page brochure. Many illustrations in color.—Western Lock Mfg. Co.

Circle No. 133 on reply card, p. 11

FASCIA TRACK SET with two or three doors is designed for sliding door. Shown in four-page brochure illustrating method of installation.—John Sterling Corp.

Circle No. 134 on reply card, p. 11

FOLDING AND SLIDING door hardware are among many covered in 28-page catalog. Given detailed descriptions, prices on list.—Leigh Building Products.

Circle No. 135 on reply card, p. 11

REFRIGERATION equipment for conditioning reference charts lists more than 1,100 products. Also includes 156 a/c products for air conditioning. Features and specifying data.—Mueller Climate Div.

Circle No. 159 on reply card, p. 11

WINTER HEATING and summer cooling equipment are main subject of each piece of equipment has accompanying photo, description and specifying data.—Mueller Climate Div.

Circle No. 160 on reply card, p. 11

WINTER AIR CONDITIONER illustrated in full color, six-page brochure. Features concrete slab or crawl space foundation. Described in thick catalog with specifications.—Edwards Engineering.

Circle No. 162 on reply card, p. 11

ZONED HYDRONIC and electric heating and cooling equipment. Covered in 12-page catalog giving descriptive, technical data and installation suggestions.—Edwards Engineering.

Circle No. 164 on reply card, p. 11

Heating systems

BASEBOARD HEATING and accessories are subject of four-page brochure for builder and remodeler.—Rittel Corp.

Circle No. 165 on reply card, p. 11

ELECTRIC HEATING equipment described in full color, six-page brochure. Features concrete slab or crawl space foundation. Described in thick catalog with specifications.—Edwards Engineering.

Circle No. 166 on reply card, p. 11

GAS-FIRED winter air conditioner, designed for homes with oil or gas heat, is completely assembled and wired. Can be installed under concrete slab or crawl space foundation. Described in thick catalog with specifications.—Edwards Engineering.

Circle No. 167 on reply card, p. 11

HEAT PUMP is described and method of installation shown in six-page brochure. Available in two-ton capacities and up for residential, commercial use.—Perfection Div., Hupp Corp.

Circle No. 168 on reply card, p. 11

HOT WATER HEAT system without plumbing is explained in four-page brochure. Electric baseboard heat is installed in floor model. Units are built into walls of all homes.—International Oil Burner Co.

Circle No. 169 on reply card, p. 11

OIL BURNER combines control of turbulence with amount of air admitted. Casaling sheet explains how fingertip micrometer and pressure gauge make installation easy. Complete brochure covers furnaces and summer air conditioning equipment.—Armstrong Furnace Co.

Circle No. 170 on reply card, p. 11

AMERICAN BUILDER
OIL FURNACE featuring clean oil flame is explained in a four-page folder. Designed to result in substantial fuel savings, eliminate almost all service calls. —Iron Fireman Mfg. Co.

ROTOR BURNERS are described in a folder. Fully automatic, metering pump unit fires on oil only, gas only or combination gas and oil. —T. Johnson Co.

INCENTRATORS ELECTRIC INCINERATOR for basement, utility room or garage. Folder describes performance, gives specifications. Capacity: 1.5 bushels. —Calcinator Corp.

SMALL INCINERATOR, designed to blend with modern home layouts described in 16-page brochure. Two-burner unit is refractory lined, stays cool on outside. Features automatically controlling gas system. —Brute Incinerators.

INSTRUMENTS, SURVEYING COMPLETE LINE of instruments, tripods and accessories are available. Level-transits are available in a wide range of prices and models. —David D. Scott, Inc.

SURVEYING INSTRUMENTS are thoroughly covered in well-organized literature. Engineering supplies, field equipment and drafting supplies are completely illustrated. —Warren-Knight Co.

INSULATION BUILDING INSULATION is summarized in 42-page brochure. Filled with data for architects, engineers, students, builders and buyers. —Insulation Board Institute.

FOAMED PRODUCTS, for use in insulation, are offered in this 16-page brochure. Many tables, photos and details appear. —Dow Chemical Co.

INSULATING GLASS for windows and window walls is subject of semi-technical folder. Gives product characteristics, standard units and limitations. —Libey-Owens-Ford Glass Co.

INSULATION GUIDE for electric heating is subject of 16-page brochure. Heavily illustrated and detailed. Reflects the “R Factor” information developed by Insulation Research, Inc., and the National Assn. of Electric Heating Contractors. —National Gypsum Co.

NAIL-BASE SHEATHING of high density is featured in this 12-page booklet. Among advantages cited are strength, low thermal conductivity, high resistance, dimensional stability and vapor permeability. —Breksett Div., Allied Chemical Corp.

POLYSTYRENE FOAM is subject of illustrated folder which puts up the wide range of insulation applications. —Gilman Bros. Co.

THERMAL INSULATION products in two basic liner types are covered in concise folder. Chart presents specifications in easy-to-read form. —Wood Conversion Co.

INTERCOMS INTERCOM and sound system brochure features wiring and technical information. Fully transistorized system includes FM-AM radio, electronic door chime. —Kittenhouse Co.

INTERCOM SYSTEM is described in four-page brochure. Seven-station master unit comes equipped with outlet for electrical appliance plug-in and jack for piping in music. —Roberts Mfg. Co.


INTERCOM SYSTEMS are described in this literature. Special section for intercom, call and music systems for medical buildings. Also covers radio for motels. —Flush Wall Radio Co.

TRANSFORMERIZED voice frequency amplifiers are described in four-pages. Operational advantages are discussed as well as applications. —Lynch Communication Systems Inc.

LIGHTING FIXTURES described and illustrated in thick catalog. Hundreds of fixtures in all sizes, shapes and styles appear in color. —Jay Lighting.

LIGHTING FIXTURES are shown alongside great paintings which inspired customized designs. Descriptions and specs in chart form. —Progress Mfg. Co.

PACKAGED luminous ceiling that provides wall-to-wall light source is outlined. Outstands advantages, suggested uses and installation ideas. —Artcrust Products Co. Inc.

KITCHEN NOOKS are covered in colorful literature. Space-saving seating, available in Contemporary, Traditional and American styles, is illustrated. —Dornalux Co. Inc.

KITCHEN CABINET SET of solid birch stable core door and drawer fronts. Interiors complete as finished. —Connor lumber & Land Co.

WALL CABINETS for kitchens, made from red birch, are featured in four-page color brochure. Finished both outside and inside, with semi-concealed hinges. —Kitchen Kompact.

LIGHTS TRUCKS are described in condensed catalog. Covers complete line of gas-powered trucks. —Hyster Co.

PORTABLE HOISTS, featuring hydraulic erection by one man in one minute, is covered in this brochure. Designed to sweep up 3000 lbs. load at 150 ft. per min. —Tabulrax Specialties Corp. of America.

METAL LATH and furring catalog outlines basic design criteria for lathing of hollow and solid partitions. Also ceilings, furring, stucco, plaster reinforcements. —Metal Lath Mfrs. Assn.

METAL LATH and furring catalog outlines basic design criteria for lathing of hollow and solid partitions. Also ceilings, furring, stucco, plaster reinforcements. —Metal Lath Mfrs. Assn.

STEEL PLASTER GROUNDS, including casing and corner beads, regular and expanded beads presented in four-page. Includes simple details and specifications. —Casings, Inc.

OVENS BUILT-IN GAS and electric ovens are colorfully illustrated. Folder gives brief specifications on all models. Also covers ranges, dishwashers, ventilators and disposers. —Chambers Built-Ins.

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CUSTOM BUILT-IN oven is subject of four-page folder. Clock-controlled unit has oven signal light, one-hour electric timer, control panel lighting. —Magic Chef.

BUILT-IN OVENS and tops are featured in colorful folder. Appliances come in six shades. Discusses 14 oven models, 17 drop-in top units.—Tappan Co.

DOUBLE ELECTRIC OVEN, built-in, with both ovens for bake or broil. Shown in four-page color folder with dimensions.—Gray & Dudley.

WOOD STAINS, for exterior and interior use, pictured in compact, full-color folder. Covers 48 stains in all—Olympic Stained Products Co.

HARDWOOD PANELING, prefinished, is colorfully shown in four-page folder. Gives applications, installation suggestions.—Southwood Corp.

DECORATIVE PLYWOOD is subject of four-page folder. Covers factory-issued hardwood, softwood, textured and imported plywood of various types.—Georgia-Pacific Corp.

PLANNING

BASEMENT PRE-PLANNING booklet features practical, flexible basement plans. Profusely illustrated. Tells how to plan light, ventilation, etc.—Bilco Co.

KITCHEN IDEA BOOKLET discusses "how to plan a trend setting kitchen" in 24 color pages. Full of photos on outstanding kitchens throughout the country.—Reveo, Inc.

PLUMBING, water supply

COPPER PIPE and tube products for plumbing, heating and air conditioning are described here. Thick manual contains many tables.—Anaconda American Brass Co.

SEWAGE TREATMENT plant for small subdivisions is described along with its advantages in all phases of protection and preserving wood.—Dur-O-Wal.

WRAPAROUND BOXES are explained in six-page brochure. Stress is on reinforcement and true alignment that installation of products contributes in drywall construction.—Beadex Sales Inc.

MASONRY WALL reinforcement device features patented design that increases wall strength. Technically described in four-page folder. Data on self-sealing neoprene rapid control joint is also included.—Dura-O-Wal.

MORTAR JOINT reinforcement is subject of this four-page folder. Drawings show various applications.—Clayton Mark.
Asbestos cement structural sheet that bends over obstructions and around corners is described in four-pager.—Keasbey & Mattison Co.

Aluminum gutter system is described in six-page folder which gives installation methods.—Aluminum Co.

Roofing & accessories

Plastic roofing system designed for roofs with unusual contours. General specifications are included for roof coating on concrete as well as coating on plywood.—Caram Mfg. Co.

Precast concrete roof and floor channels are covered in four-page catalog. Charts show allowable superimposed loads in pounds/sq. ft.—George Rackle & Sons Co.

Roof systems are described in fact-packed, eight-page catalog. Gives detailed data on lightweight roof decks and roof insulation.—Midland Plastics Co.

Vermiculite concrete roof insulation is subject of three technical sheets. Two give data and short form specifications for the 1:6 and 1:8 mix. Third presents load tables.—Vermiculite Institute.

Wide range of products is covered in this eight-page catalog. Charts show allowable superimposed loads on concrete floor zigzag pattern—Follansbee Steel Corp.

Concrete roof and floor channels are covered in four-page catalog. Charts show allowable superimposed loads on concrete floor zigzag pattern.—Follansbee Steel Corp.

Terne roofing is subject of eight-page booklet with many detailed plans and specifications. Advantages of terne are listed together with physical specifications.—Follansbee Steel Corp.

Vermiculite concrete roof and floor channels are covered in three technical sheets. Two give data and short form specifications for the 1:6 and 1:8 mix. Third presents load tables.—Vermiculite Institute.

Cedar shake siding is discussed in full-color folder. Gives merits of prefinished, Technical data and selection of materials are separate sheet.—Shake-Ply Co.

Sinks

Sinks and counter made from stainless steel. Four-page brochure shows entire top-front, range, deck surface and backsplash—formed from one metal sheet.—Just Mfg. Co.

Stainless steel sink is subject of four-page, illustrated brochure. Priced with precision-formed bottom and special rim which interlocks with counter.—Aronco Mfg. Corp.

Siding

Aluminum siding, horizontal and vertical, is shown in four-page folder. Installation details facilitate working with product.—Keystone Alloys.

Aluminum siding brochure shows typical installations. Four-color booklet also presents details of construction, shows six colors available.—Season-All.

Bevel siding is one of many lumber products depicted in 20-page booklet. Available in Western Red Cedar, Sitka Spruce, White Fir, Douglas Fir and West Coast Hemlock.—W. R. Grace & Co.

Clapboard siding of aluminum is presented in well-organized pamphlet. Accessories and application of the siding are illustrated.—Luf-Allum, Inc.

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Siding, offered in a wide range of styles, is depicted in four-color, eight-page book.—Masonite Corp.

Siding bulletin discusses paint-covered redwood siding. Cost-savings are detailed.—Pacific Lumber Co.

Tools, cutting

Chain saws are pictured and described in this 35-page catalog. Contains specification tables, covers.—J. M. Wilkins & Co.

Remington Arms Co., Inc.

Tile, floor, wall & ceiling

Ceramic tile is thoroughly examined in thick catalog. Illustrates complete color line of glazed, unglazed and quarry tile. Specifying material gives types, descriptions and uses.—American Olean Tile Co.

Ceramic tile workbook (40 pages) describes, illustrates glazed, wall tile, unglazed and glazed ceramic mosaic, quarry tile and bathroom accessories.—Mosaic Tile Co.

Ceramic tile merchandising program is subject of large brochure. Many photos show how program has worked in past.—Styron Corp.

Clay roofing tiles are subject of this catalog. Gives many patterns, textures, colors.—Ludowici-Celadon Co.

Cork tile and other flooring products are covered in small book. Three-dimensional, easy-to-read color section offers advantages of some of the patterns available.—Dodge Cork.

Floor and wall tile folder colorfully presents three lines of ceramic tile with names and descriptions. Features many patterns and colors with names.—Pomona Tile.

Resilient floor tile made from vinyl asbestos. Eight-page, illustrated booklet shows colors and patterns. Features dense, closely textured surface. Architectural specifications are included.—Arroco Floor Products.

Terrazzo and mosaic kit contains data and specifications for architectural floor finish. Includes details on many other uses of terrazzo.—National Terrazzo & Mosaic Assn.

Vinyl floor and wall tile for residential and commercial use is subject of eight-page catalog.—Vinyl Plastics Inc.

Wall tile design is featured in five-color folder. Shows 414 by 414 wall tile in complementing colors.—Wheeling.

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FLOOR TILE cushioned in a rubber grid is discussed in colorful four-page folder. Advantages of flooring are described, and 12 patterns are shown.—United States Ceramic Tile Co.

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DIAMOND BLADE for cutting masonry material and sawing concrete and asphalt. Four-page folder tells how to install, how to use.—Eveready Briksaw Co.

Circle No. 310 on reply card, p. 11

MASONRY SAWS, blades are emphasized in a four-page catalog. Stresses advantages of being able to position cutting head without turning off the motor.—Clipper Mfg. Co.

Circle No. 311 on reply card, p. 11

NEW IDEAS for cutting and handling building materials are illustrated in 20-page catalog.—DeWalt, Inc.

Circle No. 312 on reply card, p. 11

PORTABLE masonry saw is featured in brochure on masonry cutting saws. Lightweight tool performs a variety of jobs. Features and advantages are listed and illustrated.—Eveready Briksaw Co.

Circle No. 313 on reply card, p. 11

TRIMMER for small cutting jobs is covered in bulletin showing basic cuts. Designed to fit trimmer around windows and doors, to cut in baseboards. Requires no electrical power.—Fastener Corp.

Circle No. 314 on reply card, p. 11

Tools, fastening

AUTOMATIC NAILERS are illustrated in 16-page catalog. Fasteners from 9/64 to 2" long and others to 100 are shown.—Spotnails, Inc.

Circle No. 315 on reply card, p. 11

STAPLING EQUIPMENT is fully described in 8-page manual. Complete line covers hand-operated and air-driven equipment.—Fastener Corp.

Circle No. 316 on reply card, p. 11

STUD DRIVER used in fastening to concrete and steel. Eight-page brochure describes variety of applications.—Gregory Industries, Inc.

Circle No. 317 on reply card, p. 11

Tools, masonry, plaster & drywall

DRIWWALL finishing unit is presented in illustrated full specifications. Emphasis is placed on decorative finishing and texturing.—Glover Mfg.

Circle No. 318 on reply card, p. 11

EQUIPMENT LINE for contractors is concisely covered in bulletin. Describes and pictures power trowel, power tamper, power buggy.—Kelley Machine.

Circle No. 319 on reply card, p. 11

TOOLS AND EQUIPMENT for the trowel trades is described in 64-page catalog. This includes cement finishing, ceramic tile, plaster, tile and lath.—Goldblatt Tool Corp.

Circle No. 320 on reply card, p. 11

Tools, metalworking

METAL CUTTING SHEAR, illustrated in four-page folder, has a 12" throat to control speed. Automatic start-stop latch prevents runaway in handle.—Stanley Electric.

Circle No. 321 on reply card, p. 11

METALWORKING TOOL catalog covers entire line of punches, brakes, shears and machines for metal, sheet metal. Contains many photos and specification charts.—Whitney Metal.

Circle No. 322 on reply card, p. 11

Tools, power

HEAVY-DUTY electric tools are pictured in 12-page brochure. Specifications in chart form are given for saws and polishers, portable and bench-type grinders, and gas-driven generator sets.—Milwaukee Electric.

Circle No. 323 on reply card, p. 11

PORTABLE POWER tools are given full descriptions, specifications in this catalog. Covers drills, circular saws, saber saw, trimmer.—American Power.

Circle No. 324 on reply card, p. 11

PORTABLE air-powered and electric tools are fully covered in 72-page catalog. Sections on drilling, fastening, special tools, accessories.—Buckeye Tools Corp.

Circle No. 325 on reply card, p. 11

POWER TOOLS are fully presented in colorful, 88-page catalog. Complete line includes circular saws, joiners, bands, radial saws, sanders.—Rockwell Mfg. Co.

Circle No. 326 on reply card, p. 11

POWER TOOLS, portable electric and pneumatic, are covered in 69-page catalog. Contains descriptions, illustrations and detailed specs of complete line.—Skill Corp.

Circle No. 327 on reply card, p. 11

Tools, woodworking

MULTI-POSITION VISES are described in large brochure. All varieties are shown and described.—Versa-Vise.

Circle No. 328 on reply card, p. 11

WOODWORKING power tools are subject of descriptive catalog. Covers circular saws, joiners, drill presses, sanders, and band saws.—Atlas Press Co.

Circle No. 329 on reply card, p. 11

WOODWORKING power tools for on-the-site and in the shop. Literature covers table saws, joiners, planers, shapers, sanders, bands, drill presses and mortiser.—Boice-Crane Co.

Circle No. 330 on reply card, p. 11

Trucks

DIESEL TRUCK line is illustrated in full-color, six-page brochure containing specifications. Describes six diesel engines available.—Diamond T Motor Truck Co.

Circle No. 331 on reply card, p. 11

TRUCKS shown in well-illustrated, full-color folder. Small model said to make more than 30 miles per gallon. Features bolt-on front fenders, has 800-lb. capacity.—Ford Motor.

Circle No. 332 on reply card, p. 11

TRUCKS are described fully in this colorful brochure, with technical data and specifications. Types covered include pickup, single-gang pickup, panel and station wagon.—Volkswagen.

Circle No. 333 on reply card, p. 11

VERSATILITY of aluminum windows is demonstrated in specification sheets. Tear-off features, material and dimensions, screen dimensions, etc. included.—W. M. Products Co.

Circle No. 346 on reply card, p. 11

WINDOW LINES featuring interchangeable design frames is presented in six-page brochure with details.—Curtille.

Circle No. 347 on reply card, p. 11

WOOD AWNING and casement windows are featured in 16-page catalog. Well-organized literature contains construction details.—Fred Reuten, Inc.

Circle No. 348 on reply card, p. 11

Window accessories

ALUMINUM AWNINGS for the window and patio are colorfully illustrated in eight-page folder.—Hunter Douglas Div.

Circle No. 349 on reply card, p. 11

Woodworking

WEATHERPROOFING SYSTEM involving both corrective and protective treatments for masonry is explained in excellently organized, 20-page guide.—Standard Dry Wall Products.

Circle No. 334 on reply card, p. 11

WEATHERPROOFED COATING for concrete and masonry is described in four-page folder. Contains illustrations of weatherproofed buildings.—Western Weatherproofing Co.

Circle No. 335 on reply card, p. 11

Windows

ALUMINUM WINDOWS in 22 styles are presented in colorful 28-page catalog.—Southern Sash.

Circle No. 340 on reply card, p. 11

AWNING WINDOWS are main subject of 28-page catalog. Residential, commercial and institutional windows are covered here.—Ware Laboratories, Inc.

Circle No. 341 on reply card, p. 11

CASMENT WOOD window units are described in an eight-page folder which outlines basic units and combinations available.—Malta Mfg. Co.

Circle No. 342 on reply card, p. 11

CIRCUT BREAKER devices are featured in thick guide designed to speed ordering. Includes safety switches, service equipment, distribution panels.—Wadsworth Electric.

Circle No. 353 on reply card, p. 11

COMPLETE LINE of 1,500 electrical wiring devices are described in 84-page catalog. All products are illustrated in categories and cross-indexed.—Eagle Electric Mfg. Co.

Circle No. 354 on reply card, p. 11

MULTI-OUTLET assemblies and lighting equipment are among subjects covered in 152-page catalog and wiring guide. Includes sections on National Electric Code.—Wiremold Corp.

Circle No. 355 on reply card, p. 11

WIRING DEVICES (abridged edition) catalog gives complete listing of over 600 items.—Leviton Mfg. Co., Inc.

Circle No. 356 on reply card, p. 11

WIRING DEVICES and wall plates are examined in 144-page reference manual. Indexed into 11 categories and diecuts.—Marvin Mfg. Co.

Circle No. 357 on reply card, p. 11

PRODUCTION, erection and transportation of factory-completed "Starlighter" house is concisely covered in 35-page bulletin.—Guerdon Industries, Inc.

Circle No. 358 on reply card, p. 11
Manufacturers are listed under 500 product categories which appear in alphabetical order. For the complete name and address of any manufacturer here, turn ahead to Section 3.

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**Access Doors**

*(See Doors, Access)*

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**Acoustical Materials** *(See also Plaster, Acoustical)*

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<td>American-Standard Plumbing &amp; Heating Div</td>
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<td>Frigidaire Div Gen Motor Corp</td>
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<tr>
<td>McQuay Inc</td>
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<tr>
<td>Modine Mfg Co</td>
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<td>Motor Wheel Corp</td>
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<td>Philco Corp</td>
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<td>Remington Air Conditioning Div</td>
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<td>Rybokol Heater Co</td>
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<td>Tuck-Aire Furnace Co</td>
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<td>Benjamin Div Thomae Industries Inc</td>
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<td>Diebold Inc</td>
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<td>Home Music Systems Inc</td>
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<td>Minneapolis-Honeywell Regulator</td>
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<td>Mosler Safe</td>
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<td>Brown Products Co</td>
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Birch Lumber
(See Lumber, Birch)

Bits, Auger
(See Tools, Carpenter, Hand)

Bits, Saw
(See Saws)

Blackboards & Chalkboards
Benjamin Div Thomas Industries Inc
Davidson Enamel Products Inc
Ingram-Richardson Mfg Co
Johns-Manville Corp
Kochton Plywood & Veneer Co Inc
Marsh Wall Products Inc
United States Plywood Corp

Blades, Saw, Circular
Black & Decker Mfg Co
Dallion Mfg Co
Deluxe Saw & Tool Co
Diston Div H K Porter Co
General Hardware Mfg Co Inc
Jones Superior Machine Co
Milwaukee Elec Tool Corp
Porter-Cable Machine Co
Producers & Distributors Inc
Remington Arms Co Inc
Rocco Prod Inc
Rockwell Mfg Delta Power Tool Div
Simonds Saw & Steel Co
Skill Corp
Speedway Mfg Div Thor Power Tool Co
Stone Machinery Co

Blades, Saw, Masonry
Bay State Abrasive Products Co
Black & Decker Mfg Co
Carborundum Co
Clipper Mfg Co
Columbia Brick Works
DeWall Inc
Eveready Brikaw Co
General Engines Co Inc
Goldblatt Tool Co
Milwaukee Elec Tool Corp
Norton Co
Simonds Abrasive Co
Skill Corp
Speedway Mfg Div Thor Power Tool Co
Stone Machinery Co
Thor Power Tool Co
Victor Inc

Blocks, Glass
(See Glass Blocks)

Board, Insulating
(See Insulating Board)

Boilers, Steam & Hot Water
(See Heating Systems, Hot Water & Steam)

Bonding Agents, Plaster & Concrete
Abesto Mfg Co
Allied Chemical Corp Barrett Div
Allied Compositions Co Inc
Anti Hydro Waterproofing Co
Bestwall Gypsum Co
Camp Co Inc
Ceresit Corp
Dacso Co Inc
Dewey & Almy Chemical Div W R Grace & Co
Horn A C Companies
Kay-Tite Co
Larsen Products Corp
Maguire Walter Co Inc
Massey-Ferguson Inc Industrial Div
National Gypsum Co
Nu-Wall Mfg Co
Ohio Lime Co
Penn Crete Products Co
Permamate Corp of America
Ranetite Mfg Co
Sika Chemical Corp
Sonoburn Chemical & Refining Corp
Standard Dry Wall Products Inc
Steelite Manufacturing Co
Sullivan Co The
Temco Industries Co
Tufcrete Mfg Co

A Complete range of styles and sizes

KOHLER or KOHLER
Kohler Co., Kohler, Wis.

Complete range of styles and sizes

KOHLER MANSION

A Complete range of styles and sizes

KOHLER or KOHLER
Kohler Co., Kohler, Wis.

Complete range of styles and sizes

KOHLER MANSION

A Complete range of styles and sizes

KOHLER or KOHLER
Kohler Co., Kohler, Wis.
Brass Pipe
(See Pipe & Tubing, Brass)

Booster Pumps, Heating
(See Pumps, Booster)

Brass Pipe
(See Nooks, Dining)

Brick, Common & Face
Acme Brick Co
Acme Shale Brick Co Inc
Alden Brick Co
Black Hills Clay Products Co
Bowerston Shale Co
Bowersom Pressed Brick Mfg Co
Builders Brick Co
Charleston Clay Prods Co
Chem Brick & Tile Co
City Clay Pipe Co
Columbia Brick Works
Elgin-Standard Brick Mfg Co
Empress Brick Co Inc
Evans Brick Co
General Clay Products Co
Hanley Co
Harrisville Brick Co
Hattiesburg Brick Works
Hope Brick Works
Humboldt Brick & Tile Co
Illinois Brick Co
Interstate Brick Co
Jenkins Brick Co
Kendrick Brick & Tile Co
Mason City Brick & Tile
Metropolitan Brick Inc
Midland Brick & Tile Co
Moorhead Brick & Tile Co
Nateco Corp
Paxton Brick Co
Perria Brick & Tile Co
Robinson Clay Product Co
Rockford Brick & Tile Co
Sacramento Brick Co
Standard Brick & Tile Corp
Summit Pressed Brick & Tile Co
Texas Brick Co
United Brick & Tile Co
Watsonstown Brick Co
West Virginia Brick Co
Yankee Hill Brick Mfg Co

Brick, Fire
Acme Brick Co
Armstrong Cork Co
Builders Brick Co
Columbia Brick Works
Elgin-Standard Brick Mfg Co
Evans Brick Co
Green A P Fire Brick Co
Interstate Brick Co
John-Manville Corp
Kaiser Aluminum & Chemical Corp
Pemona Terra-Cotta Co
Robinson Clay Product Co

Brick Paint
(See Paints & Coatings,
Concrete, Brick, Stucco)

Brick, SCR
Acme Brick Co
Acme Shale Brick Co Inc
Black Hills Clay Products Co
Builders Brick Co
Cherokee Brick & Tile Co
Elgin-Standard Brick Mfg Co
Harriville Brick Co
Humboldt Brick & Tile Co
Illinois Brick Co
Interstate Brick Co
Mason City Brick & Tile
Metropolitan Brick Inc
Nateco Corp
Perria Brick & Tile Co
Rockford Brick & Tile Co
Summit Pressed Brick & Tile Co
United Brick & Tile Co
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<td>Cabot Samuel Inc</td>
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<td>G of J C Co</td>
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<td>Pittsburgh Plate Glass Co</td>
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Clocks, Built-In
Leigh Building Products Div
Miller Howard Clock Co
Minneapolis Honeywell Regulator
Morgan-Wightman Co
R & H Guaranteed Products Co
Swanam Mfg Co
Wisconsin Clock Co Inc

Closet Accessories
Acme Appliance Mfg Co Acme Bldrs
American Steel Door Co
Atkinson Mfg Co
Brown George C & Co Inc
Ekco Products Div Ekco-Autoyeye Div
Gerber Plumbing Fixtures Corp
Gran Pulley & Hardware Corp
H-C Products Co
Kees F D Mfg Co
Kennonlock Corp Sub Ekco Prods
Knap & Vogt Mfg Co
Lawrence Brothers Inc
Leigh Building Products Div
Louer Mfg & Supply
Mackinaw-Duncan Co
Masonic Corp
Mirror Chrome Co Inc
Peerless-Wood Products
Russell & Erwin Div Am Hdwe Corp
Shelby Spring Hinge Co
Stanley Hardware
United Steel Products Co

Closet Linings, Cedar
(See Cedar Lining, Closets)

Closets, Prefabricated
Boise Cascade Corp
Caradco Inc
Evrgreen States Forest Products
Tredrick Bros Mfg Co Inc

Coatings, Concrete Floor
(See Paints & Coatings,
Concrete, Brick, Stucco)

Coatings, Concrete Forms
Arrow Corp of America
Calber Inc
Ceredit Corp
Dipcraft Mfg Co
Johnson's Wax
National Mfg Corp
Flexcrete Corp of America
Re-Nu-Imp Corp
Sherwin-Williams Co
Silicone Div Union Carbide
Sonneborn Chemical & Refining Corp
Sullivan Co
Toch Bros
Tufcrete Co Inc

Coatings, Roof, Aluminum & Asphalt
(See Paints & Coatings, Roof)

Coatings, Wood Treatment
(See Paints & Coatings, Wood Treatment)

Color Consultants
Barreled Sunlight Plant Co
Cook Paint & Varnish Co
Minnesota Paints Inc
Pittsburgh Plate Glass Co
Sherwin-Williams Co
West Beatrice Color Inc

Colors, Concrete & Plaster
Ceredit Corp
Chicago Bronze & Color Works
Clinton Metallic Paint Co
Colorcrete Industries Inc
Ferro Corp Color Div
Flexrock Co
Hadco-McCumber Inc
Horn A C Companies Div Sun Chem Corp
Interstate Brick Co
Landers Segal Color Co
Rockeete Paint Co
Redstoff & Co
Smith J Lee & Co Inc
Sonneborn Chemical & Refining Corp
Sullivan Co
Tammis Industries Co

Compactors
Hydrant Co
Jackson Vibrators Inc
Jay Co Div Leuckart Mach Co Inc
Koehring Co
Magnins Power Tool Co
Master Vibrator Co
Muller Machinery Co Inc
Necine Hydraulics & Machinery Inc
Vibro Plus Inc
Witch Marketing Co

Compounds, Anti-Freeze,
Concrete
Anti Freeze Waterproofing Co
Ceredit Corp
Flexrock Co
Horn A C Companies Div Sun Chem Corp
Kay-Tile Co
Master Builders Co
Ranetite Mfg Co
Plexstone Corp America
Sika Chemical Corp
Sonneborn Chemical & Refining Corp
Sullivan Co
Super Concrete Emulsions
Toch Bros
Truscon Labs Inc

Compounds, Anti-Termite
(See Termite Shields)

Compounds, Concrete
(See Concrete Hardeners & Sealers)

Concrete Admixtures
Carborundum Co
Ceredit Corp
Dasco Co Inc
Dewey & Almy Chemical Div
Horn A C Companies
Johns-Manville Corp
Kay-Tile Co
Massey-Ferguson Inc Indust Div
Master Builders Co
Permitex Inc
Plexstone Corp America
Standard Dry Wall Products Inc
Tammis Industries Co

Concrete Block Machines
Brikcrete Associates Inc
Columbia Machine Inc
Dunn W E Co
Lithibar Co
Wagner Iron Works

Concrete Blocks
Graystone Div
General Concrete Products Inc
Illinois Brick Co
Waylite Co
West Allis Concrete Prods Co

Concrete, Calcium Chloride For
City Chemical Corp
Pittsburgh Plate Glass Co
Solvay Process-Allied Chem Dye
Wyandotte Chemicals Corp

Concrete Finsihing Machines & Equipment
American Floor Machine Co
Chain Belt Co
Chicago Pneumatic Tool Co
Dayton Sure-Grip & Shore Co
Dolmar Industries Inc
General Engines Co Inc
Goldblatt Tool Co
Kelley Machine Div Wisner-Saeger Co Inc
Koehring Co
Kor-It Co Inc
Master Vibrator Co
Muller Machinery Co Inc
Remington Arms Co Inc
Speedway Mfg Div Thor Power Tool Co
Slow Mfg Co
Concrete Form Liners
Bethlehem Steel Co
Dipcraft Mfg Co
Horn A C Companies
Kordite Co
Lithibar Co
Masonite Corp
Paxton Frank Lumber Co
United States Plywood Corp
Viking Co
Youngblood Lumber Co

Concrete Form Ties & Accessories
Concrete Form Ties &

Dipcraft Mfg Co
Masonite Corp
Lithibar Co
Horn A C Companies
Irvington Form & Tank Co
Jeffery Form Tie Co
Merwin Mfg Co
Rockform Corp
Sheffield Div Armo Steel Corp
Simplex Forms System Inc
Sommer Metal Craft Corp
Superior Scaffold Co
Symons Clamp & Mfg Co
Unisturf Prods Co
U S Mineral Wool Co
Universal Form Clamp Co
Wood Conversion Co

Concrete Forms
Concrete Forms (See Guns, Pneumatic, Concrete Application)

Concrete Mixers, Mortar (For On-Site Use)
Chain Belt Co
Colorcrete Industries Inc
Construction Machinery Co
Dotmar Industries Inc
Dunn W E Co
General Engines Co Inc
Gilson Brothers Co
Goldblatt Tool Co
Jaeger Machine Co
Johnson C S Co
Koehring Co
Lithibar Co
Muller Machinery Co Inc
Newark Ladder & Bracket Co Inc
Smith T L Co
Worthington Corp

Concrete Mixers, Transit
Chain Belt Co
Construction Machinery Co
General Engines Co Inc
Heracles-Gallon Products Inc
Jaeger Machine Co
Smith T L Co
Whiteman Mfg Co
Worthington Corp

Concrete Paint (See Paints & Coatings, Concrete)

Concrete, Prestressed & Precast
Greystone Div

Concrete, Prestressed & Precast

Concrete Sawing Equipment
Carborundum Co
Clipper Mfg Co
Everalad Brikaaw Co
Thor Power Tool Co
Victor Inc

Concrete Vibrators, Gasoline & Electric
Chicago Pneumatic Tool Co
General Engines Co Inc
Hommelie Div Textron Inc
Jackson Vibrators Inc
Kelley Machine Div Wiener-Rapp Co Inc
Maginnis Power Tool Co
Master Vibrator Co
Omark Industries Inc
Pacific Mercury Electronics
Remington Arms Co Inc
Speedway Mfg Div Thor Power Tool Co
Stone Machinery Co
Stow Mfg Co

Sybron Co
Thor Power Tool Co
Vibro Pluss Mfg Inc
Whiteman Mfg Co

Conduits & Raceways
Aluminum Co of America
American Flexible Conduit Co
Anacondas American Brass Co
Byers A M Co
Carlon Products Corp
Chase Brass & Copper Inc
Circle Wire & Cable Corp
Clayton Mark & Co
Columbia Metal Box Co
General Cable Corp
General Electric Co Construction Materials
Harvey Aluminum
Johns-Manville Corp
Kaiser Aluminum & Chemical Corp
Keystone Mfg Co
Laclede Steel Co
Line Material Ind McGraw-Edison Co
Okonite Co
Orangeburg Mfg Co Div Flintkote Co
Pyle-National Co
Republic Steel Corp
Southwestern Plastic Pipe Co
Triangle Conduit & Cable Co Inc
Unistrut Prods Co
Wiremold Co
Youngstown Sheet & Tube Co

Controls, Heating & Air Conditioning
Arrow Hart & Hegeman Elec Co
Berko Electric Mfg Corp
Controls Co of America
Crane
Cutler Hammer Inc
Everwarm Inc
General Electric Co Apparatus Sales
Hoffman Specialty Mfg Corp
International Register Co
Kol-Master Corp
Lawler Automatic Controls Inc
Lennox Industries Inc
Merrill Corp
Minnesota Honeywell Regulator
Morrison Steel Products Inc
Paragon Electric Co
Penn Controls Inc
Robertshaw Thermostat Div
Snow Mfg Co
Sunwarm Inc
Thrush H A & Co
Tork Time Controls Inc
Trilplex Heating Speciality Co Inc
Westinghouse Electric Corp
White-Rogers Co
Wilcoastor Co

Controls, Lighting (See Wiring Systems, Remote Control)

Conveyors
Alvey Ferguson Co Inc
American Conveyor Co
Barber Greene Co
Bodinson Mfg Co
Bosworth Mfg Co
Buschman E W Co Inc
Charn Belt Co
Colson Corp
Ferguson Harry J Co
Gee Vee Line
Goldblatt Tool Co
Goodall Rubber Co Inc
Goodyear Tire & Rubber Co
Hewitt-Bobins Inc
Koehring Co
Lake Shore Inc Lake Shore Eog Div
Lippmann Engineering Works Inc
Louden Machinery Co
Mathews Conveyor Co
Metzgar Conveyor Co
Morgen Mfg Co
Mulkey Sam Co
New London Engineering Co
Northern Conveyor Co

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Turn to Section 3—Manufacturers Directory for all addresses
Copper Tubing
(See Pipe & Tubing, Brass & Copper)

Cork Flooring
(See Tile, Cork)

Counterflow Furnace Units
(See Furnaces, Counterflow)

Countertops
Armstrong Cork Co
Boro Wood Prods Co Inc
Carthage Marble Corp
Cheminol Co
Congoleum-Nairn Inc
Elkay Mfg Co
Fibrexin Plastics Co
Fernica Corp
General Elec Co Laminated Prods Dept
Goodyear Tire & Rubber Co
Gregg & Son Inc
Hyde Park Products Co
Kitchen Kompact Inc
Marsh Wall Products Inc
National Tile & Mfg Co
Regal Laminates Inc
St Regis Paper Co Panelyte Div
Santi-Top Inc
Shepel-Wagner
Stylox Corp
Texbroo Cabinet Corp
Tomar Inc
United States Plywood Corp
United States Rubber Co
Wausau Metals Corp

Coverings, Wall
(See Wall Coverings)

Cranes & Shovels
Allis Chalmers Mfg Co Constr Mach Div
Arts & Dogs & Derrick Co
Bucyrus-Erie Co
Clark Equipment Co Constr Mach Div
DeWitt Inc
Disston Div H K Porter
Dorneyer Corp
Dosch Mfg Co
Ekstrom Carlson & Co
Huth Brothers Saw Mfg Co Inc
Jet Tool Inc
Mattison Machine Works
McConner Inc
Mohon R C Co
Penn Metal Co Inc
Paxton Frank Lumber Co
Reynolds Laminated Products
Rubberoid Co
Simpson Timber Co
Texas Vermiculite Co
Ther-Mo Roof Inc
Timber Structures Inc
Uni-Crest Div United Cork
United States Gypsum Co
Waylite Co
Wood Conversion Co
Zonolite Co

Decking, Melting
Ceco Steel Prods Corp
Dayton Sure-Grip & Shore Co
Dunn & Boush Co
Inland Steel Products Co
McComber Inc
Mahon R C Co
National Gypsum Co
National Build-Ins Inc
Owens-Corning Fiberglas Corp
Reynolds Laminated Products
Roebuck Co
Ryerson Joseph T & Son
Stram-Steel Corp Div Nat Steel Corp
Tenison Bros Inc
United States Lumber Corp
Wheeling Corrugating Co

Dehumidifiers
(See also Air Conditioners)
Abbeox Supply Co
Adams Corp
Albion Div McGraw-Edison Co
Amana Refrigeration Inc
Berea Air King Corp
Carrier Corp
Clareg Fan Co
Cory Corp
Dayton Electric Mfg Co
Emeron-Pryne Co
Federated Corp
Gibson Refrigerator Sales Corp
Kelvinator Div American Motors Co
Morgan-Wightman Co
Mueller Climatrol Div
Remington Air Conditioning Div
Westinghouse Electric Corp
Whirlpool Corp
Worthington Corp

Derricks
(See Hoists & Derricks)

Devices, Wiring
(See Wiring Devices)

Dining Nooks
(See Nooks, Dining)

Dishwashers
Admiral Corp
Chambers Built-Ins Inc

Disposers, Garbage
American-Standard Plumbing & Heating Div
Chambers Built-Ins Inc
Donley Brothers Co

Dining Nooks
(See Nooks, Dining)

Dishwashers
Admiral Corp
Chambers Built-Ins Inc

Disposers, Garbage
American-Standard Plumbing & Heating Div
Chambers Built-Ins Inc
Donley Brothers Co
Doors, Combination, Aluminum
(See Windows & Doors)

Doors, Combination, Steel
(See Windows & Doors)

Doors, Combination, Wood
(See Windows & Doors)

Doors, Flexible & Folding
American Accordian-Fold Doors Inc
American Steel Door Co
Anmold Building Products
Clopsey Corp
Columbia Mills Inc
Consolidated General Prod Inc
Cookson Co
 Cox Arthur & Sons Inc
Craftwood Products
Curtis Companies Inc
Curtiion Corp
Eastern Products Corp
Evergreen States Forest Products
Fenestra Inc
Float-Away Door Co
Gates Mfg Co Inc
Grant Pulley & Hardware Corp
Gregg & Son Inc
Holcomb & Hoke Mfg Co Inc
Hough Mfg Corp
Leigh Building Products Div
Michel & Pfeffer Iron Works Inc
Morgan Company
New Castle Products Inc
Nova Sales Co
Panelfold Doors Inc
Paine Lumber Co Ltd
Panofold Doors Inc
Pasco Frank Lumber Co
Perless-Wood Products
Precision Pattern Co
Ready Hung Door Corp
Republic Steel Corp Truscon Div
Reynolds Aluminum Supply Co
Richards-Wilcox Mfg Co
Rock Island Millwork Co Factory Div
Rohrwein Co
Sokana Sash & Door Co

Suncraft Inc
United States Plywood Corp
Wacowall Div Waco-Porter Corp
Warren Shade Co Inc
Wachs Mfg Co Inc
Wacowall Div Waco-Porter Corp
Wagner Mfg Co

Doors, Garage, Upward Acting,
Metal
Atlas Overhead Door Co
Barber Colman Co
Barber Colman Co
Berkley Aluminum Products Inc
Berry Door Corp

Berry GARAGE DOORS
Full 5 year guarantee
One-piece and sectional steel and wood models

Ask your distributor or write direct
Berry Door Corporation
2400 E. Lincoln Road, Birmingham, Michigan

Biles Co
Burr-Southern Div State Steel Industries Inc
Ceo Steel Prods Corp
Davidson Enamel Prods Inc
DeVac Inc
Fenestra Inc
International Fireproof Door Co
International Steel Co
Kawneer Co
Keywest Mfg Co
Kinnear Mfg Co
Leigh Building Products Div
Marmet Corp
Meyer Bros Iron Co
Michel & Pfeffer Iron Works Inc
Morrison Steel Products Inc
Mueller Brass Co
North East Metal Products Corp
Panelfold Products Inc
Republic Steel Corp
Republic Steel Corp Truscon Div
Richards-Wilcox Mfg Co
Richmond Fireproof Door Co
Rowe Mfg Co
Rusco Div of F C Russell Co
State Steel Industries Inc
Steelcraft Mfg Co
Sun Valley Industries
United Steel Fabricators Inc
Virginia Metal Products Inc
Vulcan Metal Products Inc
Winter Seal Corp

Doors, Interior & Exterior, Metal
Anson & Gilkey Co
Baillou Co
Bradley Southern Div
Caradco Inc

Berry GARAGE DOORS
Full 5 year guarantee
One-piece and sectional steel and wood models

Ask your distributor or write direct
Berry Door Corporation
2400 E. Lincoln Road, Birmingham, Michigan

Biles Co
Celsiusway Inc
Donley Brothers Co
International Fireproof Door Co
Michel & Pfeffer Iron Works Inc
Pak-Cel Inc
Vega Industries Inc

Doors, Combination, Aluminum
(See Windows & Doors)

Doors, Combination, Steel
(See Windows & Doors)

Doors, Combination, Wood
(See Windows & Doors)
North East Metal Products Corp
Weber veneer & plywood co
Youngblood Lumber Co

Doors, Louver, Metal
Auer Register Co
International Fireproof Door Co
Leigh Building Products Div
North East Metal Products Corp
Panelglass Products Inc
Republic Steel Corp Truscon Div
Robert Co

Doors, Louver, Wood
Caradco inc
Clopay Corp
Craftwood products
Currie Companies Inc
Door's inc
Farley & Loetischer Mfg Co
Georgia Pacific Corp
Goshen Sash & Door Co
Gregg & Son Inc
Health Mastercraft Products
Ideal Co Mfg Div Wm cameran & Co
International Paper Co Long-Bell Div
Kemmtrak Corp Sub Ekco Prod
Kochton plywood & veneer Co inc
Missoula White Pine Sash Co
Morgan Company
Morgan-Wightman Co

Doors, Sliding Glass
Ader Corp
Alaco inc
American-Saint gobain Corp
American Shower Door Co Inc
Arcadia Metal Products
Blinewater Glass Co
Capitol Products Corp
Capri Sales Inc
Cape Mfg Co
Daryl Products Corp
Dyna-Pak Corp
Fenestra Inc
Fleet of America Inc
Horizon Door Co
Ida Products Co
Merrill Aluminum Corp
Miami Window Corp
Moloney Co
National Window Corp
Peerless-Wood Products
Pease Woodwork Co Inc
Member Brass Iron Co
Morgan-Wightman Co

Doors, Shower & Bathtub
(See also Shower Stalls)
American Shower Door Co Inc
Anorex Products Inc
Beautil-Dor Inc
Blinewater Glass Co
Chehawd Co
Cutler Metal Prods Co
Daryl Products Corp
Effren Theodore Mfg Co
Evergreen States Forest Products
Flat Metal Mfg Co
Fuller W P & Co
Glass Shower Door Co Inc
Grant Pulley & Hardware Corp
Jones Shutter Products
Ketcham G M Mfg Corp
Lehman Specialty Co
Look Products Inc
Milwaukee Stamping Co Bathe-Rite Div
Morgan-Wightman Co
North East Metal Products Corp
Perrine Industries Inc
Pittsburgh Plate Glass Co
Royal Jalousie Co
Safety-Flex Enclosures Div Woodside Ind
Shower Door Co of America
Showerfold Door Corp
Standard Building Products Co
Standard Steel Cabinet Co
Tilestone Co
Trimview Metal Products
Waco Products Inc
Weis Henry Mfg Co

Doors, Sliding Glass
Ader Corp
Alaco inc
American-Saint gobain Corp
American Shower Door Co Inc
Arcadia Metal Products
Blinewater Glass Co
Capitol Products Corp
Capri Sales Inc
Cape Mfg Co
Daryl Products Corp
Dyna-Pak Corp
Fenestra Inc
Fleet of America Inc
Horizon Door Co
Ida Products Co
Merrill Aluminum Corp
Miami Window Corp
Moloney Co
National Window Corp
Peerless-Wood Products
Pease Woodwork Co Inc
Member Brass Iron Co
Morgan-Wightman Co

Doors, Shower & Bathtub
(See also Shower Stalls)
American Shower Door Co Inc
Anorex Products Inc
Beautil-Dor Inc
Blinewater Glass Co
Chehawd Co
Cutler Metal Prods Co
Daryl Products Corp
Effren Theodore Mfg Co
Evergreen States Forest Products
Flat Metal Mfg Co
Fuller W P & Co
Glass Shower Door Co Inc
Grant Pulley & Hardware Corp
Jones Shutter Products
Ketcham G M Mfg Corp
Lehman Specialty Co
Look Products Inc
Milwaukee Stamping Co Bathe-Rite Div
Morgan-Wightman Co
North East Metal Products Corp
Perrine Industries Inc
Pittsburgh Plate Glass Co
Royal Jalousie Co
Safety-Flex Enclosures Div Woodside Ind
Shower Door Co of America
Showerfold Door Corp
Standard Building Products Co
Standard Steel Cabinet Co
Tilestone Co
Trimview Metal Products
Waco Products Inc
Weis Henry Mfg Co

Doors, Sliding Glass
Ader Corp
Alaco inc
American-Saint gobain Corp
American Shower Door Co Inc
Arcadia Metal Products
Blinewater Glass Co
Capitol Products Corp
Capri Sales Inc
Cape Mfg Co
Daryl Products Corp
Dyna-Pak Corp
Fenestra Inc
Fleet of America Inc
Horizon Door Co
Ida Products Co
Merrill Aluminum Corp
Miami Window Corp
Moloney Co
National Window Corp
North East Metal Products Corp
Perrine Industries Inc
Peterson Window Corp
Pittsburgh Plate Glass Co
Republic Steel Corp Truscon Div
Reynolds Aluminum Supply Co
Robertson Co
Royal Jalousie Co
Safetee Glass Co
Shower Door Co of America
Slide-View Door & Window Co
Southern Sash Sales & Supply Co
Sun Valley Industries
Textron Metals Co
Toledo Plate & Window Glass Co
Trim Slide Inc
Trimview Metal Products
Universal Fabricators
Virginia Glass Products Corp
W M Products Co
Winter Seal Corp

Doors, Sliding Wood & Metal
Aluminum & Glass Products Co
Arnold Alex Alum Co
Clark Door Co Inc
Clopay Corp
Cole Mfg Co
Cox Arthur & Sons Inc
Craftwood Products
Curtin Companies Inc
E-Z Set Windows Inc
EZ-Way Sales Inc
Iza Products Co
International Fireproof Door Co
Fenesta Inc
Glade Windows Inc
Ideal Co Mfg Div Wm Cameron & Co
Ilpt Door Co Inc
Labrie Mfg Co Inc
Malibu Mfg Corp
Mengel Co
Michel & Pfeffer Iron Works Inc
Morgan Company
Oro Mfg Co
Paine Lumber Co Ltd
Pawon Frank Lumber Co
Premier Hall Mfg Co
Ready Hung Door Corp
Republic Steel Corp Truscon Div
Richards-Wilcox Mfg Co
Rockwell of Randolph Inc
Silver Line Co
Slide-View Door & Window Co
Standard Building Products Co
Stearns Mfg Co
Strom King Corp
United States Plywood Corp
Virginia Metal Products Inc
Wel-Bilt Products Co
Weyerhaeuser Co Raddis Div
Winter Seal Corp
Woodall Industries Inc

Douglas Fir
(See Lumber, Fir, Douglas or Plywood, Douglas Fir)

Drains, Shower
Josam Mfg Co
Hoffman Specialty Mfg Corp

Drawer Slides & Rollers

Ajax Hardware Corp
Amerock Corp
Extension Drawer Support Co
Grant Pulley & Hardware Corp
Junior-Pro Products Co
Knape & Vogt Mfg Co
Leigh Building Products Div
Penn-Akron Corp
Washington Steel Prods
Woodside Engineering Co

Drawers, Plastic
Knoll-Drake Products Inc
Masonite Corp
Morgan-Wightman Co
Washington Steel Prods

Drill Grinders
(See Grinders, Drill)

Drills, Brick, Concrete, Tile
Arro Expansion Bolt Co
Black & Deck Mfg Co
Bucyrus-Erie Co
Bulldog Div Gregory Industries Inc
Chicago Expansion Bolt Co
Chicago Pneumatic Tool Co
Cincinnati Tool Co
Clipper Mfg Co
Damascus Steel Products Corp
Diamond Expansion Bolt Co Inc
Gardner-Denver Co
General Hardware Mfg Co Inc
Hawkeye Sales Inc
Holub Industries Inc
Hood Bros
Jordan Industries
Mayhew Steel Products Inc
Milwaukee Elec Tool Corp
Molco Drilling Machine Inc
New England Carbide Tool Inc
Omark Industries Inc
Oxwall Tool Co Ltd
Paine Co
Phillips Drill Co
Proto Tool Co Div Pendleton Tool Ind Inc
Rawsgull Co Inc
Remington Arms Co Inc
Relton Corp
Skil Corp
Stanley Tools
Star Expansion Industries Corp
Stortz John & Son Inc
Syntron Co
Thor Power Tool Co
Union Twist Drill Co
U S Expansion Bolt Co
Victor Inc
Wodack Electric Tool Corp

Drills, Electric, Portable
Albertson & Co Inc
American Floor Machine Co
Black & Decker Mfg Co
Blum Jullius & Co Inc
Bulldog Div Gregory Industries Inc
Chicago Pneumatic Tool Co
Clipper Mfg Co
Cummings Portable Tools Div
Dalton Mfg Co
Dayton Electric Mfg Co
Denton Div H K Porter
Dormeyer Corp
Forsberg Mfg Co
Hoisting John H Co
Ingersoll-Band Co
Kett Tool Co
Koehring Co
Mills Falls Co
Milwaukee Elec Tool Corp
Molco Drilling Machines Inc
Portable Electric Tools Inc
Porter-Cable Machine Co
Rayson Joseph T & Son
Skill Corp
Speedway Mfg Div Thor Power Tool Co
Stanley Electric Tools
Thor Power Tool Co
Union Twist Drill Co
Wen Products Inc
Wodack Electric Tool Corp

Drivers & Fasteners, Cartridge

Actual Type
Fastway Fasteners Inc
Hawkeye Sales Co
Hilti Rapid Fastening Systems Inc
Nelson Stud Driver Div
Omark Industries Inc
Ramset Fastening System
Remington Arms Co Inc

Dryers, Clothes
(See Washers & Dryers, Clothes)

Ducts, Metal
H-P Products
Inland Steel Products Co
International Oil Burner Co
Keystone Mfg Co
Lennox Industries Inc
Wilcox Metal Products Inc
Williamson Co

Dumbwaiters
Barrett Craven Co
Bochman Mfg Co
C & H Electric Machine Co
Chelsea Elevator Co
Dover Corp Electric Elevator Div
Inclinator Co of America
Lewis-Shepard Products Inc
Otis Elevator Co
Robot Industries Inc
Whitney Vincent Co

Earthmoving Equipment
(See Backhoes, Bulldozers, Cranes, etc.)

Electrical Materials
(See Conduits & Raceways also Wiring Systems)

Elevators, Hand Power
(See Dumbwaiters)

Estimating Services
Construction Cost Institute
Coshen Sash & Door Co
Lifetime Industries Inc
Tamblyn Systems
Unit Structures Inc

Fans, Commercial
Acme Engineering & Mfg Corp
Air Controls Inc
American Air Filter Co
Berk Air King Corp
Buffalo Forge Co
Chelsea Blower Corp
Consolidated General Prod Inc
Cory Corp
Dayton Electric Mfg Co
Emerson Electric Mfg Co
Gaffers & Satter Div
ILG Electric Ventilating Co
Peerless Electric Div H K Porter Co Inc
Standard Electric Mfg Co Inc
Stewart J S Electric
Trane Co
Westinghouse Electric Corp

Fans, Exhaust, Bath & Kitchen
Acme Engineering & Mfg Corp
Air Controls Inc
American Standard Industrial Div
Aubrey Hardware Mfg Inc
Bar-Brook Mfg Co
Berk Air King Corp
Boro Wood Prods Co Inc
Broan Mfg Co Inc
C & H Air Conditioning Co Inc
Cal Vent Mfg Co
Carey Philip Mfg Co
Chambers Built-In Inc
Chelsea Fan & Blower Co Inc
Clarage Fan Co
Dayton Electric Mfg Co
Emerson Electric Mfg Co
Emerson-Pryne Co
Faero Industries Inc
Gray & Dudley Co
Gregg & Son Inc
ILC Electric Ventilating Co
Kitchen Kompact Inc
Kol-Master Corp
Lau Blower Co
Lehon Co
Leigh Building Products Div
Marvel Electric Mfg Co
Master Mechanic Mfg Co
McLean Engineering Labs
Miami Cabinet Div Philip Carey Mfg
Morgan-Wightman Co

Fascia & Soffits, Aluminum
Alcoa Inc
Aluminum Inc
Kaiser Aluminum & Chemical Corp
Keystone Alloys Co
Lifetime Industries Inc

Mueller Brass Co
Reynolds Aluminum Supply Co
Victor Tool & Machine Corp

Fasteners
Arro Expansion Bolt Co
Bethlehem Steel Co
Buldog Div Gregory Industries Inc
Butcher & Hart Mfg Co
Carey Philip Mfg Co
Chase Brass & Copper Inc
Diamond Expansion Bolt Co Inc
E G Building Fasteners Corp
ES/Products Inc
Hassall John Inc
Hawkeye Sales Co
Hercules Fastener Co
Hilti Rapid Fastening Systems Inc
Hoskins John H Co
Jordan Industries
Knap & Vogt Mfg Co
Lamson & Sessions Co
Ludwig Mfg Co Inc
Molly Corp
Nelson Stud Driver Div
Paine Co
Phillips Drill Co
Power Line Sales Inc
Power Rail Co
Ramsert Fastening System
Reynolds Aluminum Supply Co
Robertson Steel & Iron Co
Sheffield Div Armco Steel Corp
Stanecrew Fasteners Div Standard Screw Co
Star Expansion Industries Corp
Stik-Klip Mfg Co Inc
Superior Fastener Corp
Timber Engineering Corp
Timmerman Products Inc
U S Expansion Bolt Co
United States Gypsum Co

Faucets, Tub & Shower
Alamark Inc
American-Standard Plumbing
Chicago Faucet Co
Gyro Brass Mfg Corp
Harvey Aluminum
Leaman Specialty Co
Moen Faucet Div Standard Screw Co
National Disposer
National Rubber Machinery Co
Powers Regulator Co
Speckman Co
Sterling Faucet Co
Weil-Parsons Mfg Co
Universal-Rundle Corp

Felt Roofing
(See Roofing, Asphalt)

Fencing

Ornamental Iron Fencing

American Steel & Wire Div
Anchor Fence Div Anchor Post Prods Inc
Arrow Tank Co Inc
Baumgarten Gate Factory
Bethlehem Steel Co
Bradley Southern Div
Colorado Fuel & Iron Corp
Continental Steel Corp
Copperclad Steel Corp
Dipcraft Mfg Co
Erdie Perforating Co Inc
Filson Plastics Corp
Grimson-Rakestrail Lumber Co
Forbes Steel Corp
Heilman Fence Inc
Harris L C Cedar Ltd
Jackson Shake Co
Jones & Laughlin Steel Corp
Kaiser Aluminum & Chemical Corp
Keystone Steel & Wire Co
Masonic Corp

Mid-States Steel & Wire Co
Northwestern Steel & Wire Co
Robertson Steel & Iron Co
Sheffield Div Armco Steel Corp
Stewart Iron Works Inc
Tennessee Fabricating Co
United States Steel Corp

Fiber Board
(See Wallboard & Sheathing, Fiber; also Insulating Board)

Fiber Joint Sewer Pipe
(See Pipe, Sewer)

Files, Saw & Circular
Bellevue Machinery Co
Carborundum Co
Diston Div H K Porter Co Inc
Heller Tool Co
Nicholson File Co
Plumb Lafayette R Inc
Simonds Saw & Steel Co

Financing
Mortgage Exchange Co of America Inc
Universal C I T Credit Corp

Finishers, Wallboard
(See Cement, Wallboard Joint)

Finishes & Sealers
Allied Chemical Corp Barrett Div
American Asbestos Product Co
American Floor Machine Co
American Varnish Co
Armstrong Cork Co
Bangkok Industries Inc
Barreled Sunlight Paint Co
Biddle Co
Borden Chemical Co Div Borden Co
Bruce E L Co
Ceresit Corp
Chicago Bronze & Color Works
Clarke Floor Machine Co
Cromar Co
Dad & Lad Co
Devoe & Raymond Co Inc
Dixon Joseph Crucible Co
Douglas & Sturgess
DuPont de Nemours & Co Inc E I
Elliott Paint & Varnish Co
Flexrock Co
Flintkote Co
Forman-Ford & Co
Glidden Co
Globe Paint Works Inc
Hild Floor Machine Co Inc
Horn A C Companies Div Sun Chem Corp
Johnson's Wax
Lawrence W W & Co
Low Bros
Lucas John & Co Inc
Marietta Paint & Color Co
Martin-Senour Co
Massey-Ferguson Inc Industrial Div
McCulloch Co
Minnesota Mining & Mfg Co
Minnesota Paints Inc
Mirroplas Tile Co
Monroe Co Inc
National Chemical & Mfg Co
National Mfg Corp
O'Brien Corp
Parr Paint & Color Co
Peterson D J Co Inc
Phelan-Faust Paint Mfg Co
Pittsburgh Plate Glass Co
Pratt & Lambert Co
Protection Products Mfg Co
Ranette Mfg Co
Rex Wood-Tones Inc
Rockcote Paint Co
Sailors Paint Co
Sapcini Paints Inc
Selbitz Paint & Varnish Co
Selby Battersea & Co
Sherwin-Williams Co
Sonnenbom Chemical & Refining Corp
Stay-Tite Products Co
Steeleite Mfg Co
Tawnee Industries Co
Thickoll Chemical Corp
Thompson E A Co Inc
Tremco Mfg Co
Tufcote Co Inc
Twentieth Century Paint & Varnish
United States Gypsum Co
United States Plywood Corp
United States Rubber Co
Valpar Corp
Vista-Var Corp
Waco-Dennis Corp
Wooster Sealcoat Co
X-Pando Corp
Zimmer William & Co Inc

Finishing Machines, Concrete
(See Concrete Finishing Machines)

Fir, Lumber
(See Lumber, Fir, Douglas)

Fir, Plywood
(See Plywood, Douglas Fir)

Fire Alarm Systems
(See Alarms, Fire & Burglar)

Fire Extinguishers
Moore Pipe & Sprinkler Co

Fireplaces, Outdoor & Equipment
Adams Co
Bennett-Ireland Inc
Burr-Southern Div
Caradco Inc
Colonial Fireplace Co
Columbia Brick Works
Donley Brothers Co
Dover Steel Peerless Mfg Div
Grillcraft Co
Hasty-Bake Mfg Co Inc
Industrial Iron Works
Majestic Co Inc
Miller Howard Clock Co
Morgan Company
NuTone Inc
Outdoor Oven Fireplace Co
Peabody Robert H Co
Silent Glow Oil Burner Co
State Steel Industries Inc
Stratton Terstegge Co
Superior Fireplace Co
Thermo Rite Mfg Co
Vestal Mfg Co

Fireplaces, Prefabricated
Condensation Engineering Co
Condon-King Co
Donley Brothers Co
Hearthaire Conditioning Co
Majestic Co Inc
Morgan-Wightman Co
Oakdale Foundry Co
Readybuilt Products Co
Stratton Terstegge Co
Vega Industries Inc

Fireplaces, Units, Metal
Adams Co
Bennett-Ireland Inc
Builders Brick Co
Builders Fireplace & Supply
Colonial Fireplace Co
Columbia Brick Works
Condon-King Co
Donley Brothers Co
Grillcraft Co
Hearthaire Conditioning Co
Majestic Co Inc
State Steel Industries Inc
Superior Fireplace Co
Vega Industries Inc
Vestal Mfg Co

Fixtures, Electric Lighting
American Louver Co
Art Metal Co
Atlas Electric Prods Co
Benjamin Div Thomas Industries Inc
Curtis-Albritte Lighting Inc
Del Val Mfg Co
Eagle Electric Mfg Co
Erde Perforating Co Inc
Emerson Electric Mfg Co

Emerson-Imperial Lighting Co
Emerson-Pryne Co
General Bathroom Products Corp
General Plastic Co
Glasscoiler Co
Great Northern Mfg Corp
Haloghane Co Inc
Hubbell Harvey Inc
Jay Lighting Mfg Co Inc
Kirlin Co
Lilcraft Mfg Pacific Corp
Lightolier Inc
Luminous Ceilings Inc
Markel Electric Prods Inc
Marvin Electric Mfg Co
Miller Co
Miller Howard Clock Co
Morgan-Wightman Inc
Pass & Seymour Inc
Penetray Corp
Prescolite Mfg Corp
Progress Mfg Co Inc
Pyle-National Co
Silvray Lighting Inc
Smoot-Holman Co
Stanco Electric Prods Co
Swivelier Co Inc
Sylvania Elec Prods Inc
Tennessee Fabricating Co

CAST METAL

Thomas Industries Inc
Union Insulating Co
Virden-John C Co
Virginia Glass Prods Corp
Westinghouse Electric Corp
Wiley R & W Inc
Zenith Metal Products Co

Fixtures, Plumbing
(See Plumbing Fixtures)

Flashings, Aluminum
Aluminum Co of America
Georgia Pacific Corp
Kaiser Aluminum & Chemical Corp
Kaiser Aluminum & Chemical Sales Inc
Ludlow Papers Div of Ludlow Corp
Muller Bros Co
Nichols Wire & Aluminum Co
Quaker State Metals Co
Revere Copper & Brass Inc
Reynolds Aluminum Supply Co
Reynolds Metals Co
Wasco Products Inc
Yack Mfg Co

Flashings, Copper
American Sialkraft Corp
Anaconda American Brass Co
Brighton Brass Co
Ceco Steel Prods Corp
Chase Brass & Copper Inc
Conver Steel & Wire Co
Delta Co
Humes C G Co
Inland Steel Products Co
Klauder Mfg Co
Ludlow Papers Div of Ludlow Corp
Revere Copper & Brass Inc
Reynolds Aluminum Supply Co
Wasco Products Inc

Flashings, Galvanized & Teme
Bethlehem Steel Co
Ceco Steel Prods Corp
Columbia Brick Works
Conver Steel & Wire Co
Follansbee Steel Corp
Inland Steel Products Co
Klauder Mfg Co
Northwestern Metals Products Inc
Reeve Steel & Mfg Co
Republic Steel Corp

Reynolds Aluminum Supply Co
Tennessee Bros Inc
Wheeling Corrugating Co
Yack Mfg Co

Flashings, Paper-Treated
American Sialkraft Corp
Johns-Manville Corp
Lebanon Co
Ludlow Papers Div of Ludlow Corp
National Mfg Corp
Protective Papers Inc
Richter Kraft Co
Thilmany Pulp & Paper Co
Wasco Products Inc

Flashings, Plastic
American Sialkraft Corp
Asphalt Corp of America
Carrollton Mfg Co
Daaco Co Inc
Delta Co
Dow Chemical Co
Goring Plastics Div
Kordite Co
Roberold Co
Rutland Fire Clay Co
Viking Co
Warp Brothers
Wasco Products Inc

Flooring, Asphalt Tile
(See Tile, Asphalt)

Flooring, Beech
Bradley Southern Div
Commonwealth Lumber Corp
Marsh Lumber Co

Flooring, Ceramic, Resilient
Harris Mfg Co
United States Ceramic Tile Co

Flooring, Ceramic Tile
(See Tile, Ceramic)

Flooring, Cork
(See Tile, Cork)

Flooring, Hardwood, Oak
Alabama Oak Flooring Co
Arkansas Oak Flooring Co
Atlanta Oak Flooring Co
Bradley Southern Div
Bruce E L Co
Carpenter Oak Flooring Co
Chickamauga Cedar Co Inc
Clyde Oak Flooring Co
Commonwealth Lumber Corp
Conner Lumber & Land Co
Cook A B Co
Cook F C & Co
Cromer Co
Crossett Lumber Co
Delmar Mfg Co
Eisenhower Flooring Co
Fair D L Lumber Co
Fordyce Lumber Co
Frost Forest Products Div
Galloway Lumber Co
Georgia Pacific Corp
Graybeal C R & Sons
Green-Bakeston Lumber Co
Hardwood Corp of America
Harris Hardwood Co Inc
Harris Mfg Co
Hassell & Parkes Inc
Higgins Industries Inc
Independence Oak Flooring Co
Int'L Paper Co Long-Bell Div
Kentucky Flooring Co of Va Inc
Leathers A H Mfg Co
Marsh Lumber Co
McMinnoville Mfg Co
Meadville River Lumber Co
Meridian Wood Prods Co
Miller Bros Co
National Forest Products Co
Ouan Lumber Co
Osark Oak Flooring Co
Phillips Rybne Lumber Co Inc
Pike's Hardwood Flooring Co Inc
Plyfloor Inc
Plywood Co

Turn to Section 3—Manufacturers Directory for all addresses
Generators, Engine-Driven
C & H Electric Machine Co
Carrier Corp
Dayton Electric Mfg Co
Jackson Vibrators Inc
Katolight Corp
Kohler Co
Onan Div of Studebaker-Packard Co
Pacifiic Mercury Electronics
Universal Motor Co
Waukesha Motor Co
Westinghouse Electric Corp
Wincharger Corp
Winepower Mfg Co
Witte Engine Works Oil Well Supply

Generators, Portable, Electric
Allis Chalmers Mfg Co Construction Mach
Dayton Electric Mfg Co
Generators, Portable, Electric Allis Chalmers Mfg Co Construction Mach
Caterpillar Tractor Co
 Dayton Electric Mfg Co
Fairbanks Morse & Co
General Electric Co Apparatus Sales
Homelite Div Texton Inc
Jackson Vibrators Inc
Katolight Corp
Kohler Co
Master Mechanic Mfg Co
Master Vibrator Co
Murray Electric Corp
Ohio Plate Glass Co
Pittsburgh Plate Glass Co
Pittsburgh Plate Glass Co
Pittsburgh Plate Glass Co
Pittsburgh Plate Glass Co
Pittsburgh Plate Glass Co
Pittsburgh Plate Glass Co
Pittsburgh Plate Glass Co
Pittsburgh Plate Glass Co

Glass, Architectural & Ornamental
American-Saint Gobain Corp
Forman-Ford & Co
Libby-Owens-Ford Glass Co
Nurre Co
Ohio Plate Glass Co
Pennsylvania Wire Glass Co
Perrine Industries Inc
Pittsburgh Plate Glass Co
Safety Glass Co
Virginia Glass Products Corp

Glass, Blocks
Forman-Ford & Co
Kimble Glass Co Sub Owens-Illinois
Owens-Illinois
Perrine Industries Inc
Pittsburgh Corning Corp
Southern Sash Sales & Supply Corp

Glass, Crystal Sheet
American-Saint Gobain Corp
Mondial United Corp

Glass, Double Pane
American-Saint Gobain Corp
Cale Mfg Co
Forman-Ford & Co
Libby-Owens-Ford Glass Co
Nurre Co
Ohio Plate Glass Co
Perrine Industries Inc
Pittsburgh Plate Glass Co
Safety Glass Co
Toldo Plate & Window Glass Co

Glass, Plate
American-Saint Gobain Corp
Cale Mfg Co
Forman-Ford & Co
Goshen Sash & Door Co
Libby-Owens-Ford Glass Co

Mondial United Corp
Nurre Co
Ohio Plate Glass Co
Pittsburgh Plate Glass Co
Pittsburgh Plate Glass Co
Pittsburgh Plate Glass Co
Pittsburgh Plate Glass Co
Pittsburgh Plate Glass Co
Pittsburgh Plate Glass Co

Glass, Structural
American-Saint Gobain Corp
Cale Mfg Co
Mondial United Corp
Ohio Plate Glass Co
Pennsylvania Wire Glass Co
Perrine Industries Inc
Pittsburgh Plate Glass Co

Glass, Window, Wire
American-Saint Gobain Corp
Cale Mfg Co
Dipcraft Mfg Co
Forman-Ford & Co
Goshen Sash & Door Co
Libby-Owens-Ford Glass Co
Mondial United Corp
Ohio Plate Glass Co
Nurre Co
Perrine Industries Inc
Pittsburgh Plate Glass Co
Toldo Plate & Window Glass Co

Glazing Compounds
(See Caulking & Glazing Compounds)

Greenhouses, Prefabricated
Dipcraft Mfg Co
Jones Shutter Products
Lord & Burnham Div Burnham Corp

Grilles, Door & Window
American Screen Products Co
Bayley William Co
Cincinnati Iron Fence Co Inc
Curtis Companies Inc
Erdie Perforating Co Inc
Hendrick Mfg Co
Hutchinson B H & Co
Ida Products Co
International Oil Burner Co
Mackinlay & Duncan Co
Metal Crafters
Meyers Fred L Mfg Co
Michel & Pfeifer Iron Works Inc
Moloney Co
Rudiger-Lang Co
Tennessee Fabricating Co
United States Register Co
Waterloo Register Co Inc
Yek Mfg Co

Grinders, Drill
Atlas Press Co
Blum Julius Co Inc
Cale Mfg Co
McDonough Mfg Co
Union Twist Drill Co

Grinders, Tool & Cutter
Black & Decker Mfg Co
McDonough Mfg Co

Guards, Areawall
(See Areawalls & Guards)

Gum Lumber (See Lumber, Gum)

Guns, Caulking
Calcare Inc
Horn A C Companies
Lawrence W W & Co
Mackinlay & Duncan Co
Rutland Flr Clay Co
Tamma Industries Co

Guns, Paint Spray
(See Paint Spray Guns)

Guns, Pneumatic Plaster
Flastering Development Center Inc
Santa Anita Mfg Co
Sprayton Equipment Co

Gutters, Metal
Alabama Metal Lath Co Inc
Alaco Inc
Aloe Inc
Alummaco Inc
Aluminum Co of America
Ceco Steel Products Corp
Chase Brass & Copper Inc
Inland Steel Products Co
Kaiser Aluminum & Chemical Corp
Keystone Mfg Co
Klauer Mfg Co
Lynn Coddin & Co Inc
Northwest Metal Products Inc
Quaker State Metals Co
Reeves Steel & Mfg Co
Republic Steel Corp
Republic Steel Corp Berger Div
Reynolds Aluminum Supply Co
Reynolds Metals Co
Tennison Bros Inc
Wheeling Corrugating Co

Gypsum plaster
See Plaster, Gypsum

Hammers, Gasoline
Barco Mfg Co
Syntron Co

Hammers, Hand
(See Tools, Carpenter, Hand)

Hammers, Pneumatic
Chicago Pneumatic Tool Co
Cotman Industries Inc
Gardner-Denver Co
Ingersoll-Rand Co
Le Roy Div Westinghouse Air Brake Co
Power Lines Sales Inc
Powermatic Co
Skill Corp
Speedway Mfg Div Thor Power Tool Co
Thom Power Tool Co
Worthington Corp

Hammers, Portable Electric
Black & Decker Mfg Co
Blum Julius Co Inc
Homesite Div Texton Inc
Ingersoll-Rand Co
Miller’s Falls Co
Milwaukee Elec Tool Corp
Porter-Cable Machine Co
Phillips Drill Co
Rawplug Co Inc
Skill Corp
Speedway Mfg Div Thor Power Tool Co
Stanley Electric Tools
Syntron Co
Thom Power Tool Co
Wodack Electric Tool Corp

Hangars, Bathub
American-Standard Plumbing & Heating Div
Hollander Mfg Co
Kohler Co
Lucke William B Inc

Hangars, Insulation
Dayton Sure-Grip & Shore Co
Moore Goodloe E Inc

Hangars, Joist & Lumber
Adams Co
Baumgartner Gate Factory
Cleveland Steel Speciality
Copeco Steel & Engineering Co
Dayton Sure-Grip & Shore Co
Dowley Brothers Co
Ideal Hangar Co
Inland Steel Products Co
Kees F D Mfg Co
Lanebro Mfg Co
Paine Co
Ruden N H Co Inc
Timber Engineering Co
Timber Fasteners Inc
United Steel Products Co
Designware Industries Inc
Dexter Lock Div Dexter Industries
Ekco Products Co
Ekco Hardware Corp
Engaged Products Co
Extension Drawer Support Co
Frantz Mfg Co
Frink-Gallagher Mfg Co Inc
Genaco Tools
Grant Pulley & Hardware Corp
Griffin Mfg Co
Independent Lock Co
H & M Cabinet Service
Hager C & Sons Hinge Mfg Co
Heller W & Co
Ideal Brass Works Inc
Ives H B Co
Junior-Pro Products Co
Knap & Vogt Mfg Co
Laboratory Equip Corp
Lake Drive Products Co Inc
Lawrence Brothers Inc
Mackinlburg-Duncan Co
McKinney Mfg Co
Mirra-Cote Co Inc
Medallist Hardware Div
Morgan-Wightman Co
National Mfg Co
Nordahl Sliding Door Frames
Pacific Brass & Hardware Mfg Co
Parkers S Hdwe Mfg Corp
Penn-Akron Corp
Russell & Erwin Div American Hardware
Safe Padlock & Hdwe Co
Selk Walter E & Co
Sherley Metal Products Co
Sherley Spring Hinge Co
Sherle-Wagner
Slamaker Lock Co
Sons Mfg Co
Stanley Hardware Div of Stanley Works
Sterling John Corp
Washington Steel Prods
Western Lock Mfg Co
Yale & Towne Mfg Co Yale Lock

Hardware, Closet
(See Closet Accessories)

Hardware, Door
Acorn Appliance Mfg Co Acme Builders
Acorn Mfg Co
Ajax Hardware Corp
Ajax Mfg Co Inc
Alillit-Prouty Inc
American Screen Products Co
Amerock Corp

Hardware, Cabinet
Acorn Appliance Mfg Co Acme Builders
Acorn Mfg Co
Ajax Hardware Corp
Amerock Corp

Amerock

For every need in Chrome, Brass, Copper, and Black finishes.

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JOIST AND BEAM HANGERS
Available for 2x4's to 4x12's

TIMBER ENGINEERING COMPANY
1319 18th St., N.W., Washington 6, D. C.

Hardboard
Vestal Mfg Co
Wagner Mfg Co
Yeler Mfg Co

Hardboard
Abitibi Corp
Armstrong Cork Co
Barclay Mfg Co Inc
Cascades Plywood Corp
Celotex Corp

Certainteed Products Corp
Diamond Lumber Co
Dipcraft Mfg Co

Evans Products Co
Flintkote Co
Forest Fiber Products Co
Georgia Pacific Corp

Hines Edward Lumber Co
Insulite Div Minnesota & Ontario Paper Co

Johnson-Mansville Corp
Kaiser Gypsum Co Inc
Keebe & Mattison Co
Kochton Plywood & Veneer Co Inc

Marsh Wall Products Inc
Masontile Corp
Midwest Plywood Corp
National Gypsum Co

Paxton Frank Lumber Co
Plasterson Wall Board Co
Reynolds Aluminum Supply Co

Robertson Steel & Iron Co
Simpson Timber Co
Superwood Corp

United States Gypsum Co
United States Plywood Corp
Vancouver Plywood Co

Weyerhaeuser Co Raddis Div
Weyerhaeusers Co Silvertex Div
Woodall Industries Inc

Woodward Lumber Co
Youngblood Lumber Co

Hardware, Closet
Ace Hardware Corp
Ajax Hardware Corp
Allish-Prouty Inc
American Screen Products Co

Amerock Corporation

Aubrey Hardware Mfg Inc
Austin & Eddy Inc
Baldwin Hardware Mfg Corp

Challenger Lock Co
Colonial Bronze Co

Corbin P & F Div American Hardware Corp

Chicago Spring Hinge Co

Colorado Fuel & Iron Corp

Dexter Lock Div Dexter Industries

Earle Hardware Mfg Co
Ekco Products Co

Fenestra Inc
Frantz Mfg Co
Getty H S & Co Inc

Glover Sash & Door Co
Grand Specialties Co

Grant Pulley & Hardware Corp

Griffin Mfg Co

Hager C & Sons Hinge Mfg Co

Hardware Products Inc

Harloe Products Corp

Hinge Butt Template

Ideal Brass Works Inc

Independent Lock Co

Ives H B Co

Kent-Slam Door Check Co

Kawneer Co

Knape & Vogt Mfg Co

Kwikset Div American Hardware Corp

LCN Closers Inc

Lawrence Brothers Inc

Leigh Building Products Div

Lockwood Hardware Mfg Co

McKinney Mfg Co

Medallist Hardware Div

Morgan-Wightman Co

National Mfg Co

Norton Door Closer Co

Pacific Brass & Hardware Mfg Co

Parker S Hdwe Mfg Corp

Paxton Frank Lumber Co

Peabody Mfg Co Inc

Peter Jas & Son

Richards-Wilcox Mfg Co

Russell & Erwin Div American Hardware

Safe Padlock & Hdwe Co

Sargent & Co

Schlage Lock Co

Sentry Stop-A-Draft Co

Sherley Spring Hinge Co

Sherle-Wagner

Slamaker Lock Co

Sons Mfg Co

Stanley Hardware Div

Starline Inc

Sterling John Corp

Trego Industries

Unique Window Balance Corp

United States Plywood Corp

Wagner Mfg Co

Washington Steel Prods

Weiser Co

Western Lock Mfg Co

Woodside Engineering Co

Wright Prods Inc

Yale & Towne Mfg Co Yale Lock

Hardware, Garage, Upward

Acting
Allish-Prouty Inc

Ambassa Door Co

Atlas Overhead Door Co

Barber Colman Overdoors & Operators Div

Better-Bilt Door Co

Calder Mfg Co

Capital Products Inc

Colorado Fuel & Iron Corp

Crawford Door Co

Frantz Mfg Co

Hager C & Sons Hinge Mfg Co

Howell Mfg Co

Lawrence Brothers Inc

McKee Door Co

Phenix Mfg Co

Raynor Mfg Co

Richards-Wilcox Mfg Co

Stanley Hardware Div of Stanley Works

Tavart Co

Wagner Mfg Co

Wel-Bilt Products Co

Winfield Door Corp

Yale & Towne Mfg Co Yale Lock

Teco-U-Crip

TIMBER ENGINEERING COMPANY
1319 18th St., N.W., Washington 6, D. C.

TIMBER ENGINEERING COMPANY
1319 18th St., N.W., Washington 6, D. C.

TIMBER ENGINEERING COMPANY
1319 18th St., N.W., Washington 6, D. C.
Hardware, Screen & Storm Sash

Ajax Hardware Corp
Colorado Fuel & Iron Corp
Corbin P & F Div American Hdwe Corp
Dennis W J & Co
Earle Hardware Mfg Co
Engineered Products Co
Franz Mfg Co
Griffin Mfg Co
Hager C & Sons Hinge Mfg Co
Handy Things Mfg Co
Ideal Brass Works Inc
Independent Lock Co
Kees P F Mfg Co
Knappe & Vogt Mfg Co
Lawrence & Sons Co
Lawrence Brothers Inc
Ludwig Mfg Co Inc
McKinney Mfg Co
Medallist Hardware Div
National Mfg Co
Parker S Hdwe Mfg Corp
Russell & Erwin Div American Hdwe Corp
Safe Padlock & Hardware Co
Shelby Metal Products Co
Shelby Spring Hinge Co
Slaymaker Lock Co
Yale & Towne Mfg Co Yale Lock

Hardware, Structural

Ajax Building Bracket Co
Arro Expansion Bolt Co
Cleveland Steel Specialty Co
Dayton Sure-Grip & Shore Co
Denley Brothers Co
Gang Nail Sales Co Inc
Hosking John H Co
Jordan Industries

Hardware, Shelf, Revolving

Amerock Corp

Ask Your Wholesaler

Electric Heat for Bathrooms and other small rooms

PLEASE SEE OUR ADVERTISEMENT IN THIS ISSUE

Emerson Electric Mfg Co
Emerson-Pryne Co
Empire Stove Co
Fasco Industries Inc
Gaffers & Batter Div
General Electric Co Wiring Device
Heathmore Inc
Hunter Div—Robbins & Myers Inc
International Oil Burner Co
Leigh Building Products Div
Lehco Co
Little H C Burner Co
Markel Electric Products Inc
Marvin Electric Mfg Co
Miami Cabinet Div Philip Carey Mfg
NuTone Inc
Ohio Foundry & Mfg Co
Roberts Mfg Co
Samuel Stamping & Enameling Co
Temco Inc
Thermador Electric Mfg Co
Trade-Wind Div Robbins & Myers Inc
Ventrola Mfg Co
West Electric Heater Co
Westinghouse Electric Corp
Wiegand Edwin L Co

Heaters, Contractors, Portable

Adams Bros Mfg Co Inc
American Air Filter Co
Ampere Industries
Armstrong Products Corp
Berko Electric Mfg Corp
Bero Air King Corp
Brosa Mfg Co Inc
Cavalier Corp
Cellheat Inc
Chattanooga Royal Co
Dixie Raydiant Electric Heat Corp
Dover Corp Peerless Mfg Div
Electro Products Corp
Electromode Div Commercial Controls

1. Electromode

ELECTRIC HEAT FOR BATHROOMS

AMERICAN BUILDER
Embassy Steel Prods Inc
Emerson Electric Mfg Co
Emerson-Pryne Co
Everwarm Inc
Fasco Industries Inc
General Electric Co Construction Materials
General Electric Co Wiring Device Dept
Gerwin Industries Inc
Heatmore Inc
Henry Furnace Co
Hunter Div-Robbins & Myers Inc
ILG Electric Ventilating Co
Insto-Gas Corp
International Oil Burner Co
Lennox Industries Inc
Majora Co Inc
Markel Electric Prods Inc
Meier Electric & Machine Co Inc
Modeine Mfg Co
Muncie Gear Co
Northwest Foundry & Furnace Co
Olsen C A Mfg Co
Precision Parts Corp
Rybolt Heater Co
Slant-Fin Radiator Corp
Stewart-Warner Corp
Sunwarm Inc
Thermador Elec Mfg Co
Typhoon Heat Pump Co Div Hupp Corp
Vulcan Electric Co
Vulcan Radiator
Westex Electric Heater Co
Westinghouse Electric Corp
Wiegand Edwin L Co
Williamson Co
York Corp Sub Borg-Warner

**Heating Systems, Forced Warm Air**

Airtemp Div Chrysler Corp
American Standard Air Conditioning Div
Arkla Air Conditioning Corp
Bryant Mfg Co
Burnham Corp Warm Air & Cooling Div
Carrier Corp
Cooper Mfg Co
Cranco
Day & Night Mfg Co
Delco Appliance Div General Motors
Electrend Products Corp
Electromode Div Commercial Controls
Evans Brick Co
Fasco Industries Inc
Gaffers & Sattler Div
General Automatic Products Corp
Glenmore Electric Mfg Corp
Henry Furnace Co
International Oil Burner Co
Jackson & Church Div
Janitrol Heating & Air Conditioning
Kriter Radiant Coils Inc
Lennox Industries Inc
Moore Mfg Co
Motor Wheel Corp
Mueller Climatrol Div Worthington Corp
Norman Products Co
Oakland Foundry Co
Olsen C A Mfg Co
Payne Co
Reznor Mfg Co
Suburban Propane Gas Corp
Tenco Inc
Trane Co
Weidex Electric Heater Co
Westinghouse Electric Corp
Young Radiator Co
York-Shipley Inc

**Heating Controls**

*(See Controls, Heating)*

**Heating Registers**

*(See Registers, Heating & Ventilating)*

**Heating Systems, Electric**

Albon Div McGraw-Edison Co
Allied Precision Indus Inc
American Standard Air Conditioning Div
Americo Industries
Arvin Industries Inc
Berko Electric Mfg Corp
Burnham Corp Warm Air & Cooling Div
Carrier Corp
Cavalier Corp
Cellheat Inc
Coleman Co Inc
Continental Radiant Glass Heating
Dixie Raydiant Electric Corp
Electrend Products Corp
Electromode Div Commercial Controls

**Heating Systems, Hot Water & Steam**

Aldrich Co
American-Standard Plumbing & Heating Div
Bastian-Morley Co Inc
Bell & Gossett Co
Brown Prod Co
Airtemp Div Chrysler Corp
American Furnace Co
Bryant Mfg Co
Burnham Corp Heating & Cooling Div
Carrol Corp
Milwaukee Mfg Corp
Emerson-Pryne Co
Everwarm Inc
Fasco Industries Inc
General Electric Co Wiring Device
Heatmore Inc
Hell-Quaker Corp
Hunter Div-Robbins & Myers Inc
Hydrotherm Inc
Gilbert & Barker Mfg Co
International Oil Burner Co
Hoffman Specialty Mfg Corp
Hydrotect Inc
Johnson S T Co
Koven L O & Bro Inc
Krensa-Stamm Corp
Kriter Radiant Coils Inc
Little H C Burner Co
Lookout Boiler & Mfg Co
Modeine Mfg Co
Moeller Climatrol Div Worthington Corp
Nebbitt John J Inc
Pebeco Industries Inc
Peerless Heater Co
Precision Parts Corp
Roberts Gordon Appliance Corp
Rond Mfg Co
Stant-Fin Radiator Corp
Smith A O Corp
Smith & Loveless Div
Stewart-Warner Corp
Stratton Terregale Co
Suburban Propane Gas Corp
Taco Heaters Inc
Thrush H A & Co
Torbede Div Cleveland Steel Prod Corp
Trane Co
Triplex Heating Specialty Co Inc
Ulric Radiator Corp
Viking Mfg Corp
Vulcan Radiator Co
Waterfain Boiler
Wayne Home Equipment Co Inc
Well-McLain Co
Williams Oil-O-Matic Heating Co Div
York-Shipley Inc
Young Radiator Co

**Heating Systems, Radiant**

Allied Precision Indus Inc
Americo Industries
Bell & Gossett Co
Berko Electric Mfg Corp
Burgess-Manning Co
Burnham Corp Heating & Cooling Div
Byers A M Co
Cellheat Inc
Continental Radiant Glass Heating
Corona Mfg Corp
Electromode Div Commercial Controls
Trane Co
Triplex Heating Specialty Co Inc
Ulric Radiator Corp
Viking Mfg Corp
Vulcan Radiator Co
Waterfain Boiler
Wayne Home Equipment Co Inc
Well-McLain Co
Williams Oil-O-Matic Heating Co Div
York-Shipley Inc
Young Radiator Co
Insta-Matic Heater Co
Kritzer Radiant Coils Inc
Precision Parts Corp
Refiloformer Inc
Rempe Co
Stratton Terstegge Co
Sunward Inc
Taco Heaters Inc
Thermador Elce Mfg Co
Thruh H & A Co
Turkld Div
Utica Radiator Corp
Viking Mfg Corp
Vulcan Electric Co
Wesix Electric Heater Co
Wiegand Edwin L Co
York-Shipley Inc
Hemlock Lumber
(See Lumber, Hemlock)

Hinges
Acorn Mfg Co
Ajax Hardware Corp
Amerock Corp

Hoists, Truck
Cooffing Hoist Div
Equipment Div Young Spring & Wire
Gallon Allsteel Body Co
Gar Wood Industries Inc
Manning Maxwell & Moore Inc
McCabe Powers Body Co
Saggin Derrick Co
Shepard Niles Crane & Hoist Corp
Silent Hoist & Crane Co
Smith Hoist Mfg Co
Thor Power Tool Co
Tubular Structures Corp of America
Uhrden Inc
Witch Marketing Co

Hoods, Range
WOOD & FAN COMBINATION
MORGAN-WIGHTMAN
America's Wholesale Supply Center
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ST. LOUIS 65, MO.

Grand Specialties Co
Hewitt-Robins Inc
Ingersoll-Band Co
Jaeger Machine Co
King Mfg Co
Lewis-Shepard Products Inc
Louden Machinery Co
Manning Maxwell & Moore Inc
McCabe Powers Body Co
Muller Machinery Co Inc
Novo Pump & Engine Co
Patent Scaffolding Co
Pitman Mfg Co
Precoter Products Co
Reiman & Young Inc
Robbins & Myers Inc
Round David & Son Inc
Saggin Derrick Co
Silent Hoist & Crane Co
Smith Hoist Mfg Co
Uhrden Inc

Hoses, Manufactured
(See Directory of Home Manufacturers)

Humidifiers
Abbeon Supply Co
Ahlborn Div McGraw-Edison Co

Incentor
Amerock Corp
Bil-Jax Inc
Dayton Electric Mfg Co
Eaton Corp
Emerson-Pyne Co
Lennox Industries Inc
Mueller Climatrol Div
Research Products Corp
Skuttle Mfg Co
War Laboratories Inc
York Corp Sub Bost-Warner

Inclinators
Adams Co
Alco Mfg Co
American Inclinator Corp
Bastian-Morley Co Inc
Brale Inclinator Corp
Calculador Corp
Caloric Appliance Corp
Columbia Brick Works
Donley Brothers Co
Goder Joseph Inclinator
Henry Furnace Co
Holland Furnace Co
Inclinator Products Co
Industrial Iron Works
Kerner Inclinator Div
Lennox Industries Inc
Littke H C Burner Co
Locke Stokes Inc
Majestic Co Inc
Mastertv E L & Sons Inc
Northwest Metal Products Inc
Olsen C A Mfg Co
Outdoor Oven Fireplace Co
Suburban Propane Gas Corp
Syrlall Mfg Co

Insulators, Surveying
Berger C L & Sons
Booth-Brady Mfg Co
David White Instrument Div
Dietzgen Eugene Co
Glenoaby Inc
Goldblatt Tool Co
Hopkins Mfg Corp
Keuffel & Esser Co
Lufkin Rule Co
Morgan-Wightman Co
Starrett L S Co
Warren-Knight Co

Insulating Board, Plank & Tile
(See also Sheathing, Insulating Board)
Allied Chemical Corp Barrett Div
Armstrong Cork Co
Barley Mfg Co Inc
Celotex Corp
Cemex of Arizona
Cerex Tex Co
Cofeed Products Corp
Flinncoate Co
Forty-Ninth Insulations Inc
Insulite Div Minn & Ontario Paper Co
Johns-Manville Corp
Kaiser Gypsum Co Inc
National Gyepum Co
Paxton Frank Lumber Co
Plastergton Wall Board Co
Protective Products Co
Reynolds Aluminum Supply Co
Rubatex Div Of Great American Indus
Bubertoy Co
Simpson Timber Co
United States Gyepum Co
Wolverine Porcelain Enameling Co
Wood Conversion Co

Insulating Lath
(See Lath, Insulating)
Insulating Plaster
(See Plaster, Insulating)

Insulation, Aluminum Foil
Abbeon Supply Co
Alco Mfg Co
Alsco Inc
American Sisalcraft Corp
Cermex Tex Co

Inno, Inc
Amerock Corporation

INSULATORS
AMERICAN BUILDER
Corson G & W H Inc
Infra Insulation Inc
Janesville Cotton Mills
Kaiser Aluminum & Chemical Corp
Kaiser Aluminum & Chemical Sales Inc
Lehon Co
Lifeline Industries Inc
Lockport Mills Inc
Logan-Long Co
Ludlow Papers Div of Ludlow Corp
Ly-7-Alum Inc
Protective Papers Inc
Quaker State Metals Co
Refectal Corp Sub Borg Warner
Reynolds Aluminum Supply Co
Reynolds Metals Co
Ruberoid Co
Silvercote Prods Inc
Thornberry Paper Co
U S Mineral Wool Co
Wilson Grant Inc

**Insulation, Batt or Blanket, Cotton Fiber**
Barnhardt Mfg Co
Baldwin-Ehret-Hill Inc
Berger Insulation Co Inc
Certain-Teed Products Corp
Dodson Mfg Co Inc
Johns-Manville Corp
Forty-Eight Insulations Inc
Vermiculite-Northwest Inc

**Insulation, Batt or Blanket, Glass Fiber**
Armstrong Cork Co
Berger Insulation Co Inc
Certain-Teed Products Corp
Gustin-Bacon Mfg Co
Johns-Manville Corp
Forty-Eight Insulations Inc

**Insulation, Batt or Blanket, Mineral Wool**
Allied Chemical Corp
Bird & Son Inc
Carey Philip Mfg Co
Celecorp
Cemex Of Arizona
Certain-Teed Products Corp
Cree-Dipt Co Inc
Dierks Forests Inc
Flintkote Co
Homasote Co
Insulite Div Minnesota & Ontario Paper Co
Johns-Manville Corp
Kenney & Mattison Co
Logan-Long Co
National Gypsum Co
Paxton Frank Lumbo Co
Plastergon Wall Board Co
Reynolds Aluminum Supply Co
Ruberoid Co
Simpson Timber Co
Southern Pine Lumber Co
United States Gypsum Co
Weatherbest Corp
Wilson Grant Inc
Wood Conversion Co

**Insulation, Glass Cellular**
Pittsburgh Corning Corp
Reynolds Aluminum Supply Co

**Insulation, Granular Fill**
ACE Brick Co
Armstrong Cork Co
Berger Insulation Co Inc
Certain-Teed Products Corp
Dodson Mfg Co Inc
Forty-Eight Insulations Inc
Graybel C B & Sons
Great Lakes Carbon Corp Perlite Dept
Johns-Manville Corp
Reynolds Aluminum Supply Co
Ruberoid Co
Texas Vermiculite Corp
U S Mineral Wool Co
Vermiculite-Northwest Inc
Waylite Co
Wilson Grant Inc
Zonolite Co

**Insulation, Rigid Foamed Plastic**
Alride Inc
Bi-Products Corp
Consolidated General Prod Inc
Corson G & W H Inc
Dow Chemical Co
Gilman Bros Co
Nopco Chemical Co
Reeves Brothers Inc
Sterling Alderfer Co
Uni-Crest Div United Cork
United Cork Companies
U S Mineral Wool Co

**Insulation, Roof, Deck**
(See Decking Insulating)

**Insulation, Slat Edge**
Baldwin- Ehret-Hill Inc
Berger Insulation Co Inc
Certain-Teed Products Corp
Dow Chemical Co
Forty-Eight Insulations Inc
Meadows W R Inc
National Gypsum Co
Owens-Corning Fiberglas Corp
Ruberoid Co
Simpson Timber Co
Tiger Brands Inc Sub of Basic Inc
U S Mineral Wool Co

**Insulation, Spray On**
Bi-Products Corp
Ecrete Corp
Great Lakes Carbon Perlite Dept
Green A P Fire Brick Co
Kashey & Mattison Co
Mortell J W Co
Nopco Chemical Co
Quigley Co Inc
Sealtite Insulation Mfg Corp

**Texas Vermiculite Co**
U S Mineral Wool Co
Zonolite Co

**Intercoms & Radios**
Commercial Sound Div
Emerson Electric Mfg Co
Emerson-Pyne Co
Executone Inc
Fanon Electronic Industries Inc
Flush Wall Radio Co
Home Music Systems Inc
Kaer Engineering Corp
Morgan-Wightman Co
Motorola Communications & Electronics
Music & Sound Inc
NuTone Inc
Progress Mfg Co Inc
RCA Service Co Div of RCA
Rittenhouse Co Inc
Robert Mfg Co
Simpson Mark Mfg Co Inc
Swanson Mfg Co
Talk-A-Phone Co
Talk-A-Radio Mfg Co
Touch-Plate Mfg Corp
Trade-Wind Div Robbins & Myers Inc
Webster Electric Co

**Iron, Ornamental**
(See Ornamental Iron)

**Ironers, Built-In**
Armstrong Products Corp
Intrnite Co

**Jacks, Ceiling**
Coffing Hoist Div
Gypsum Ceiling Jack Co
Wolfe Products Inc

**Jams, Metal**
(See Frames, Door & Window)

**Joiners (See Planers & Joiners)**

**Joist Bridging**
(See Steel, Structural)

**Joists, Concrete, Precast**
Colorcrete Industries Inc
Flexicore Co Inc
Precast Products Co

**Joists, Steel**
Bethlehem Steel Co
Ceco Steel Prods Corp
Haven-Bush Co
International Steel Co
Jones & Laughlin Steel Corp
Laclede Steel Co
Macumber Inc
Penn Metal Co Inc
Republic Steel Corp
Republic Steel Corp Truscon Corp
Ryerson Joseph T & Son
Sheffield Div Armo Steel Corp
Stearn-Steel Corp Div Natl Steel Corp
United States Steel Corp
Woodside Engineering Co

**Kitchen Appliances**
(See Ranges & Ovens; also Refrigerators, etc.)

**Kitchen Cabinets, Metal**
Beautycraft Kitchens Div Miller Metal
Dwyer Products Corp
Eljer Co
General Electric Co Major Appliance
General Metalcraft Inc Olympia Div
General Motors Kitchens
Kelvinator Div American Motors Co
Kitcheneering Co of America
Kohler Co
Marvel Metal Products Co
Morgan-Wightman Co
Oakland Foundry Co
Republic Steel Corp
Republic Steel Corp Berkeley Div
St Charles Mfg Co
Standard Building Products Co
Toledo Desk & Fixture Co
United Metal Cabinet Corp
Lath, Gypsum
Allied Chemical Corp Barrett Div
Bestwall Gypsum Co
Celotex Corp
Flintkote Co
Grand Rapids Gypsum Co
Kaiser Gypsum Co Inc
National Gypsum Co
Rubberoid Co
United States Gypsum Co
Lath, Insulating
Bestwall Gypsum Co
Grand Rapids Gypsum Co
National Gypsum Co
Plasteron Wall Board Co
United States Gypsum Co
Lath, Metal & Accessories
Alabama Metal Lath Co Inc
B & T Metals Co
Boatwright Steel Lath Co
Casings Inc & Drywall Trim Div
Ceco Steel Prods Corp
Goldsmith Metal Lath Co
Inland Steel Products Co
Keystone Steel & Wire Co
Klauber Mfg Co
Manhattan Terrazzo Brass Strip
National Gypsum Co
Penn Metal Co Inc
Power Line Sales Inc
Republic Steel Corp Truscon Div
Reynolds Aluminum Supply Co
RichBraCo
Sanymetal Products Co Inc
United States Gypsum Co
Wheeling Corrugating Co
Laundry Tubs
(See Tubs, Laundry)
Levels, Carpenters & Masons
BerGER C L & Sons
Bostrum-Brady Mfg Co
Columbia Brick Works
Empire Level Mfg Co
General Hardware Mfg Co Inc
Goldblatt Tool Co
Graham John H & Co Inc
Hall Level & Mfg Works
Hydrolevel
Levelall
Mackinlough-Duncan Co
Mays Bros Tool Mfg Co
Miller's Falls Co
Oxwall Tool Co Ltd
Peerless Level & Tool Co
Pickett Products Inc
Port Austin Level & Tool Mfg Co
Sands Level & Tool Co
Schatz J H Mfg Co
Simplex Level Co
Stanley Tools
Starrett L S Co
Storrs John & Son Inc
Lighting Controls
(See Wiring Systems)
Mixers, Concrete
Mixers, Concrete (See Concrete Mixers)

Moldings, Hardboard
Afco Corp
Commonwealth Lumber Corp
Harris Hardwood Co Inc
Marsh Wall Products Inc
Tex-A-Panel Mfg Co

Moldings, Metal
Afco Corp
Alabama Metal Lath Co Ine
Alside Inc
Aluminum Co of America
B & T Metals Co
Barclay Mfg Co
Bendix Mouldings Inc
Blum Julius & Co Inc
Bovwick Steel Lath Co
Casing Inc & Drywall Trim Div
Central Metal Strip Co
Chamberlin Co of America
Chase Brass & Copper Inc
Colonial Moulding & Frame Co Inc
Covenevold Corp
Formetal Inc
Francis H & A Co Inc
Goldsmith Metal Lath Co
Inland Steel Products Co
Kawneer Co
Kinkead Industries Inc
Lifetimes Industries Inc
Loxscreen Co Inc
Macklanburg-Duncan Co
Marsh Wall Products Inc
Metal Trims Inc
Miraplas Tile Co
Mueller Brass Co
National Gypsum Co
National Metal Prods
National Window Corp
Nichols Wire & Aluminum Co
Parker S Hwde Mfg Corp
Penn Metal Co Inc
Pittsburgh Plate Glass Co
Prestile Mfg Co
Pyramid Mouldings Inc
Revere Copper & Brass Inc
Reynolds Aluminum Supply Co
Sears & Fabric Metal Corp
Roberts Co
Seck Walter E & Co
Superior Industries Inc
Tex-A-Panel Mfg Co
United Industries Inc
United States Gypsum Co
United States Plywood Corp
Vulcan Metal Prods Inc
Wallace Mfg Co
Wells Aluminum Corp
Werner B D Co Inc
Wheeling Corrugating Co
Winter Seal Corp
Woodside Engineering Co
Yck Mfg Co
Youngstown Mfg Co

Moldings, Plastic
Astor Floor Products Div Uvalde Rock
Blum Julius & Co Inc
Covenevold Corp
Francis H A & Co Inc
Hartglass Co
J A B Plastics Co Inc
Johnson Plastics Corp
Kentile Inc
Kessler Products Co
Marsh Wall Products Inc
National Plastic Products Co
United States Rubber Co

Moldings, Rubber
Asphalt Corp of America
Goodrich B F Co Flooring Products

Moldings, Wood (See Millwork & Moldings, Wood)

Mortor Boxes
Adams Co
Columbia Brick Works
Donley Brothers Co
General Engine Co Inc
Goldblatt Tool Co
Jackson Mfg Co
Kewanee Mfg Co
Newark Ladder & Bracket Co Inc
Vestal Mfg Co
Wood Shovel & Tool Co

Nailing Machines
Auto-Nailer Corp
Fastener Corp
Gang Nail Sales Co Inc
Independent Nail & Packing Co
Morgan Machine Co
Power Line Sales Inc
Powernull Co
Safety Nail Driver Corp
Spotnails Inc

Nails, Aliminum
Alside Inc
Aluminum Co of America
Chase Brass & Copper Inc
Diperafit Mfg Co
Hassall John Inc
Kaiser Aluminum & Chemical Corp
Kaiser Aluminum & Chemical Sales Inc
Lifetimes Industries Inc
Lyf-Alum Inc
Macklanburg-Duncan Co
Nichols Wire & Aluminum Co
Power Line Sales Inc
Powernull Co
Quaker State Metals Co
Reynolds Aluminum Supply Co
Reynolds Metals Co

Nails, Colored
American Nail & Wire Div US Steel Corp
Angell Nail & Chaplet Co
Hillwood Mfg Co
Maze W H Co
Mid-States Steel & Wire Co
Reynolds Aluminum Supply Corp
Roberoid Co

Nails, Common
Amer Steel & Wire Div US Steel Corp
Angell Nail & Chaplet Co
Bethlehem Steel Co
Chase Brass & Copper Inc
Colorado Fuel & Iron Corp
Columbia Georgia Steel Div US Steel
Continental Steel Corp
Jones & Laughlin Steel Corp
Keystone Steel & Wire Co
Maze W H Co
Mid-States Steel & Wire Co
Morgan-Wightman Co
Northwestern Steel & Wire Co
Reynolds Aluminum Supply Corp
Sheffield Div Armco Steel Corp
Tennessee Coal & Iron Div US Steel Corp
United States Steel Corp
Wickwire Bros Inc

Nails, Ring & Screw Type
Amer Steel & Wire Div US Steel Corp
Angell Nail & Chaplet Co
Bethlehem Steel Co
Chase Brass & Copper Inc
Colorado Fuel & Iron Corp
Colorado Fuel & Iron Corp
Continental Steel Corp
Deniston Co
Diperafit Mfg Co
E G Building Fasteners Corp
Hassall John Inc
Hillwood Mfg Co
Independent Nail & Packing Co
Keystone Steel & Wire Co
Maze W H Co
Mid-States Steel & Wire Co
Nichols Wire & Aluminum Co
Northern Steel & Wire Co
Reynolds Aluminum Supply Corp
Sheffield Div Armco Steel Corp
United States Steel Corp

Nails, Self-Locking
Amer Steel & Wire Div US Steel Corp
Angell Nail & Chaplet Co
Bethlehem Steel Co
E & G Building Fasteners Corp
ES/Products Inc
Hassall John Inc
Reynolds Aluminum Supply Co
United States Steel Corp

Nooks, Dining
Angle Co
Dormahts Co Inc
Oak Lumber (See Lumber, Oak)

Office Machines & Equipment
Allied/Egry Business Systems
American Photography Equipment Co
Burroughs Corp
Copyomatlon Inc
Commercial Sound Div
Cutler Metal Products Co
Dick A B Co
Diebold Inc
Elliot Industries Inc
Indiana Cash Drawer Co
International Business Machines Corp
Marchant Div of Smith-Corona
Minnesota Mining & Mfg Co
National Cash Register Co
Remington Rand Div Sperry Rand
Silver Bells Ltd
Smith-Corona Marchant Inc
Standard Register Co
Sunroc Corp
Underwood Corp
Victor Adding Machine Co
Woodall Industries Inc

Operators, Door (See Door Operators, Garage)

Ornamental Iron
Adams Co
Auer Register Co
Baugartner Gate Factory
Bellkool Co Inc
Blum Julius & Co Inc
Cincinnati Iron Fence Co Inc
Coffman R G Co Inc
Erdle Perforating Co Inc
Haven-Busch Co
Kingsford Ornamental Building Products
Locke Mfg Co
Logan Co
Metal Crafters
Meyers Fred L Mfg Co
Michel & Pflieger Iron Works Inc
Morgan-Wightman Co

Ornamental Iron
1000's of Stock and Custom Designs
Anything in Ornamental Metals
WRITE FOR NEW CATALOG

TENNESSEE FABRICATING CO.

Valley Metal Products
Versa Products Co
Woodward Lee L Sons

Ovens, Built-In (See Ranges & Ovens, Built-In)

Paint Removers
Carborundum Co
Ceraset Corp

AMERICAN BUILDER
Pennsil Chemicals Corp
Permagle Corp of America
Permeicon
Petersen D J Co Inc
Phelan-Feust Paint Mfg Co
Pittsburgh Plate Glass Co
Plystone Corp of America
Praet & Lambert Inc
Protectub Inc
Protection Products Mfg Co
Quartz Mosaic Inc
Quigley Co Inc
Reardon Co
Re-No-Ut Corp
Rockeote Paint Co
Rust-Oleum Corp
Sapolin Paints Inc
Sargent-Gerke Co
Seddon Co
Sedlitz Paint & Varnish Co
Shakertown Corp
Sherwin-Williams Co
Silicones Div Union Carbide
Silicones Products Dept General Electric
Smooth-On Mfg Co
Standard Dry Wall Products Inc
Steelcoat Mfg Co
Sullivan Co
Super Concrete Emulsions
Surface Sales Co
Tannas Industries Co
Tiger Brands Inc Sub of Basic Inc
Toch Bros
Tremco Mfg Co
Trucon Labs Inc
Tuferete Co Inc
Twentieth Century Paint & Varnish
United States Gypsum Co
Valspar Corp
Vita-Var Corp
Water-Dennis Corp
Wilbur & Williams Co
Wooster Sealkote Co
Yenkin-Majestic Paint Corp

Paints & Coatings, Roof
(Aluminum, White, Asphalt)

Abesto Mfg Co
Allied Chemical Corp Barrett Div
American Asbestos Product Co
Androc Chemical Co
Arco Co
BI-Products Corp
Borden Chemical Co Div Borden Co
Cabinet Samuel Inc
Calbar Inc
Camp Co Inc
Carver-Water Corp
Ceresit Corp
Chicago Bronze & Color Works
Coddington F D Mfg Co
Colorcrete Industries Inc
Cook Paint & Varnish Co
Daco Co Inc
Dayton Electric Mfg Co
Devoe & Reynolds Co Inc
Dixon Joseph Crucible Co
DuPont de Nemours & Co Inc E I
Elliott Paint & Varnish Co
Evercrete Corp
Fiberboard Paper Products Inc
Flexrock Co
Furnace-Form Co
Glidden Co
Globe Paint Works Inc
Horn A C Companies Div Sun Chem Corp
Joseph Paint & Varnish Co
Johnson’s Wax
Katy-Tile Co
Kyanite Paints Inc
Larsen Products Corp
Lastik Paint Inc
Lawrence W W & Co
Lowe Bros
Lucas John & Co Inc
McCuller Walter Co Inc
Marietta Paint & Color Co
Martin-Senour Co
Massy-Ferguson Inc Industrial Div
Minnesota Paints Inc
Mobile Paint Mfg Co
Monroe Co Inc
National Casein Co
National Chemical & Mfg Co
National Gypsum Co
National Lead Co
National Mfg Corp
National Pool Equipment Co
O’Brien Corp
Parker Irr & Sons
Peaselee-Gaulbert Paint & Varnish Co
Penn Crete Products Co
Pennsylvania Paint & Varnish Co
Permeicon
Permeico
Phelan-Feust Paint Mfg Co
Pittsburgh Plate Glass Co
Plystone Corp of America
Quigley Co Inc
Reardon Co
Re-No-Ut Corp
Rockeote Paint Co
Rust-Oleum Corp
Sapolin Paints Inc
Sargent-Gerke Co
Seddon Co
Sedlitz Paint & Varnish Co
Shakertown Corp
Sherwin-Williams Co
Silicones Div Union Carbide
Silicones Products Dept General Electric
Smooth-On Mfg Co
Standard Dry Wall Products Inc
Steelcoat Mfg Co
Sullivan Co
Super Concrete Emulsions
Surface Sales Co
Tannas Industries Co
Tiger Brands Inc Sub of Basic Inc
Toch Bros
Tremco Mfg Co
Trucon Labs Inc
Tuferete Co Inc
Twentieth Century Paint & Varnish
United States Gypsum Co
Valspar Corp
Vita-Var Corp
Water-Dennis Corp
Wilbur & Williams Co
Wooster Sealkote Co
Yenkin-Majestic Paint Corp

Paints & Coatings, Rock
(Plastic, Acoustical)

See Plaster, Acoustical
For color cards, write to
S A M U E L  C A B O T  I N C.

The choice of leading
builders! Cabot's Paints
and Stain Finishes for a
better job, inside and out.

For color cards, write to
S A M U E L  C A B O T  I N C.

The choice of leading
builders! Cabot's Paints
and Stain Finishes for a
better job, inside and out.
<table>
<thead>
<tr>
<th>Company Name</th>
<th>Location</th>
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<tbody>
<tr>
<td>Plastic Panels, Reinforced</td>
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<tr>
<td>Allied Chemical Corp Barrett Div</td>
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<td>Alkylene Div of Reichhold Chemicals Inc</td>
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<td>Barclay Mfg Co Inc</td>
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<td>Butler Mfg Co</td>
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<td>Chamberlin Co of America</td>
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<td>Cole Mfg Co</td>
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<td>Dipcraft Mfg Co</td>
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<td>Frost &amp; Loctech Mfg Co</td>
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<td>Fiberein Plastics Co</td>
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<td>Filon Plastics Corp</td>
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<td>Hasekite Mfg Div</td>
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<td>Johns-Mansville Corp</td>
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<td>Laaco Industries Inc</td>
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<td>Mirna Panels Corp</td>
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<td>Morgen-Wightman Co</td>
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<td>Munostructure Inc</td>
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<td>Mueller Brass Co</td>
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<td>Owens-Corning Fiberglas Corp</td>
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<td>Pennsylvania Wire Glass Co</td>
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<td>Pastel Products Corp</td>
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<td>Plywood &amp; Mfg</td>
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<td>Polyplastex United Inc</td>
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<td>Structglas Inc</td>
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<td>United States Plywood Corp</td>
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<td>United States Rubber Co</td>
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<td>Wasco Products Inc</td>
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<td>Plastic Pipe (See Pipe &amp; Tubing, Plastic)</td>
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<td>Plastic Screening (See Screening, Plastic)</td>
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<td>Plastic Tile (See Tile, Vinyl)</td>
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<td>Plate Glass (See Glass, Plate)</td>
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<td>Plumbing Fixtures (See also Shower Stalls; Vanities, Lavatory)</td>
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<td>Active Tool &amp; Manufacturing Co</td>
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<td>Alisamark Inc</td>
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<td>Chicago Faucet Co</td>
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<td>Powers Regulator Co</td>
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<td>Richmond Plumbing Fixtures</td>
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<td>Saniglas Inc</td>
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<td>Universal-Redux Corp</td>
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<td>Weis Henry Mfg Co</td>
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<td>Plumbing, Prefabricated, Assembly</td>
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<td>Aberdeen Plywood &amp; Veneers Inc</td>
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<td>Northwest Door Co Div St Regis Paper</td>
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<td>Pacific Lumber Co</td>
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<td>Paxton Frank Lumber Co</td>
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<td>Plywood Service Inc</td>
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<td>Summit Sales Co</td>
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<td>Sunset Plywood Co</td>
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<tr>
<td>Three Rivers Plywood &amp; Timber</td>
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<tr>
<td>Timber Products Co</td>
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<tr>
<td>Triples Lumber Co Inc</td>
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<tr>
<td>US Plywood Corp Mutual Plywood</td>
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<tr>
<td>United States Plywood Corp</td>
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<tr>
<td>Vancouver Plywood Co</td>
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<tr>
<td>Weyerhaeuser Co Lumber &amp; Plywood</td>
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<tr>
<td>Weyerhaeuser Co Roddis Div</td>
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<tr>
<td>Williamette Valley Lumber Co</td>
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<td>Woodward Lumber Co</td>
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<td>Youngblood Lumber Co</td>
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<td>Plywood, Embossed</td>
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<td>Evans Products Co</td>
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<td>Georgia Pacific Corp</td>
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<tr>
<td>Kuchton Plywood &amp; Veneer Co Inc</td>
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<tr>
<td>Midwest Plywood Co</td>
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<tr>
<td>Paxton Frank Lumber Co</td>
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<tr>
<td>Plywood Service Inc</td>
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<td>Ranier Plywood Co</td>
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<td>Simpson Timber Co</td>
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<td>Sunset Plywood Co</td>
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<td>U S Plywood Corp California Div</td>
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<td>United States Plywood Corp</td>
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<td>Vancouver Plywood Co</td>
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<td>Woodward Lumber Co</td>
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<td>Youngblood Lumber Co</td>
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<tr>
<td>Porch Enclosure Panels (See Plastic Panels, Reinforced)</td>
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<tr>
<td>Post-Hole Diggers</td>
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<tr>
<td>Danuser Machine Co</td>
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<tr>
<td>Ford Motor Co Tractor &amp; Implement</td>
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<tr>
<td>Tractor Dir International Harvester Co</td>
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</tbody>
</table>
World's Largest Manufacturer of Jack Posts & Columns

- Jack Post
- Adjustable Column
- Straight Column
- Lantern Post

WOLFE PRODUCTS INC
AKRON 5, OHIO

Woodmack Products Inc

Powder-Activated Tools
Hilti Rapid Fastening Systems Inc
Nelson Stud Driver Div
Omark Industries Inc
Ramset Fastening System
Remington Arms Co Inc

Power Plants
(See Generators, Portable)
Prefabricated Carports
(See Carports, Prefabricated)
Prefabricated Chimneys
(See Chimneys, Prefabricated)
Prefabricated Closets
(See Closets, Prefabricated)
Prefabricated Fireplaces
(See Fireplaces, Prefabricated)

Prefabricated Garages
(See Directory of Home Manufacturers)

Prefabricated Greenhouses
(See Greenhouses, Prefabricated)

Prefabricated Houses
(See Home Manufacturers Directory)

Prefabricated Outbuildings
(See Buildings, Metal)

Prefabricated Panels, Roof & Wall
Barclay Mfg Co Inc
Brown & Grist Inc
Carthage Marble Corp
Diperf Mfg Co
Fenestra Inc
Gang Nail Sales Co Inc
General Plastics Corp
Hera Mfg Co
Independent Lumber Co
Inland Steel Products Co
Mahon R C Co
Monstruction Inc
Mueller Brass Co
National Gypsum Co

Pumps, Adjustable, Floor Leveling & Supporting
Adjusta Post Mfg Co
Akron Products Co
Baumgartner Gate Factory
Clay Equipment Corp
Cleveland Steel Specialty Co
Copco Steel & Engineering Co
Goshen Churn & Ladder Inc
Holmes Mfg Co of Ohio
Inland Steel Products Co
Perma-Jack Corp
Sawhill Tubular Products Inc
Tel-O-Post Co
Tubular Structures Corp of America

Pumps, Booster, Heating
Aurora Pump Div New York Air Brake
Barnes Mfg Co
Bell & Gossett Co
Chicago Pump Co
Cranco
Dayton Electric Mfg Co
Decatur Pump Co
Deming Co
Dunham-Bush Inc
Dunkirk Radiator Corp
Everite Pump & Mfg Co Inc
Fairbanks Morse & Co
Gardner-Denver Co
Goulds Pumps Inc
Hoffman Specialty Mfg Corp
Jacuzzi Bros Inc
Lancaster Pump & Mfg Co Inc
Modern Swimming Pool Co Inc
Myers F E & Bros Co
Novo Pump & Engine Co
Pacific Pumping Co
Red Jacket Mfg Co
Taco Heaters Inc
Tait Mfg Co
Thrus H A & Co
Universal Mfg Co
Weir Pump Co
Worthington Corp

Pumps, Contractor
Aurora Pump Div New York Air Brake
Barnes Mfg Co
Buffalo Forge Co
C H & E Mfg Co
Chain Belt Co
Chicago Pneumatic Tool Co
Construction Machinery Co
Continental Pump Co
Dayton Electric Mfg Co
Deming Co
Demster Mill Mfg Co
Everite Pump & Mfg Co Inc
Fairbanks Morse & Co
Flinet & Walling Mfg Co Inc
Gorman-Rupp Co
Goulds Pumps Inc
Griffin Wellpoint Corp
Homelite Div Textrol Inc
Jacuzzi Bros Inc
Jaeger Machine Co
Kenco Pump Div
Lancaster Pump & Mfg Co Inc
Marlow Pumps Div Bell & Gossett Co
Master Mechanic Mfg Co
Midland Products Co
Morrison Co
Novo Pump & Engine Co
Pacific Mercury Electronics
Pacific Pumping Co
Peerless Pump Hydraulics Div
Red Jacket Mfg Co
Rice Pump & Machine Co
Robbins & Myers Inc
Tait Mfg Co
Universal Mfg Co
Worthington Corp

Pumps, Domestic Water Supply
Aeromotor Div Motor Products Corp
Barnes Mfg Co
Clayton Mark & Co
Continental Pump Co
Dayton Electric Mfg Co
Decatur Pump Co
Deming Co
Decster Mill Mfg Co
Everite Pump & Mfg Co Inc
Fairbanks Morse & Co
Flinet & Walling Mfg Co Inc
Gorman-Rupp Co
Goulds Pumps Inc
Griffin Wellpoint Corp
Homelite Div Textrol Inc
Jacuzzi Bros Inc
Jaeger Machine Co
Kenco Pump Div
Lancaster Pump & Mfg Co Inc
Marlow Pumps Div Bell & Gossett Co
Master Mechanic Mfg Co
Midland Products Co
Morrison Co
Novo Pump & Engine Co
Pacific Mercury Electronics
Pacific Pumping Co
Peerless Pump Hydraulics Div
Red Jacket Mfg Co
Rice Pump & Machine Co
Robbins & Myers Inc
Tait Mfg Co
Universal Mfg Co
Worthington Corp

Quarry Tile
(See Tile, Quarry)

Raceways
(See Conduits & Raceways)

Radial Saws
(See Saws, Radial)

Radiators, Baseboard
American-Standard Plumbing & Heating
Berko Electric Mfg Corp
Burnham Corp Heating & Cooling
Crane Co

McDonald A Y Mfg Co
Morrison Co
Myers F E & Bros Co
Pacific Pumping Co
Red Jacket Mfg Co
Robbins & Myers Inc
Sumo Pumps Inc
Tait Mfg Co
Thrus H A & Co
Uniflow Mfg Co
Universal Mfg Co
Wayne Home Equipment Co Inc
Weir Pump Co

Aurora Refrigeration Inc
American Furnace Co
Aurora Pump Div
Burnham Corp Warm Air & Cooling Div
Carrier Corp
Coleman Co Inc
Day & Night Mfg Co
General Electric Co Air Conditioning
Gilson Refrigerator Sales Corp
Holly-General Co Div
Jacuzzi Bros Inc
Krene-Stamm Mfg Co
Lennox Industries Inc
Mueller Climatrol Div Worthington Corp
Perfection Industries Div
Reeco Inc
Trane Co
Tyrphoon Heat Pump Co Div Hupp Corp
Weil air Conditioning & Heating
York Corp Sub Borgia-Warner

Aeromotor Div Motor Products Corp
Aurora Pump Div New York Air Brake Co
Barnes Mfg Co
Chicago Pneumatic Tool Co
Chicago Pump Co
Clayton Mark & Co
Construction Machinery Co
Dayton Electric Mfg Co
Decatur Pump Co
Deming Co
Demster Mill Mfg Co
Everite Pump & Mfg Co Inc
Fairbanks Morse & Co
Flinet & Walling Mfg Co Inc
Gardner-Denver Co
Gorman-Rupp Co
Goulds Pumps Inc
Griffin Wellpoint Corp
Homelite Div Textrol Inc
Jacuzzi Bros Inc
Jaeger Machine Co
Kenco Pump Div
Lancaster Pump & Mfg Co Inc
Le Roi Div Westinghouse Air Brake Co
Marlow Pumps Div Bell & Gossett Co
Milwaukee Faucets Inc
Morgan-Wightman Co
Myers F E & Bros Co
Oro Mfg Co
Pacific Pumping Co
Peerless Pump Hydraulics Div
Penberthy Mfg Co
Red Jacket Mfg Co
Remington Arms Co Inc
Sin-Jin Products Co
Standard Electric Mfg Co Inc
Tait Manufacturing Co
Thor Power Tool Co
Triplex Heating Specialty Co Inc
Uniflow Mfg Co
Universal Mfg Co
Wayne Home Equipment Co Inc
Weir Pump Co

Turn to Section 3—Manufacturers Directory for all addresses
Reinforcing Bars & Mesh
(See also Steel, Masonry Wall Reinforcing)
Amer Steel & Wire Div US Steel Corp
Bethlehem Steel Co
Ceco Steel Prods Corp
Cleveland Steel Specialty Co
Colorado Fuel & Iron Corp
Continental Steel Corp
Dayton Sure-Grip & Shore Co
Forbes Steel Corp
Jones & Laughlin Steel Corp
Kaiser Aluminum & Chemical Sales Inc
Laclede Steel Co
Northwestern Steel & Wire Co
Republic Steel Corp Truscon Div
Ryerson Joseph T & Son
Sheffield Steel Co
United States Steel Corp
Youngstown Sheet & Tube Co

Roof Decks
(See Docking)
Reinforcing Shingles
(See Shingles)
Roofing, Aggregates For
Kaiser Aluminum & Chemical Corp
Williamson-Little Stone Div
Roofing, Asbestos Cement
Ahsa Mfg Co
Allied Chemical Corp Barrett Div
Carey Philip Mfg Co
Cerritex Corp
Certain-Teed Sales Corp
Fiberboard Paper Prods Inc
Flintkote Co
Johns-Manville Corp
Keasby & Mattison Co
Laetik Paint Inc
Logan-Long Co
Monroe Co Inc
National Gypsum Co
Pecora Inc
Reynolds Aluminum Supply Co
Ruberoid Co
Rutland Fire Clay Co
Sonneborn Chemical & Refining Corp
Sullivan Co
Superior Corp of N Y
Roofing, Asphalt
Allied Chemical Corp Barrett Div
American Bitumuls & Asphalt Co
Bird & Son Inc
Borden Chemical Co Div Borden Co
Carey Philip Mfg Co
Celtex Corp
Certain-Teed Products Corp
Fiberboard Paper Prods Inc
Flintkote Co
Fry Lloyd A Roofing Co
Globe Roofing Products Co Inc
Horn A Companies
Johns-Manville Corp
Keasby & Mattison Co
Laetik Paint Inc
Lebanon Co
Logan-Long Co
Monroe Co Inc
National Gypsum Corp
Owens-Corning Fiberglas Corp
Plexitone Corp of America
Protective Paints Inc
Reynolds Aluminum Supply Co
Ruberoid Co
Sonneborn Chemical & Refining Corp
United States Gypsum Co
Roofing, Copper
Anacostia American Brass Co
Bridgeport Brass Co
Chase Brass & Copper Inc
Hussey C G & Co
Revere Copper & Brass Inc
Reynolds Aluminum Supply Co
Roofing Shingles
(See Shingles & Shakes)
Roofing & Siding, Aluminum
(See also Siding, Aluminum Clapboard)
Ailsde Inc
Aluminum Co of America
Edco Products Inc
Hess Mfg Inc
Kaiser Aluminum & Chemical Corp
Kaiser Aluminum & Chemical Sales Inc
Lyl-Ahum Inc
Mastic Corp
Monroe Co Inc
Nichols Wire & Aluminum Co
Quaker State Metals Co
Revere Copper & Brass Inc
Reynolds Aluminum Supply Co
Reynolds Metals Co
Ryerson Joseph T & Son
U S Aluminum Siding Corp
Winter Seal Corp
Roofing, Steel
Bethlehem Steel Co
Continental Steel Corp
Granite City Steel Co
Inland Steel Products Co
Macomber Inc
Plasteel Products Corp
Reeves Std & Mfg Div
Republic Steel Corp Truscon Div
Reynolds Aluminum Supply Co
Ryerson Joseph T & Son
United States Steel Corp
Woodside Engineering Co
Roofing, Terne Metal
Ceco Steel Prods Corp
Fallanbree Steel Corp
Inland Steel Products Co
Kuehle Mfg Co
Kuehle Steel & Mfg Co Div
Reynolds Aluminum Supply Co
United States Steel Corp
Roofing, Tile
(See Tile, Roofing)
Room Dividers
(See Partitions)
Routers & Shapers, Electric
Beach Mfg Co
Black & Decker Mfg Co
Boice Crane Co
Consolidated Mach & Supply Co Ltd
Duro Metal Products Co
Ekstrom Carlsons & Co
Oliver Machinery Co
Porter-Cable Machinery Co
Rockwell Mfg Delta Power Tool Div
Skill Corp
Stanley Electric Tools
Wallace J D Co Inc
Whitney Winton D & Son Inc
Yates-American Machine Co
Rubber Flooring
(See Tile, Rubber)
Safes, Wall, Built-In
Diebold Inc
Melnik Steel Safe Co
Salamanders
(See Heaters, Contractors, Portable)
Sanders
Albertson & Co Inc
American Floor Machine Co
Atlas Floor Surfacing Machinery Corp
Atlas Press Co
Beach Mfg Co
Behr-Manning Co
Black & Decker Mfg Co
Bhm Julius & Co Inc
Boice Crane Co
Burgess Vibrators Inc
Carborundum Co
Chicago Pneumatic Tool Co
Clarke Floor Machine Co Div
Cummings Portable Tools Div
Dayton Electric Mfg Co
DeWalt Inc
Dunoyer Corp
Due Metal Products Co
Ekstrom Carlson & Co
Grinding & Polishing Mach Corp
Holt Mfg Co
Kysseisen Machine Works
Merit Products Inc
Mills Falls Co
Milwaukee Elec Tool Corp
National-Detroit Inc
Oliver Machinery Co
Peninsula Tool Co Inc
Portable Electric Tools Inc
Porter-Cable Machinery Co
Remington Arms Co Inc
Rockwell Mfg Delta Power Tool Div
Skill Corp
Speedway Mfg Div Thor Power Tool Co
Stanley Electric Tools
Thor Power Tool Co
Wayne Products Inc
Yates-American Machine Co
Sash
(See Windows & Doors,
Combination)
Sash Balances
(See also Hardware,
Window)
Allmetal Weatherstrip Co
Allmetal Mfg Co
Central Metal Strip Co
Central Cabinet Mfg Co
Farley & Loetscher Mfg Co
Goben Sash & Door Co
Grand Rapids Hardware Co
Ideal Brass Works Inc
Industial Iron Works
Lock-Joint Window Co
Mackenberg-Duncan Co
Master Metal Strip Service Inc
Precision Weatherstrip Co
Pullman Mfg Corp
Sager Weatherstrip & Casulking
Turner & Seymour Mfg Co
Unique Window Balance Corp
Weatherproof Products Corp
Zeiger Inc
Sawing Equipment
Cenatrus Industries
Foley Mfg Co
Saws, Band
(See Tools, Carpenter, Hand)
Saws, Chain, Tree Felling
Atkins Saw Div Borg-Warner
Dayton Electric Mfg Co
General Engine Co Inc
Homelite Div Textron Inc
Lancaster Pump & Mfg Co Inc
Milwaukee Elec Tool Corp
Morgan-Wightman Co
Porter-Cable Machinery Co
Remington Arms Co Inc
Saws, Circular
Albertson & Company Inc
American Woodworking Machinery Co
Atkins Saw Div Borg-Warner
Atkins Saw Div Borg-Warner
Atlas descend Co
Beach Mfg Co
Beloew Machinery Co
Black & Decker Mfg Co

Turn to Section 3—Manufacturers Directory for all addresses
Saws, Sabre
American Floor Machine Co
Cummins Portable Tools Div
Dayton Mfg Co
Diastor Div H K Porter Co Inc
Dormeyer Corp
Miller George E Lumber Co
Skill Corp
Peninsula Tool Co Inc
Portable Electric Tools Inc
Porter-Cable Machine Co
Rockwell Mfg Delta Power Tool Div
Scaffolding & Shoring
(Saw also Posts, Adjustable)
Ajax Building Bracket Co
Amison Engineering Co
Ballymore Co
Bever Advance Corp
Bill-Jax Inc
Conver Steel & Wire Co
Dayton Sure-Grip & Shore Co
Do-All Scaffold Bracket Co
Duo-Safety Ladder Corp
Farwell Metal Fabricating
Goldblatt Tool Co
Goshen Churn & Ladder Inc
Hico Corp of America
Holitsma Adjustable Scaffold Bracket Co
Holland Ladder & Mfg Co
Louisville Ladder Co
Marvel Equipment Corp
Mauk Seattle Lumber Co
Michigan Ladder Co
Morgen Mfg Co
Moulton Ladder Mfg Co
Newark Ladder & Bracket Co Inc
Olympic Foundry Co
Patent Scaffolding Co
Pittsburgh Plate Glass Co
Rein & Georger Inc
Rich Howard B Inc
Richbilt Mfg Co
Safe-Way Stel Products Inc
Screw & Bolt Corp of America
Scr Brick
(See Brick, SCR)
Screening Machines, Concrete
(See Concrete Finishing Machines)
Screen Hardware
(See Hardware, Screen & Storm Sash)
Screening, Louver Type
Aiso Inc
Kaiser Aluminum & Chemical Corp
Kaiser Aluminum & Chemical Sales Inc
Tyrer Arthur F Co
Screening, Metal Wire
Alabama Wire Mfg Co
Aluminum Co of America
American Steel & Wire Div
Chamberlin Co of America
Chase Brass & Copper Inc
Colorado Fuel & Iron Corp
Cyclone Fence Dept Amer Steel & Wire
DeVesc Inc
Gilbert & Bennett Mfg Co
Hanover Wire Cloth Div
Heilig Bros Co
Hettick W E & Son Co
Ida Products Co
Keystone-Seneca Wire Cloth Co
Lai Productions Co
New York Wire Cloth Co Inc
North East Metal Products Corp
Peerless Mfg Co Inc
Reynolds Aluminium Supply Co
Royal Jalousie Co
Seneca Wire & Mfg Co
United States Steel Corp
Wickwire Bros Inc
Screening, Plastic
Victories Mills Inc Lumite Div
Devac Inc
Evergreen States Forest Products
Firestone Synthetic Fibers Co
Graham John H & Co Inc
Hittick W E & Son Co
New York Wire Cloth Co Inc
Owens-Corning Fiberglas Corp
Peerless Mfg Co Inc
Plastic Woven Prods
Reynolds Aluminum Supply Co
Royal Jalousie Co
Screws, Tension
Columbia Mills Inc
Durall Products Co
Grosset & Sons Co
Keystone-Seneca Wire Cloth Co
Lockhart Mfg Corp
Lockscreen Co Inc
Resellect Corp Sub Borg Warner
Reynolds Aluminum Supply Co
Rugger-Lang Co
Seneca Wire & Mfg Co
Southern Sash Sales & Supply Co
Sporke Sash & Door Co
Screws, Windows
(See Windows & Doors, Combination)
Screwdrivers
(See Tools, Carpenter, Hand)
Screwdrivers, Portable, Electric
Black & Decker Mfg Co
Blum Julius & Co Inc
Chicago Pneumatic Tool Co
Cummins Portable Tools Div
Ingersoll-Rand Co
Mills & Falls Co
Milwaukee Elec Tool Corp
Porter-Cable Machine Co
Reynolds Aluminum Supply Co
Skill Corp
Speedway Mfg Div Thor Power Tool Co
Stanley Electric Tools
Supreme Products Corp
Thor Power Tool Co
Screws
Aluminum Co of America
Arro Expansion Bolt Co
Blum Julius & Co Inc
Chicago Pneumatic Tool Co
Independent Nail & Packing Co
Lamson & Sessions Co
Leigh Building Products Div
Mackinaw-Duncan Co
Medalist Hardware Div
National Lead Co
Paine Co
Parker & Hardware Mfg Corp
Ramset Fastening System
Republic Steel Corp
Screw & Bolt Corp of America
Southern Screw Co
Stanscrew Fasteners Div Standard Screw Co
Sealers, Concrete
(See Concrete Hardeners & Sealers)
Sealers & Finishes
(See Finishes & Sealers)
Septic Tanks, Clay
American Vitrified Prods Co
Cannellan Sewer Pipe Co
Clay City Pipe Co
Interstate Brick Co
Kaul Clay Co
Logan Clay Prods Co
Nasco Corp
Owensboro Sewer Pipe Co
Shake-a-Ply

8-ft. Shake Panels • Box 7, N. Portland, Ore.

Shapers
(See Routers & Shapers)

Sheathing, Gypsum (See also Wallboard & Sheathing)

Sheathing, Asphalt (See Roofing, Asphalt)

Shingles, Asbestos Cement (See Roofing, Asbestos Cement)

Shingling, Insulating Board (See also Insulation Board, Fiber)

Shoring, Horizontal (See also Scaffolding & Shoring)

Turn to Section 3—Manufacturers Directory for all addresses
LOWER COSTS & INSTALLATION TIME
ALSCO
Rigid
BAK-R-FOAM®
Aluminum Siding
...applies directly to the studs, no underlay materials needed!
*Patent Pending
Write for ALSCO’s BUILDER’S DIGEST
ALSCO, Inc., Box AS-86, Akron 8, Ohio

Chamberlin Co of America
Crown Aluminum Industries Corp
Globe Roofing Products Co Inc
Dipcraft Mfg Co
Edco Products Inc
Flintkote Co
Globe Roofing Products Co Inc
Hastings Aluminum Products Inc
Keystone Alloys Co
Lifet ime Industries Inc
Logan-Long Co
Lyt-Alum Inc
Mastic Corp
Morgan-Wightman Co
National Metal Prods
Orchard Bros Inc
Quaker State Metals Co
Reese Metal Weatherstrip Co
Reynolds Aluminum Supply Co
Rosboro Lumber Co
United States Plywood Corp
Youngblood Lumber Co
Siding, Steel
Bethlehem Steel Co
Continental Steel Corp
Granite City Steel Co
Reeves Steel & Mfg Co Div
Republic Steel Corp Truscon Div
Tennison Bros Inc
United States Steel Corp
Woodside Engineering Co
Siding, Underliner, Insulating
(See Sheathing, Insulating)
Siding, Wood
(See also Lumber; Shingles)
Aloha Lumber Corp
Arca Redwood City
Arrow Tank Co Inc
Bradley Southern Div Fitchet Forests
Capilano Timber Co Ltd Diamond Lumber Co
Dierske Forests Inc
Georgia Pacific Corp
Goodman Lumber Co
Humble Lumber Co
Inwal-Wool Insulation Corp
Jones Veneer & Plywood Co
Mack Seattle Lumber Co
McMinnville Lumber Co
Ozan Lumber Co
Pacific Lumber Co
Paxton Frank Lumber Co
Pope & Talbot Inc
Rood Lumber Co
Seattle Cedar Lumber Mfg Co
Shake-A-Ply Co

Shake-a-Ply®
CUTS
COSTS

2-ft. Shake Panels • Box 7, N. Portland, Ore.

Summit Sales Co
Union Lumber Co
Upson Co
Weyerhaeuser Co Lumber & Plywood
Willits Redwood Products Co

Sinks, Metal or Stainless Steel
Active Tool & Manufacturing Co
Aerona Co Mfg Co Metal Products Div
American-Standard Plumbing & Heating Div
Boro Wood Products Co Inc
Caloric Appliance Corp
Carrollton Mfg Co
Columbus Mfg Co
Coplay Corp
Dustless Paint Co
Ekco Products Co
Elior Co
Elkay Mfg Co
Farwell Metal Fabricating
Geneva Modern Kitchens
Legion Stainless Sink Corp
Lyon Inc
Paxton Frank Lumber Co
Tennessee Stove Works
Textile Cabinet Corp
Universal-Bundle Corp
Vance Industries Inc

Sinks, Porcelain Enamel
(See Plumbing Fixtures)

Skylights
Allied Chemical Corp Barrett Div
Chevron Co
Consolidated General Prod Inc
Dipcraft Mfg Co
Johnson-Manville Co
Kelite Mfg Co
Pennsylvania Wire Glass Co
Plasteco Inc
Rohn & Hass Co
Structural Leg Inc
Tiffany Mfg Co Inc
Wasco Products Inc

Slates
Fond du Lac Stone Co Inc
North Bangor Slate Co
Western States Stone Co

Sliding Doors, Windows
(See Doors, Sliding; also
Windows, Horizontal)

Spray Guns, Paint
(See Paint Sprayer Guns)

Stains
(See Paints, Interior & Exterior, Oil)

Stairs, Noising For
American Abrasive Metals Co
Angellia Hardwood Sales Co
B & T Metals Co
Blum Julius & Co Inc
Bradley Southern Div
Central Metal Strip Co
Crown Rubber Co
Francis H A & Co Inc
Harris Hardwood Co Inc
Harris Mfg Co
J & B Plastics Co Inc
Mackalmburg-Duncan Co
Metal Crafters
Moore Goodlone B Inc
Paxton Frank Lumber Co
Southern Mill & Mfg Co
Wooster Products Inc

Stairs, Steel, Stullar
(See Doors, Cellar, Bulkhead)

Stairs, Treads For
American Mat Corp
Angellia Hardwood Sales Co
Blum Julius & Co Inc
Bradley Southern Div
Carborundum Co
Cloud Oak Flooring Co
Crown Rubber Co
Drafo Corp
Farley & Loetscher Mfg Co
Goodrich B F Co Flooring Products
Harris Hardwood Co Inc
Hardwood Corp of America
Harris Mfg Co
Jones & Laughlin Steel Corp
Mumon R C Rubber Co
Norton Co
Paxton Frank Lumber Co
Robbins Floor Products Inc
Wooster Products Inc

Stairways, Disappearing

DISAPPEARING STAIRS
3 Great Lines—Prepackaged
Factory assembled for easy installation
WRITE FOR NEW CATALOG

Bessler Disappearing Stairway
Craftwood Products
EZ-Way Sales Inc
Fabricon Co
Farley & Loetscher Mfg Co
Goshen Sash & Door Co
Newark Ladder & Bracket Co Inc
Precision Parts Corp
Reynolds Aluminum Supply Co
Richbilt Mfg Co

54 AMERICAN BUILDER
Tennessee Fabricating
Wel-Bilt Products Co
Stairways, Steel
Metal Crafters
Michel & Pfeffer Iron Works Inc
National Structural Steel Corp of America
United States Steel Corp
Valley Metal Products
Staplers, Tackers & Staples
Arrow Fastener Co Inc
Automation Fastening Co Inc
Bostitch
Copeland Steel Co Wire & Cable Div
Everwarm Inc
Fastener Corp
Hillwood Mfg Co
Markwell Mfg Co Inc
Mid-States Steel & Wire Co
Power Line Sales Inc
Signode Steel Strapping Co
Spintrails Inc
United States Steel Corp
Steel, Masonry Wall Reinforcing
(A See also Reinforcing Bars & Mesh)
A A Wire Products Co
Carter-Waters Corp
Cleveland Steel Specialty Co
Conver Steel & Wire Co
Dayton Sure-Grip & Share Co
Dur O Wadley Div Cedar Rapids Block Co
Keystone Steel & Wire Co
Laclede Steel Co
Lewawe Peerless Inc
Robertson Steel & Iron Co
United States Steel Corp
Steel, Structural
(See also Studdings & Channels, Steel)
Adjusta Post Mfg Co
Baumgarter Gate Factory
Bethlehem Steel Co
Butler Mfg Co
Byers A M Co
Colorado Fuel & Iron Corp
Columbia Geneva Steel Div US Steel
Copco Steel & Engineering Co
Cuckler Steel Span Co
Flash Bridge Co
Haven-Bush Co
Inland Steel Co
International Steel Co
Jones & Laughlin Steel Corp
Kaiser Steel Corp
Keer P D Mfg Co
Laclede Steel Co
MacComber Inc
Mahon R Co
Morgan-Wightman Co
Northwestern Steel & Wire Co
Penn Metal Co Inc
Republic Steel Corp
Ryerson Joseph T & Son
Sheffield Div Armco Steel Corp
Sisam-Steel Corp Div Natl Steel Corp
Syra Steel Co
Tabor Businell Inc
Tennessee Coal & Iron Div US Steel
Timber Engineering Co
Tennessee Stone Co Inc
Stone, Granite
North Carolina Granite Corp
Tamms Industries Co
Vermont Marble Co
Stone, Limestone
Bloomington Limestone Corp
INDIANA LIMESTONE VENERE
for Distinctive Homes
THE BLOOMINGTON LIMESTONE CORP.
BLOOMINGTON, INDIANA
Corson G & W H Inc
Fond Du Lac Stone Co Inc
Georgia Marble Co
Indiana Limestone Co Inc
Longview Lime Corp
San-Tex Stone Quarry Inc
Tiger Brands Inc Sub of Basic Inc
Woolery Stone Co Inc
Stone, Marble
Carthage Marble Corp
Georgia Marble Co
Stone Products Co
Tamms Industries Co
Vermont Marble Co
Stone Patching Compounds
(See Paints & Coatings,
(Concrete)
Stone, Palos Verdes
Palos Verdes Stone Dept
Stone, Slate (See Slate)
Stone, Veneer, Synthetic
Alco Inc
Featherock Inc
General Concrete Products Inc
Perma-Stone Co
Stone Products Co
Stone Fronts
American Art Metals Co
Davidson Enamel Products Inc
Hastings Aluminum Products Inc
Ingram-Richardson Mfg Co
Kawneer Co
Libbey-Owens-Ford Glass Co
Lustron Inc
Marmet Corp
Metal Trims Inc
Pittsburgh Plate Glass Co
Reynolds Aluminum Supply Co
Toledo Plate & Window Glass Co
United States Plywood Corp
Wolvinere Porcelain Enameling Co
Storm Windows
(See Windows & Doors,
Combination)
Structural Steel
(See Steel, Structural)
Stucco, Pre-Mixed
Coddington B D Mfg Co
Colorstone Industries Inc
Penn Crete Products Co
United States Gypsum Co
Stucco, Septic, Clay
(See Septic Tanks, Clay)
Tanks, Septic, Steel
(See Septic Tanks, Steel)
### Tapes
- Behr-Manning Co
- Durkee-Atwood Co
- Evans Rule Co
- Goodfellow Bros
- Goring Plastics Div
- John-Manville Corp
- Kordite Co
- Lufkin Rule Co
- National Gypsum Co
- Pittsburgh Plate Glass Co
- Rose Bros Inc
- Rohe Justus & Sons
- Stanley Tools
- Starrett L & S Co
- Wilson Grant Inc

### Topping Machines, Drywall
- Goldblatt Tool Co

### Tarpaulins
- Arvey Corp
- Berg F O Co
- Delta Co
- Fulton Cotton Mills
- Gering Plastics Div of Studebaker-Packard Corp
- Goodrich B F Industrial Products Co
- Goss J C Co
- Hoosier Tarpaulin & Canvas Goods Co
- Kordite Co
- Newark Ladder & Bracket Co Inc
- Richcraft Co
- Thimlany Pulp & Paper Co
- Tiger Brands Inc Sub of Basic Inc
- Tucker Duck & Rubber Co
- Visking Co

### Television Antennas
*(See Antennas, TV)*

### Tension Screens
*(See Screens, Tension)*

### Termite Shields & Controls
- Allied Chemical Corp Barrett Div
- Bird & Son Inc
- Cabot Samuel Inc
- Cre-O-Tox Chemical Co
- Dow Chemical Co
- Inland Steel Products Co
- Monsanto Chemical Co Organic Chem Div
- National Mfg Corp
- Phen-X-Paint Mfg Co
- Shell Chemical Co
- Sullivan Co
- Velcor Chemical Corp
- Wood Treating Chemicals Co

### Thresholds
- Adams Co
- Allmetal Weatherstrip Co
- Aluminum Co of America
- Aluminum Industries
- Anacord American Brass Co
- Angelina Hardwood Sales Co
- B & T Metals Co
- Blum Julius & Co Inc
- Bradley Southern Div Potlatch Forests
- Ceco Steel Prods Corp
- Central Metal Strip Co
- Chamberlin Co of America
- Chase Brass & Copper Inc
- Chicago Metal Strip Co
- Curtis Companies Inc
- Dennis W J & Co
- Donley Brothers Co
- Duraflex Co
- Francia H A & Co Inc
- Georgia B F Co Flooring Products
- H-C Products Co
- Harris Mfg Co
- Kaiser Aluminum & Chemical Sales Inc
- Kawneer Co
- Macklinburn-Duncan Co
- Master Metal Strip Service Inc
- Metal Crafters
- Miraplas Tile Co
- Moloney Co
- Morgan-Wightman Co
- National Forest Prods Co
- National Metal Prods

### National Window Corp
- Parker & Hardware Mfg Corp
- Paxton Frank Lumber Co
- Pennzo Mfg Co
- Reynolds Aluminum Supply Co
- Reynolds Metals Co
- Royal Jalousie Co
- Safety-Perf Ex Exsures Div
- Sager Weatherstrip & Celuloid
- Sentry Stop-A-Draft Co
- Southern Sash Sales & Supply Co
- Storm King Corp
- Sun Screen Products Co
- Superior Industries Inc
- Trego Industries
- United Industries Inc
- United Steel Products Co
- Vlador Co
- Weatherproof Products Corp
- Wells Aluminum Corp
- Werner B D Co Inc
- Wooster Products Inc
- Youngstown Mfg Inc

### Ties, Concrete Form
*(See Concrete Form Ties)*

### Tile, Acoustical
*(See Acoustical Materials)*

#### Tile, Asphalt, Floor
- Armstrong Cork Co
- Arock Floor Prods Div Utah Rock
- Congoleum-Nairn Inc
- Flinthakote Co
- Forman-Ford & Co
- Goodrich B F Co Flooring Products
- John-Manville Corp
- Kentile Inc
- Mastic Tile Div Ruberoid Co
- Ruberoid Co
- Thomas Moulding Floor Co Inc

#### Tile, Ceramic, Floor & Wall
- American Olean Tile Co
- Amsterdam Corp
- Associated Plumbing Supply Co Inc
- Atoe Ceramics Corp
- Cambridge Tile Mfg Co
- Columbia Brick Works
- Design Techines
* Gladding McBean & Co
* Hood Ceramic Corp
- Malvern Flower Lining Co
- Martin Pool Equipment Co
- Marsh Wall Products Inc
- Miraplas Tile Co
- Misceramic Tile
- Morton Ceramic Tile Co
- Mosaic Tile Co
- Natco Corp
- National Pool Equipment Co
- National Tile & Mfg Co
- Norton Co
- Oxford Tile & Porcelain Co
- Oxford Tile Div
- Pacific Tile & Porcelain Co
- Pomona Tile Mfg Co
- Selzle Walter & Co
- Stylon Corp
- Summitville Tiles Inc
- Three Centuries
* Tilemaster Corp
* United States Ceramic Tile Co
* Wescel Tile Co

### Tile, Cork, Floor
- Armstrong Cork Co
- Dodge Cork Co Inc
- Forman-Ford & Co
- Kentile Inc
- Robbins Floor Products Inc

### Tile, Drain
- Acme Shale Brick Co Inc
- Bewerstone Shale Co
- Builders Brick Co
- Interstate Brick Co
- Robinson Clay Product Co

### Tile, Glazed
- American Olean Tile Co
- Amundram Corp
- Eglit-Standard Brick Mfg Co
- Illinois Brick Co
- Interstate Brick Co
- Malvern Flower Lining Inc
- Mason City Brick & Tile
- Mosaic Tile Co
- Nates Corp

### Tile, Insulating
*(See Insulating Board)*

#### Tile, Linoleum, Floor
*(See Linoleum Roll & Tile)*

#### Tile, Quarry
- American Olean Tile Co
- Armstrong Corp
- Builders Brick Co
- Carlyle Tile Co
- Columbia Brick Works
- Empress Brick Co Inc
- Gladding McBean & Co
- Hanley Co
- Hood Ceramic Corp
- Interstate Brick Co
- Ludowici-Celadon Co
- Moloney Co
- Murray Tile Co Inc
- National Pool Equipment Co
- Summitville Tiles Inc
- United States Ceramic Tile Co

#### Tile, Roofing
- Gladding McBean & Co
- Ludowici-Celadon Co
- Wolervine Porcelain Enameling Co
- Zonolite Co

#### Tile, Rubber
- American Brilliant Rubber Co
- Armstrong Cork Co
- Crown Rubber Co
- Danbury Rubber Inc
- Flinthakote Co
- Forman-Ford & Co
- Goodrich B F Co Flooring Products
- Kentile Inc
- Mitchell Rubber Products Inc
- Muscle R C Rubber Co
- Robbins Floor Products Inc
- United States Rubber Co

### Tile, Structural
- Acme Brick Co
- Acme Shale Brick Co Inc
- Akurex Ceramic Corp
- American Olean Floor Co
- Azrock Floor Products Inc
- Builders Brick Co
- Charleston Clay Prods Co
- Columbia Brick Works
- Design Technics
- Eglit-Standard Brick Co Inc
- Empress Brick Co Inc
- Hanley Co
- Hope Brick Works
- Humboldt Brick & Tile Co
- Interstate Brick Co
- Jenkins Brick Co
- Malvern Flower Lining Inc
- Mason City Brick & Tile
- Metropolitan Brick Inc
- Midland Brick & Tile Co
- Summit Pressed Brick & Tile Co
- Texas Brick Co
- United Brick & Tile Co
- West Virginia Brick Co

### Tile, Vinyl
- American Brilliant Rubber Co
- Armstrong Cork Co
- Arterest Products Co Inc
- Arock Floor Products Div
- Bird & Son Inc
- Congoleum-Nairn Inc
- Danbury Rubber Co Inc
- Dodge Cork Co Inc
- Flinthakote Co
- Forman-Ford & Co
- General Tire & Rubber Co Bldg Materials
- Goodrich B F Co Flooring Products
- John-Manville Corp
- Kentile Inc
- Mastic Tile Div Ruberoid Co
- National Floor Products Co
- Robbins Floor Products Inc

### United States Ceramic Tile Co
Ruberoid Co
Vinyl Plastics Inc

Tile, Wall, Hardboard
Abitibi Corp
Barclay Mfg Co Inc
Kochton Plywood & Veneer Co Inc
Marsh Wall Products Inc
Masonite Corp
Wood Conversion Co

Tile, Wall, Leather
Kiefer International Products Co Div

Tile, Wall, Marble
(See Flooring & Wall Covering, Marble)

Tile, Wall, Metal
Alloy Tile Corp
Crown Tile Corp
Goldsmith Metal Lath Co
Hastings Aluminum Products Inc
Vikon Tile Corp
Wheeling Corrugating Co

Tile, Wall, Plastic
Arctec Products Co Inc
Cernak Tile Co Inc
Forman-Ford & Co
Formica Corp
Goldblatt Tool Co
Hastings Aluminum Products Inc
Hastings Metal Lath Co
Kiefer International Products Co Div
Kochton Plywood & Veneer Co Inc
LeTourneu-Westinghouse Co
Lustro Tile Mfg Co
Masonite Corp
Missouri Tile Co
Nicholson File Co
Nicholson Mfg Co
Owatonna Tool Co
Oxwall Tool Co Ltd
Parker Mfg Co
Phillips Drill Co
Plumb Fayette R Inc
Pocketalk Corp
Ramset Fastening System
Roe Justus & Sons
Sargent & Co
Sargent & Co
Stanley Tools
Starrett L S Co
Storz John & Son Inc
True Temper Corp
Turn-A-Bore Equipment Co
Union Tool Co
Vauhn & Bushnell Mfg Co
Wallboard Tool & Equipment Co
Warren Tool Corp
Will-Burt Co

Tools, Concrete Finishing
(See also Concrete Vibrators)
Chicago Pneumatic Tool Co
Dixton Div H K Porter Co Inc
Goldblatt Tool Co
Nicholls Mfg Co
Peerless Level & Tool Co
Remington Arms Co Inc
Sands Level & Tool Co
Speedway Mfg Co
Storz John & Son Inc
Storz John & Son Inc
Storz John & Son Inc
Storz John & Son Inc
Storz John & Son Inc
Storz John & Son Inc

Tools, Masons, Plasterers
Adams Co
Bridgeport Hardware Mfg Corp
Clippers Mfg Co
Columbia Brick Works
Damascus Steel Products Corp
Dixton Div H K Porter Co Inc
Empire Level Mfg Co
Fletcher-Terry Co
General Hardware Mfg Co Inc
Goldblatt Tool Co
Graham John H & Co Inc
Industrial Iron Works
Jeff Jones Co
Karelin Albert & Sons Inc
Mayes Bros Tool Mfg Co
Muller Machinery Co Inc
Nicholls Mfg Co
Park Tool Co
Peerless Level & Tool Co
Phillips Drill Co
Plumb Fayette R Inc
Port Austin Level & Tool Mfg Co
Ramset Fastening System
Remington Arms Co Inc
Rice Pump & Machine Co
Safety Nail Driver Corp
Sands Level & Tool Co
Stanley Tools
Storz John & Son Inc
Superior Scaffold Co
Vauhn & Bushnell Mfg Co

Tractor Attachments
Allis Chalmers Mfg Const Mach Div
Arps Corp
Case J I Co
Caterpillar Tractor Co
Clark Equipment Co
Clark Equipment Co Div
Emico Corp
Ford Motor Co
Ford Motor Co Tractor & Implement Div
Gilson Bros Co
Gilson Bros Co
Hastings Aluminum Products Inc
Hastings Metal Lath Co
Hastings Metal Lath Co

Turn to Section 3—Manufacturers Directory for all addresses
Kohler Co
Musselman & Sons Inc
Reed Ceramex Corp
Reeves Steel & Mfg Co Div
Richmond Plumbing Fixtures
Viking Mfg Corp
Voss Washer Co
Tubs, Mixing
Portejo Industries Inc
Vestal Mfg Co
Underlayment Flooring
(See Flooring, Underlayment)

Vanities, Lavatories
Atkinson Wood Products Corp
Borg-Warner Ingersoll-Humphreys
Boro Wood Products Co Inc
Caraco Inc
Case Mfg Div
Chicago Pottery Co
Colonial Products Co
Curtis Companies Inc
Farley & Loetgering Mfg Co
Gola Northern Mfg Corp
Gregg & Son Inc
I-XI Furniture Co
Kramer Specialty Co
Morgan-Wightman Co
National Vanity Co
Pasee Woodwork Co Inc
Precisionware Inc
Regal Laminates Inc
Royal Woodwork Inc
Sanit-Top Inc
Scheirich H J Co
Schenck William & Co
Sherle-Wagner
Standard Steel Cabinet Co
Tidepress Mfg Co Inc
Textoro Cabinet Corp
Tiffany Mfg Co Inc
Toberat Inc
United Metal Cabinet Corp
Williams Products Inc

Vapor Barriers
(See also Paper, Building; Sheathing)

Abeto Mfg Co
Air-O-Cel
Allied Chemical Corp Barrett Div
American Stalikraft Corp
Arvey Corp
Bird & Son Inc
Carey Phillip Mfg Co
Delta Co
Dow Chemical Co
Gering Plastics Div

Tubing (See Pipe & Tubing)
Tubs, Bath
(See also Plumbing Fixtures)
Tubs, Laundry
(See also Plumbing Fixtures)

Tecmo
Tecmo Split Rings and Shear Plates

Tecmo Truss Plates

Timber Engineering Company
1319 18th St., N.W., Washington 6, D. C.

Timber Fabricators Inc
Timber Structures Inc
Unit Structures Inc

Tubing
(See Pipe & Tubing)
Tubs, Bath
(See Plumbing Fixtures)
Tubs, Laundry
(See also Plumbing Fixtures)

Vibrators, Concrete
(See Concrete Vibrators)
Vinyl Tile

(See Tile, Vinyl)

Allianceware Inc
Erde Perforating Co Inc
Kawneer Co

Wall Coverings, Fabric

Bridge Co Inc
Columbia Coated Fabric Corp
Curtis Wright Corp Curov Div
Fabrikona Inc
Goodrich B F Industrial Products Co
Imperial Color Chemical & Paper Corp
New Castle Products Inc
Standard Coated Prods Inc
Suncraft Inc
United States Plywood Corp

Wall Coverings, Plastic

Artest Products Co Inc
Cermak Tile Co Inc
Compool Nairn Inc
Decro-Wall Corp
Fabrikona Inc
General Electric Co Laminated Prods
Lustro Tle Mfg Co
Masland Duraleather Co
National Gypsum Co
Polyplastex United Inc
St Regis Paper Co Pannelty Div
Shale-Wagner
Standard Coated Prods Inc

Wall Plates, Decorator

Arrow Hart & Hegeman Elec Co
General Electric Co Wiring Device Dept

Wall Safes

(See Safes, Wall)

Wall Tile

(See Tile, Wall)

Wallboard, Asbestos Cement

Carey Phillip Mfg Co
Fibercoboard Paper Prods Inc
Flintkote Co
Johns-Manville Corp
Keystone & Mattison Co
Lehon Co
Ruberoid Co
United States Plywood Corp

Wallboard, Gypsum

Allied Chemical Corp Barrett Div
Beades Mfg Inc
Bestwall Gypsum Co
Celotex Corp
Chicago Fire Brick Co
Fibercoboard Paper Prods Inc
Flintkote Co
Grand Rapids Gypsum Co
Hartmuster Mfg Inc
Kaiser Gypsum Co Inc
National Gypsum Co
Ruberoid Co
United States Gypsum Co

Wallboard & Sheathing, Fiber

(See also Insulating Board)

American Sialkraft Corp
Allied Chemical Corp Barrett Div
Armstrong Cork Co
Celotex Corp
Fleming & Sons Inc
Flintkote Co
Forest Fiber Products Co
Homaco Co
Insulite Div Minn & Ontario Paper Co
Johns-Manville Corp
Kaiser Gypsum Co Inc
Kochton Plywood & Veneer Co Inc
Paxton Frank Lumber Co
Plastergon Wall Board Co
Reynolds Aluminum Supply Co
Simpon Timber Co
Southern Pine Lumber Co
United States Gypsum Co Superwood Corp
Upeon Co
Wood Conversion Co

Wallpaper

Bridge Co Inc
Buffalo Wallcraft Co Inc
Cook Paint & Varnish Co

Devos & Raynolds Co Inc
Imperial Color Chemical & Paper Corp
Peleale-Gaulteur Paint & Varnish Co
Pittsburgh Plate Glass Co
Prager Co Inc
Sherle-Wagner
Stamford Wallpaper Co Inc
York Wall Paper Co

Washers & Dryers, Clothes

Blackstone Corp
Easy Laundry Appliances Div
Grigdige Div General Motors Corp
General Electric Co Major Appliance
Hamilton Mfg Co
Hotpoint Div
Kelvinator Div American Motors Co
Maytag Co
Norge Div Borg-Warner Corp
O’Keefe & Merritt Co
Philo Corp
Speed Queen Div McGraw-Edison Co
Suburban Profile Gas Corp
Temco Industries Div
Voss Washer Co
Westinghouse Electric Appliance Div
Westinghouse Electric Corp
Whirlpool Corp

Water Closets

(See Plumbing Fixtures)

Water Heaters, Electric

American-Standard Plumbing & Heating
Bastian-Morley Co Inc
Carrier Co Inc
Cleveland Heater Co
Cook Electric Mfg Co
Day & Night Mfg Co
Eagle Electric Mfg Co
Frigidaire Div General Motors Corp
Gaffers & Sattler Div
General Electric Co Major Appliance
Hedges M M Mfg Co Inc
Hotpoint Div
Holstrom Heat Wer Co
Kelvinator Div American Motors Co
Koven L O & Bro Inc
Little H C Burner Co
Monarch Range Co
Morgan-Wightman Co
National Disposer
National Rubber Machinery Co
Norge Div Borg-Warner Corp
Pioneer Mfg Co
Rusco Mfg Co
Smith A O Corp Permaglas Div
Simpson Timber Co
Wayne Home Equipment Co Inc
Westinghouse Electric Corp

Water Heaters, Gas

American Radiator & Standard Sanitary
American-Standard Plumbing & Heating
Bastian-Morley Co Inc
Bryant Mfg Co
Carrier Corp
Cleveland Heater Co
Coleman Co Inc
Day & Night Mfg Co
DeArbon Stove Co
Delco Appliance Div General Motors
Federal Boiler Co Inc
Gaffers & Sattler Div
Hedges M M Mfg Co Inc
Holstrom Heat Wer Co
Insa-Matic Heater Co
Koven L O & Bro Inc
Little H C Burner Co
Monarch Range Co
Morgan-Wightman Co
Mustee E L & Sons Inc
Norge Div Borg-Warner Corp
Pioneer Mfg Co
Rusco Mfg Co
Smith A O Corp Permaglas Div
Suburban Propane Gas Corp
Waldorf Heat Wer Co
Waterfilm Boilers
Wayne Home Equipment Co Inc
White Products Corp

Water Supply

(See Pumps, Domestic Water Supply)

Waterproofing Compounds

Ahsna Mfg Co
Allied Chemical Corp Barrett Div
American Bitumuls & Asphalt Co
American Sta-Dri Co
Anti Hydropoofing Co
Arsy Co
Bi-Products Corp
Borden Chemical Co Div Borden Co
Caxbod Samuel Inc
Calhar Inc
Camp Co Inc
Carey Phillip Mfg Co
Cerelit Corp
Colorcrete Industries Inc
Concrete Weld Co
dad & Lad Co
Dasco Co Inc
Devoe & Raynolds Co Inc
Douglas & Sturgess
Emco Cement Products Inc
Evercreste Corp
Flintkote Co
Henry W W Co
Penn A C Companies Div Sun Chem Corp
Johns-Manville Corp
Kav-Zite Co
Koppes Co Inc Durethene Plant
Ladik Paint Inc
Logan-Lang Co
Lumino Co
Marsh Wall Products Inc
Master Builders Co
Meadows W R Inc
Medusa Portland Cement Co
Monroe Co Inc
National Gypsum Co
National Mfg Corp
Nova Sales Co
Pecora Inc
Penn Crete Products Co
Permagale Corp Div
Pittsburgh Plate Glass Co
Plexitone Corp of America
Premsette Div American-Marietta Co
Profection Products Mfg Co
Ranetite Mfg Co

Rusco Mfg Co
Smith A O Corp Permaglas Div
Suburban Propane Gas Corp
Waldorf Heat Wer Co
Waterfilm Boilers
Wayne Home Equipment Co Inc
White Products Corp
Waldorf Heat Wer Co

Water Heaters, Oil

Coleman Co Inc
Delco Appliance Div General Motors
Federal Boiler Co Inc
Gilbert & Barker Mfg Co
Holstrom Heat Wer Co
Koven L O & Bro Inc
Kresko-Starrm Corp
Kresyq Mfg Co Inc
Tord heter Div Cleveland Steel Prods Corp
Waterfilm Boilers
Wood John Co Heat Wer & Tank Div

Water Softeners & Conditioners

Clayton Mark & Co
Culligan Inc
Dynilon Water Systems Inc
Elnig Softner Corp
Flint & Walling Mfg Co Inc
Lancaster Pump & Mfg Co Inc
Lindsay Co
Modern Swimming Pool Co Inc
Myers F E & Bros Co
Penssati Chemicals Corp
Permutit Co Div Pfaulder Permutit Inc
Red Jacket Mfg Co
Smith A O Corp Permaglas Div
Tail Mfg Co
Uniflow Mfg Co
Wayne Home Equipment Co Inc
White Products Corp

Turn to Section 3 — Manufacturers Directory for all addresses.
<table>
<thead>
<tr>
<th>Company</th>
<th>Products/Services</th>
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<tbody>
<tr>
<td>Reardon Co</td>
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<td>Re-Nu-It Corp</td>
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<td>Reardon Co</td>
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<td>Rutland Fire Clay Co</td>
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<td>Seddon Co</td>
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<td>Sika Chemical Corp</td>
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<td>Silvalex Div Union Carbide</td>
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<td>Silicone Products Dept</td>
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<td>General Electric</td>
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<td>Standard Dry Wall Products</td>
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<td>Steelite Mfg Co</td>
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<td>Sullivan Co</td>
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<td>Super Concrete Emulsions</td>
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<td>Tamms Industries Co</td>
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<td>Thompson E A Co Inc</td>
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<td>Toch Bros</td>
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<td>Tremco Mfg Co</td>
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<td>Walco-Dennis Corp</td>
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<td>X-Pando Corp</td>
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<td><strong>Windows, Awning Type, Metal</strong></td>
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<td>Air-Vue Products Corp</td>
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<td>Asco Inc</td>
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<td>Arnold Altec Aluminum Co</td>
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<td>Brown &amp; Gris Inc</td>
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<td>Capitol Products Corp</td>
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<td>Ceco Steel Prods Corp</td>
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<td>Continental Aluminum Products Co</td>
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<td>Crossly Window Corp</td>
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<td>Durell Products Inc</td>
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<td>General Bronze Corp</td>
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<td>Look Products Inc</td>
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<td>Mesker Bros Iron Co</td>
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<td>Metal Trims Inc</td>
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<td>Miami Window Corp</td>
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<td>Michel &amp; Pfeffer Iron Works Co</td>
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<td>Mueller Brass Co</td>
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<td>National Window Corp</td>
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<td>North East Metal Products Corp</td>
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<td>Regal Products Corp</td>
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<td>Republic Steel Corp</td>
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<td>Truscon Div</td>
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<td>Reynolds Aluminum Supply Co</td>
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<td>Royal Jalouise Co</td>
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<td>Rusco Div of F C Russell Co</td>
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<td>W M Products Co</td>
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<td>Ware Aluminum Windows Inc</td>
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<td><strong>Windows, Awning Type, Wood</strong></td>
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<td>Andersen Corp</td>
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<td>Angel Co</td>
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**Notes:**
- **Windows Hardware (See Hardware, Window)**
- **Window Screens (See Window, Combination)**
- **Window Sills**
- **Window Surrounds, Metal**

**디테일**
- **Windows, Awning Type, Metal**
- **Windows, Awning Type, Wood**
- **Windows, Basement & Utility, Steel**
- **Windows, Basement & Utility, Wood**
- **Windows, Sash, Metal**
- **Windows, Sash, Steel**
- **Windows, Sash, Wood**

**다른 주제**
- **Aluminum Products**
- **Weatherstripping**
- **Weatherproofing**
- **Woodside Engineering Co**

**부속 정보**
- **IDA Products Co.**
- **IDAMAX Aluminum Windows**
- **Lee Millwork Corp**
- **Ohio Plate Glass Co**
- **Reuten Fred Inc**
- **Southern Mill & Mfg Co**
- **Woodco Corp**

**주제**
- **American Builder**
- **Big Window Beauty, Low Cost**
Ceco Steel Prods Corp
Davidson Enamel Products Inc
DeVac Inc
E-Z Set Windows Inc
Fuller W P & Co
Ida Products Co
Kawneer Co
Kreuger Mfg Co
Maco Corp
Mesar Bros Iron Co
Michel & Pfeffer Iron Works Inc
Mueller Brass Co
Republic Steel Corp Truscon Div
Reynolds Aluminum Supply Co
Reynolds Metals Co
Southern Sash Sales & Supply Co
Universal Fabrication
Universal Window Co
Wabash Aluminum Windows Inc
Wilke Metal Products Inc
Winter Seal Corp

Windows, Casement, Steel
Bayley William Co
Ceco Steel Prods Corp
Durell Products Inc
Hopes Windows Inc
Kreuger Bros Iron Co
Michel & Pfeffer Iron Works Inc
Republic Steel Corp Truscon Div

Windows, Casement, Wood
Andersen Corp
Billbest Corp
Boise Cascade Corp
Crestline Co
Curtis Companies Inc
Durell Products Inc
Eting Window
Fabrow Mfg Inc
Farley & Loetscher Mfg Co
Ideal Co Mfg Div Wm Cameron & Co
International Paper Co Long-Bell Div
Macta Mfg Co
Ohio Plate Glass Co
Paxton Frank Lumber Co
Pullum Window Corp
R G W Window Sales Co
Rock Island Millwork Co Factory Div
Southern Mill & Mfg Co
Woodco Corp

Windows, Double Hung, Aluminum
Air Vue Products Corp
Albritton Engineering Corp
Alaco Inc
Ceco Steel Prods Corp
Cole Mfg Co
DeVac Inc
Fenestra Inc
Fleet of America Inc
Humphrey Products Inc
Ida Products Co
Kreuger Mfg Co
Look Products Inc
Mueller Brass Co
Pomeroy S H Co Inc
Repulible Steel Corp Truscon Div
Reynolds Aluminum Supply Co
Reynolds Metals Co
Southern Sash Sales & Supply Co
Trim Slide Inc
W M Products Co
Windalume Corp
Winter Seal Corp

Windows, Double Hung, Steel
Fenestra Inc
Pomeroy S H Co Inc
Repulible Steel Corp Truscon Div
Rusco Div of F C Russell Co

Windows, Double Hung, Wood
A R B Window Sales Co
Andersen Corp
Boise Cascade Corp
Caradco Inc
Cole Mfg Co
Crestline Co
Curtis Companies Inc
Dierske Forests Inc
Dierks Forests Inc
Kanawha Products Co
Kane Mfg Corp
Kewanee Mfg Co
Macta Mfg Co
Malta Mfg Co
Metal Trims Inc
Mueller Brass Co
National Window Corp
Republic Steel Corp Truscon Div
Valley Metal Products Co
Ware Aluminum Windows Inc
Wilke Metal Products Inc
Windalume Corp

Windows, Horizontal Sliding Metal
(Caradco Inc
Curtis Companies Inc
Dierske Forests Inc
Farley & Loetscher Mfg Co
International Paper Co Long-Bell Div
Macta Mfg Co
Ohio Plate Glass Co
Rock Island Millwork Co Factory Div
Rock Island Millwork Co Factory Div
Southern Mill & Mfg Co
Woodco Corp

Optical Laminating

Turn to Section 3—Manufacturers Directory for all addresses
Windows, Metal, Louver-Based
Mueller Brass Co
North East Metal Products Corp
Reynolds Aluminum Supply Co

Windows, Plastic
American Stealcraft Corp
Asreyc Corp
Chomical Co
Diperast Corp
Heinley Mastercraft Products
Koppers Inc Durethene Plant
Kordite Co
Pyle Corp

Windows, Projected, Aluminum
Air Vues Products Corp
Bayley William Co
Bliss Steel Products Corp
DeVac Inc
Fenestra Inc
Flynn Michael Co
Hopes Windows Inc
Metal Trims Inc
Miami Window Corp
Michel & Pfeffer Iron Works Inc
Mueller Brass Co
National Window Corp
Peterson Window Corp
Pepro Products Inc
Regal Products Corp
Republic Steel Corp Truscon Div
Reynolds Aluminum Supply Co
Royal Jalousie Co
Southern Sash Sales & Supply Co
Storm King Corp
Trim Slide Inc
Trimview Metal Products
Ware Aluminum Windows Inc
Whitner Industries Inc

Windows, Single Hung, Aluminum & Steel
Air Vues Products Corp
Alcoa Inc
Albritton Engineering Corp
Ceo Steel Products Corp
Crosley Window Corp
DeVac Inc
Fenestra Inc
Formetal Inc
General Bronze Corp
Ida Products Inc
Kawneer Co
Metal Trims Inc
Michel & Pfeffer Iron Works Inc
Mueller Brass Co
National Window Corp
Regal Products Corp
Republic Steel Corp Truscon Div
Reynolds Aluminum Supply Co
Reynolds Metals Co
Royal Jalousie Co
Russco Div of F C Russell Co
Southern Sash Sales & Supply Co
W M Products Co
Ware Aluminum Windows Inc
Windalume Corp
Winter Seal Corp

Windows, Single Hung, Wood
Caradeo Inc
Crestline Co
DeVac Inc
Paxton Frank Lumber Co

Windows, Storm
(See Windows & Doors, Combination)

Windows, Structural, Wood
Andersen Corp
Crestline Co
Fabrow Mfg Inc
Reuten Fred Inc
Southern Mill & Mfg Co

Wire
American Steel & Wire Div
Bethlehem Steel Co
Chase Brass & Copper Inc
Circle Wire & Cable Corp
Colorado Fuel & Iron Corp
Continental Steel Corp
Conver Steel & Wire Co
Copperweld Steel Co Wire & Cable Div
Eagle Electric Mfg Co
Forbes Steel Corp
General Cable Corp
General Electric Co Constr Materials
Jones & Laughlin Steel Corp
Kaiser Aluminum & Chemical Corp
Laciede Steel Co
Mid-West Steel & Wire Co
Northwestern Steel & Wire Co
Phelps Dodge Copper Prods Corp
Sheffield Div Armco Steel Corp
Sommer Metal Craft Corp
Teach Plate Mfg Corp
Triangle Conduct & Cable Co Inc
United States Steel Corp
Youngstown Sheet & Tube Co

Wiring, Concealed Telephone
American Telephone & Telegraph Co

Wiring Devices, Electrical
Arrow Hart & Hegeman Elec Co
Bryant Electrical Co
Cable Electric Products Inc
Circle F Mfg Co
Cutler Hammer Inc
Eagle Electric Mfg Co
General Electric Co Constr Materials
General Electric Co Wiring Device Dept
Hubbell Harvey Inc
International Register Co
Jerrold Electronics Corp
Keystone Mfg Co
Leviton Mfg Co Inc
Murray Mfg Corp
Pass & Seymour Inc
Rodale Mfg Co Inc
Superior Electric Co
Swivelco Inc
Touch Plate Mfg Corp
Union Insulating Co
Wakefield Co
Westinghouse Electric Corp

Wiring Devices, TV & FM
Blodgett-Tongue Laboratories Inc
Mosley Electronics Inc

Wiring, Electrical, Multi Outlet
Bryant Electrical Co
Cable Electric Products Inc
Circle Wire & Cable Cpr
General Electric Co Wiring Device Dept
Kaiser Aluminum & Chemical Corp
Merrin Mfg Co
Wakefield Co
Wiremold Co

Wiring Systems, Remote Control
Bryant Electrical Co
General Electric Co Constr Materials
General Electric Co Wiring Device Dept
Iverson Div Pyramid Instrument Corp
Superior Electric Co
Touch Plate Mfg Corp
Wakefield Co

Wood
(See Lumber)
### MANUFACTURERS DIRECTORY

The full name and address of every manufacturer in the product and brand name sections appears here. For more information on a product, write directly to the company listed.

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<thead>
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<th>A</th>
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<td>A</td>
<td>A &amp; A Register Co 8203 Clinton Rd Cleveland 9 Ohio</td>
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<td>A &amp; A Wire Products Co 714 E 61 St Chicago Ill</td>
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West Virginia Brick Co PO Box 1071
Charleston, W Va
Western Lock & Dam Co, 2075 Belgrave
Huntington, W Va
Western Metal Chicago Specialty Div Western
Ind Inc 1211 N 62 St Milwaukee
Wisc
Western States Stone Co PO Box 466
Santa Clara Ca
Whitney Electro-Mechanical Div, Western
Ind Inc, 1211 N 62 St Milwaukee
Wisc
Wheaton Mfg Co Inc 114 S Alakan Way
Seattle, Wn
Weyerhaeuser Co Lumber & plywood
Div Tacoma Bldg Tacoma 1 Wash
Weyerhaeuser Co Silver Div Tacoma
Bldg Tacoma 1 Wash
Wheeling-Corning Co 1134 Market
St Wheeling, W Va
Wheeling Steel Corp 1134-1140 Market St
Wheeling, W Va
Whirlpool Corp Administration Bldg
Us 31 St Joseph Mich
White Cap Mfg Co Rockport Wash
White Motor Co 842 E 79 St Cleveland
1 Ohio
White Pine Co E 4005 Broadway
Spokane Wash
White Products Corp 98 E Main St Midli-
deville Mich
White-Rodgers Co 5977 Reavis Rd St
Louis 23 Mo
White-Mfg Co 13020 Pierce Ave Pa-
colma Los Angeles Cal
Whitney Baxter & Son Inc 507 Jack-
son Box 3425 NC
Whitney Vincent Co PO Box 335 Sau-
nalla Cal
Whizzer Industries Inc 350 Sanford St Font-
ic Mich
Whitwires Inc 189 Main St Cortland
Wn
Wiegand Edwin L Co 7500 Thomas Blvd
Birmingham, Pittsburgh Pa
Wilbur & Williams Co 650 Pleasant St
Norwood, Ohio
Wilcolator Co 1001 Newark Ave Eliza-
beth NJ
Willey B & W Inc 119 Dearborn St Buf-
falo 7 NY
Wilkie Metals Industries Inc 1117 Drost Street
Schofield Wisc
Williamette Lumber Div PO Box 5 Dal-
lar Ore
Will-Burt Co Orrville Ohio
Williams J L & Son Sheridan Ark
Williams Oil-O-Matic Heating Co Div
National Union Electric Corp 851 W
Third Ave Columbus 3 Ohio
Williams Products Inc 1536 Grant St El-
khart 1 Ind
Williamson Co 3050 Madison Rd Cinna-
matt S Ohio
Williams-Little Stone Div Georgi-
Marble Co 422 Fulton Federal Bldg Atlas-
tas 2 Ga
Willis Mfg Co PO Box 359 Bain-
bridge Ga
Willis Redwood Products Co PO Box 608
Willis Cala
Willys Motors Inc 940 N Cove Blvd To-
ledo 1 Ohio
Wilson Grant Inc 141 W Jackson Blvd
Chicago 4 Ill
Wilson J G Corp Box 590 Norfolk 1 Va
Wincharger Corp East Seventh & Divi-
sion Sta Sioux City Iowa
Windfall Corp Rt 49 Kenvil Nw
Winfield Door Corp PO Lindenhurst LI NY
Wills Lumber Co Inc 129 Wealthy St
New York 17 NY
Witte Engine Works Oil Well Supply Div U S Steel Corp 1600 Oakland Ave Kan-
sas City 26 Mo
Wodack Electric Tool Corp 4627 W Hu-
labal Ave Chicago 14 Ill
Wolfte Products Inc 71 Elinor Ave Akron 3 Ohio
Wolfe Porcelain Enameling Co 3350
Scotten Ave Detroit 10 Mich
Wolfgang Tube Div of Cabaret & Hecla
Inc 17200 Southfield Rd Allen Park
Mich
Wood Conversion Co 1st Natl Bank Bldg
St Paul 1 Minn
Wood John Co Heater & Tank Div 106
Washington St Columbus 3 Park
Mich
Wood Metal Industries Kramer Pa
Wood Metal Precision Park Div 5000 Crit-
tender Dr Louisville Ky
Wood & Tool Co Box 818 Piqua Ohio
Wood Specialty Products Inc 24500 W 60
St Mountlake Terrace Wash
Wood Treating Chemicals Co 5137 South-
dale Ave Chicago 39 Ill
Woodall Industries Inc 3550 Oakton Ave
Skokie Ill
Woodard Corp 34th St & Plank Rd N Ber-
gen NJ
Woodstock Products Inc 1860 N Eleventh
St San Jose 12 Cal
Woodside Engineering Co 9208 Grand
Ave FranklinPk Ill
Woodward Lee L Sons 317 Elm St Owosso
Mich
Woodward Lumber Co Joseph Vance
Bldg Seattle 1 Wash
Woodley Stove Co PO Box 409 Bleming-
ton Ind
Woodbury Products Inc Spruce St Wooster
Ohio
Wooster Sealcoke Co Wooster Ohio
Worthington Corp Harrison N Y
Wright Products Inc PO Box 40 Blooming-
ton Ind
Wright-Shipley Inc PO Box 329 St Paul Park
Minn
Wrenwood Chemical Co 4977 Fyler Ave St
Louis 9 Mo
Wydantole Chemicals Corp Biddle Ave
Wyandotte Mich

Y

Yale & Towne Mfg Co Yale Materials
Handling Div 11006 Roosevelt Philadelphia
15 Pa
Yale & Towne Mfg Co Yale Lock & Hard-
ware Div 11 S Broadway White
Plains NY
Yankton Hill Brick Mfg Co RFD 1 Lin-
coln 8 Neb
Yates-American Machine Co 729 Fourth
St Beloit Wisc
Yawkey Bissell Hardwood Flooring Co
White Lake Wisc
Yerk Mfg Co 579 Tecumseh St Dundee
Mich
Yasaki-Majestic Paint Corp E Fifth Ave
at Leonard Ave Columbus Ohio
Yeomans Bros Co 1999 N Ruby St Mel-
rose Park Ill
York Corp Sub Berg-Warner Grantry
Yd York Pa
York-Shipley Inc Jessop & PBR York Pa
York, Well Paper Co 726 Linden Ave
York Pa
Young A Spring & Wire Corp 690 Leh-
man Ave Bowling Green Ohio
Young Radiator Co 709 S Marquette St
Birmingham 12 Wisc
Youngblood Lumber Co 1335 Central Ave
Minn 13 Minn
Youngtown Kitchens Warren Ohio
Youngstown Mfg Co Inc 60-66 S Prospect
Youngstown Ohio
Youngstown Sheet & Tube Co PO Box
900 Youngstown 1 Ohio

Z

Zegers Inc 8909 S Chicago Ave Chicago 17
Ill
Zenith Metal Products Co Primos Pa
Zink John Co 4641 S Peoria Tulsa 5 Okla
Zimmer William & Co Inc 319 North
West Ave Chicago 11 Ill
Zoneline Co 135 LaSalle St Chicago 3 Ill
Zonen Lader & Mfg Co 4901 S W Macadam
Ave PO Box 608 Portland 2 Ore
Zurn Industries Inc Hydromechanics Div
1881 Pittsburgh Ave Erie Pa
In this section, prefab manufacturers are listed by state, alphabetically. For more information or literature, turn to the reply card on page 11 and circle the matching numbers.

**Alabama**

KINGSBERRY HOMES CORP., Fort Payne, Ala.

Firm distributes in 550 mi. radius. Has 65 basic plans. Sells through dealers at prices from $2,051 to $8,075 f.o.b. Delivers in 14 days. Offers own financing plans.

**District of Columbia**

BARRER & ROSS CO., 2925 Fourth St., N.E., Washington, D.C.

Firm distributes in four states. Has seven basic plans. Sells through dealers or to builders at prices from $2,590 to $8,000 f.o.b. Delivers in ten days. Offers various financing methods. Catalog describes package which includes basic materials, blueprint, and materials list. Includes land acquisition, development, and construction. Catalog gives complete information.

**Indiana**

ALLEN INDUSTRIES, INC., P.O. Box 2847, Station C, Fort Wayne, Ind.

Firm distributes in 350 mi. radius. Has 14 basic plans. Sells to franchised builder-dealers at prices from $1,680 to $8,000 f.o.b. Delivers in seven days. Offers own financing plan. Literature is available.

**Florida**

PANELFAB PRODUCTS, INC., 2000 N.E. 146 St., North Miami, Fla.

Firm distributes nationally, has “no limit” on number of basic plans. Sells through builders and dealers at prices from $2,600 to $15,000 f.o.b. Delivers in 30 days. Catalog describes modular panelized cottages and cabins. Circle No. 358 on reply card, p. 11

**Georgia**

W. G. BEST HOMES CORP., U.S. Route 45 S., Effingham, Ill.

Firm distributes in 350 mi. radius. Has 65 basic plans. Sells through franchised builder-dealers at prices from $2,500 to $7,000 f.o.b. Delivers in 10 days. Offers financing through subsidiary mortgage firm. Catalog describes floor plans and elevations. Circle No. 361 on reply card, p. 11

**Chicago**

CMC HOMES INC., 6306 N. Cicero Ave., Chicago, Ill.

Firm distributes in 1,500 mi. radius. Has 52 basic plans. Sells to builders at prices from $4,550 to $11,250 f.o.b. Delivers in “a few days.” Uses conventional financing. Catalogs are available for a wide variety of house plans. Circle No. 362 on reply card, p. 11

**Illinois**

CRAFT WAY INC., 850 Rathtown Avenue, Aurora, III.

Firm distributes in 500 mi. radius. Has 18 basic plans. Sells through dealers or to builders at prices from $2,600 to $8,000 f.o.b. Delivers in ten days. Offers own financing plan. Photos and floor plans of most popular models are available.

**Maryland**

GOLDEN KEY HOMES INC., Howard County, Annapolis Junction, Md.

Firm distributes in 350 mi. radius. Has 12 basic plans. Sells at prices from $2,900 to $10,000 f.o.b. Delivers in two to three weeks. Uses regular financing channels.

**Louisiana**

CRAWFORD CORPORATION, 7111 Florida Blvd. (Drawer 2551), Baton Rouge, La.

Firm distributes in 500 mi. radius. Has 27 basic plans. Sells through franchised builders at prices from $1,999 to $9,395 f.o.b. Delivers in ten days after receipt of order. Offers interim and permanent financing. Six-volume library available to franchised builders on loan basis.

**Maine**

MORGAN C. ELMER, INC., Rockland, Maine.

Firm distributes in 500 mi. radius. Has 18 basic plans. Sells to builders only at prices from $3,000 to $9,000 f.o.b. Delivers in 14 days. Offers own financing plan. Literature features floor plans, most popular elevation and cost-cutting features of each model. Circle No. 368 on reply card, p. 11

**Kansas**

STATE STANDARD HOMES DIVISION, R. I. Sweet Lumber Co., 4500 Roe Blvd., Kansas City 5, Kan.

Firm distributes in 500 mi. area. Has 11 basic plans. Sells to builders at prices from $3,000 to $7,000 f.o.b. Delivers in 14 days. Uses regular financing channels. Four-color, 80-page catalog available.

**New York**

THROUGH BUILT HOMES, Thuro Bilt Products, Inc., Fairbury, Ill.

Firm distributes in 350 mi. radius. Has 25 basic plans. Sells to builders at prices ranging from $1,900 to $12,000 f.o.b. Delivers in 10 to 14 days. Financing assistance includes land acquisition, development, money, and construction. Catalog gives complete information.

**Ohio**

AMERICAN BUILDER, P.O. Box 1100, Cleveland, Ohio.

Firm distributes in 500 mi. radius. Has 15 basic plans. Sells to builders only at prices from $5,000 to $9,000 f.o.b. Delivers in one week. Offers own package and construction financing plan.

**Oklahoma**

COLE HOMES, INC., 1730 Santa Fe, Oklahoma City, Okla.

Firm distributes in 500 mi. area. Has 11 basic plans. Sells to builders at prices from $3,000 to $7,000 f.o.b. Delivers in 10 days. Offers own financing plan. Literature is available.

**Oregon**

THRU-BUILT HOMES, Products, Inc., Portland, Oreg.

Firm distributes in 300 mi. radius. Has 12 basic plans. Sells at prices from $2,000 to $10,000 f.o.b. Delivers in ten to 14 days. Offers own package and construction financing plan.

**Pennsylvania**

ALLEN INDUSTRIES, INC., 1500 E. Broad St., Reading, Pa.

Firm distributes in 500 mi. radius. Has 30 basic plans. Sells through franchised builders at prices from $3,995 to $6,995 f.o.b. Delivers in two weeks. Offers own financing plan. Literature consists of sheets that show designs by number with floor plans on reverse side.

**Rhode Island**

GOLDEN KEY HOMES INC., 600 E. Main St., Providence, R.I.

Firm distributes in 300 mi. radius. Has 18 basic plans. Sells through franchised builder-dealers at prices from $4,500 to $7,000 f.o.b. Delivers in 14 days. Offers own financing plan. Literature describes package of streamlined skin construction as requiring prefabricated, given variety of styles, elevations.

**South Carolina**

KOHLY-CRAFT HOMES CORP., La Fayette, Ind.

Firm distributes in 1,000 mi. radius, has great variety of floor plans. Sells through franchised dealers at prices from $5,500 to $9,000 f.o.b. Delivers in ten days. Offers “customer participation” financing plan. Literature is available.

**South Dakota**

NEWTON HOMES CORP., La Fayette, Ind.

Firm distributes in seven states, and has seven basic plans. Sells through dealers at prices from $2,750 up, f.o.b. Delivers after 11 days for processing order. Offers own financing plan. Literature describes basic package of exterior panels, roof trusses, gable ends and other primary components.

**Texas**


Firm distributes in 500 mi. area. Has 20 basic plans. Sells through franchised builders and dealers at prices from $1,900 to $7,000 f.o.b. Delivers in two weeks. Literature is available on package containing complete exterior, except roof shingles, and interior studded panels only.

**Tennessee**

MARYLAND HOUSING CORP., 5715 Southwestern Blvd., Baltimore 27, Md.

Firm distributes in 150 mi. radius. Has 12 basic plans. Sells to builders at prices from $1,000 to $6,000 f.o.b. Delivers in ten to 30 days. Uses regular financing. Catalog gives floor plans, drawings, a look at all models. Basic package consists of pre-cut floor assembly, sheathed exterior panels, roof trusses.

**Virginia**

PRECISION QUALITY BUILT HOMES, INC., Milford Mill Rd. & W. Md. RR, Baltimore, Md.

Firm distributes in 200 mi. radius. Has 10 basic plans. Sells to builders at prices from $2,500 to $7,000 f.o.b. Delivers in ten to 14 days. Offers own financing plan. Literature features floor plans, most popular elevation and cost-cutting features of each model. Circle No. 367 on reply card, p. 11
100 basic plans. Sells through dealers or to builders at prices from $2,175 to $8,750 f.o.b. Delivers in about three weeks. Uses regular financing methods. Catalog describes package of pre-cut and pre-assembled joists and sub-flooring, roof trusses, gable and interior partitions, etc.

Massachusetts

ASSEMBLED HOMES, INC., 40 Holton St., Winchester, Mass.

Firm distributes in 500 mi. radius. Has 20 basic plans. Sells through dealers or to builders at prices from $2,500 to $5,800 f.o.b. Delivers in two weeks. Offers interim financing. Literature describes package of shear panels, comes delivered in two weeks. Bank does financing. Literature is available on package that consists of pre-cut and pre-assembled joists and sub-flooring, roof trusses, gable and interior partitions, etc.

SEMICO INC., 96 Seney, Mich.

Firm distributes in 450 mi. radius. Has 54 basic plans. Sells to builders at prices from $2,400 to $8,750 f.o.b. Delivers in ten days. Offers own financing plan. Catalog describes package, gives floor plans, construction details.

SERVICE HOME MFG. CO., 6521 S. Division, Grand Rapids, Mich.

Firm distributes in two states. Has 30 basic plans. Sells through builder-dealers at prices from $2,000 to $15,000 f.o.b. Delivers in ten days. Offers own financing plan. Catalog includes many sheets giving drawings and floor plans.

UNIVERSAL HOMES, INC., 271 First St., Grand Rapids, Mich.

Firm distributes in six states. Has custom plans or will fabricate to builder's plans. Sells through builder-dealers. Delivers in two weeks. Catalog gives specifications, prices of basic package, and features floor plans, drawings, variety of models.

Michigan

ALADDIN COMPANY, 212 Davidson Blvd., Bay City, Mich.

Firm distributes nationally, has 115 basic plans. Sells to individuals at prices from $3,500 up, f.o.b. Delivers in 10 to 12 days. Uses local financing. Catalog describes package of exterior modular wall panels with sheathing, siding, insulation.

PAGE & HILL HOMES, INC., Albert Lea, Minn.

Firm distributes in 14 states. Has 50 basic plans. Sells through dealers or to builders at prices from $2,200 to $9,000 f.o.b. (Free delivery up to 200 mi.) Delivers in 14 days. Offers own financing plan. Catalog shows plans, floor plans, variations, outstanding features.

Missouri

HOME BUILDING CORPORATION, 503 N. Park Ave., Sedalia, Mo.

Firm distributes in 500 mi. radius. Has ten basic plans. Sells through dealers or to builders at prices from $5,000 to $10,000 f.o.b. Delivers in 15 to 45 days. Catalog gives floor plans, drawings of finished interiors and optional extras.

MODULAR HOMES, INC., Rte. 13, Kirkwood, Mo.

Firm distributes in 600 mi. radius. Has “unlimited” number of basic plans. Sells through dealers or to builders at prices from $4,700 to $16,000 f.o.b. Delivers in seven to 10 days. Uses modular financing methods. Catalog features photos of interiors and exteriors, drawings, floor plans. Literature describes package of pre-cut horizontal panels, pre-cut horizontal panels.

NEW YORK

ALLEGHANY HOMES CORP., 26 Copeland Ave., Homer, N.Y.

Firm distributes in 250 mi. radius. Has 24 basic plans. Sells through dealers or to builders at prices from $1,941 to $11,000 f.o.b. Delivers in 7 to 14 days. Uses regular financing. Literature describes package of 2x4 and 2x6 panels, with insulation, sheathing; roof trusses; complete floor system.

BENNETT LUMBER CORP., 190 Olver St., North Tonawanda, N.Y.

Firm distributes in 500 mi. radius. Has about 75 basic plans. Sells through franchised representatives and to builders. Delivers in 5 to 15 days. Thick annual catalog is available on request.

BUSH HOMES, INC., Second St. & Lenoxx Rd., Huntington Station, L.I., N.Y.

Firm distributes in 250 mi. radius, has 24 basic plans. Sells through dealer-builders at prices from $1,941 to $12,170 f.o.b. Delivers in three weeks. Uses regular financing methods. Literature describes package of pre-cut and pre-assembled building materials.

OHIO

DUNBAR INDUSTRIES, INC., 3810 Upton Ave., Toledo, Ohio.

Firm distributes in 400 mi. radius. Has six basic models. Sells to builders at prices from $3,500 to $5,200 f.o.b. Delivers in seven to 10 days. Catalog covers floor plans, drawings of many models in compact form. Check list included.

EXPAN HOMES, INC., 15411 Chatfield, Cleveland, Ohio.

Firm distributes in Ohio. Has 12 basic plans. Sells through dealers or to builders at prices from $2,900 to $5,300 f.o.b. Delivers in ten days. Catalog presents floor plans, drawings of many models in compact form. Check list included.

Nebraska

PRODUCTION SALES CO., 2719 Washington St., Lincoln, Neb.

Firm distributes in 500 mi. radius. Has 28 basic plans. Sells through builder-dealers at prices from $5,000 to $7,500 f.o.b. Delivers in seven days. Catalog consists of pre-cut joists and sub-floor; average room-size wall panels; roof sheathing in plywood.
$2,100 to $8,000 f.o.b. Uses conventional financing methods. Literature describes package of full wall panels, insulating sheathing or stressed skin panels.

MIDWEST HOMES, INC., P.O. Box 354, Mansfield, Ohio. Firm distributes in three states. Has 12 basic plans. Sells to builders at prices from $2,500 to $10,000 f.o.b. Delivers in three weeks. Offers own financing plan. Catalog describes package of complete carpentry materials used for interior and exterior construction. Catalog also includes plans, elevations and specifications.

FEASE WOODCO WORK CO., INC., 900 Forest Ave., Hamilton, Ohio. Firm distributes in 600 mi. radius. Has 14 basic plans. Sells through dealers or to builders at prices from $2,800 to $10,000 f.o.b. Delivers in two weeks. Offers own financing plan. Catalog describes package of factory-assembled component wall panels, trusses, doors and window units.

SCHOLZ HOMES, INC., 2001 N. Westwood, Toledo, Ohio. Firm distributes nationally. Has 100 basic plans. Sells through dealers or to builders at prices from $2,750 to $10,000 f.o.b. Delivers in seven days. Offers own financing plan. Literature on new Lafayette series is available.

SOUTHERN MILL HOMES CO., P.O. Box 1087, Tulsa, Okla. Firm distributes in three states. Has 21 basic plans. Sells to builders at prices from $2,500 to $5,000 f.o.b. Delivers in three weeks. Uses regular financing methods. Literature describes package of exterior and interior panels, roof, windows, doors. Catalog includes floor plans, elevations and specifications.

WEAKLEY MANUFACTURING CO., South of Buckeye, Newark, Ohio. Firm distributes in four states. Has 12 basic plans. Sells through dealers or to builders at prices from $2,500 to $10,000 f.o.b. Delivers in three weeks. Uses regular financing methods. Literature describes package of facade materials, with exterior siding complete and primed, interior wall board primed.

ADAMIRAL HOMES, INC., 406 Water St., W. Newton, Pa. Firm distributes in 300 mi. radius. Has 20 basic plans. Sells through dealers or to builders at prices from $2,500 to $7,000 f.o.b. Delivers in 10 to 14 days. Offers own financing plan. Literature describes package of complete carpentry material, rough and finish; gives floor plans, -a look at all models.

ACRE HOMES, INC., 1903 1st Ave., Chambersburg, Pa. Firm distributes in 300 mi. radius. Has 30 basic plans. Sells through dealers or to builders at prices from $2,200 to $10,000 f.o.b. Delivers in 10 to 14 days. Offers own financing plan. Catalog describes package of exterior and interior panels, roofing structure, windows. Catalog also includes plans, elevations and specifications.

VIRGINIA LEE HOMES, INC., Box 606, Kirkland, Wash. Firm distributes to Northwest, Alaska, Hawaii. Has 200 basic plans. Sells through dealers or to builders at prices from $1,800 to $6,000 f.o.b. Delivers in 10 to 14 days. Uses regular financing methods. Catalog shows variety of model drawings, floor plans, exterior photos.

NORTHERN HOMES OF PA., INC., Fifth Ave., Chambersburg, Pa. Firm distributes in 500 mi. radius. Has 21 basic plans. Sells through builders or to builders at prices from $3,500 to $10,000 f.o.b. Delivers in 10 to 14 days. Offers own financing plan. Catalog gives designs, floor plans, elevations, specifications.

LOXIDE STRUCTURES, 9004 S. 19th St., Tacoma, Wash. Firm distributes to all western states. Alaska, Hawaii. Has 40 basic plans. Sells through dealers or to builders at prices from $1,100 to $8,000 f.o.b. Delivers in two weeks. Uses regular financing methods. Catalog shows exterior and interior designs, floor plans, specifications.
Brand names are listed in alphabetical order, together with the names of their manufacturers. To obtain the complete name and address of a manufacturer, turn back to Section 3.
Turn to Section 3—Manufacturers Directory for all addresses
INLAND HOMES ASKS THAT YOU

Compare

ECONOMY VANGUARD

with 3 bedrooms — 36' 4" x 24' 4"

DESIGNED TO SELL FOR $8750 ON A $2000 LOT

Here's the Package

$1997 Buys

• Exterior wall sections with primed double coursed cedar shakes factory applied over impregnated sheathing
• Prefinished exterior doors and glazed aluminum slider windows factory installed in the wall sections
• Gables with cedar shakes factory applied, louvers installed
• Roof trusses, roof sheathing, felt, and 210# asphalt shingle roofing
• Primed exterior architectural trim
• Interior partitions, complete interior trim, passage door assemblies, and closet closures
• Ceiling insulation, rough and finish hardware, and factory applied weatherstripping
• Birch wood kitchen cabinets, sink and fittings
• 2" x 4" construction throughout

Quantity discounts, cash discount and cooperative advertising allowances

Prove to yourself that Inland Homes is the low cost leader. Write, wire, or phone (PR 3-7550)
Neal B. Welch, Jr., Vice President-Sales, Department A-4, Piqua, Ohio

INLAND HOMES CORPORATION

Executive Offices: Piqua, Ohio
Plants in Piqua, Ohio; Hanover, Pa.; and Clinton, Iowa
BRAND NAMES DIRECTORY

(Continued from page 81)

FLOW-COLD Acme Industries
FLOW-ON Barreled Sunlight
FLOW PAC Acme Industries
FLOW RACK Rapid-Standard
FLOW-TEMP Acme Industries
FLOW-TEMPITKE Leech & Mattison Co
FLUSHCALL Edwards Co Inc
FOAMASTER Atlas Floor Surfacing
FOAMCOTE Rubber Wood
FOAMEDGE Sterling Alderfer
FOAMFLEX Merrell J W Co
FOAMGLAS Pittsburgh Corning
FOAMSIL Pittsburgh Corning
FOLD-A-WAY Patent
FOLDING CO
FOLD-A-WEIGHT Standard Building Products Co
FOLD-ASIDE Acme Appliance
FOLD-LATCH Macleanburg-Duncan Co
FOLDSET Gates Mfg Co Inc
FOOTEHOL Holcomb & Hoke
FOOTHOLD Behr-Manning
FORCE-FLO Trane Co
FORDYCE ROYAL OAK Fordyce Lumber Co
FORGETT Congeloom-Nairn
FORESTONE Simpion Timber
FORCE FRANK Penn-Akron
FORGEWELD Colson Corp
FORM FLOW Standard Register Co
FORMBINDER Gerrard A J
FORMCO Form Co
FORMFREE Mosaic Tile Co
FORMTEX Formtex Industries
FORMTEX US Plywood Corp
FORMTY Form Co
FORMUM Miraplas Co
FORWAY US Expansion Bolt
FOUR A Alabama Metal Lath
FOUR B-WAY Patent
FOUR IN-ONE SKID SHOVEL Drott Mfg Corp
FOUR SQUARE Weyerhaeuser Co
FOUR WAY WINDOWS Farley & Loetscher Mfg Co
FPP Reeve Metal Weatherstrip
FRAM Safe Padlock & Hardware Co
FRANCISCAN-HERMOSA Gladding McBean & Co
FRANTZ Frantz Mfg Co
FRATE-GATE Gar Wood Industries, Inc.
FRE-FLO Sequoia Mfg Co
FRENCH LOCK Certain-Teed
FRESHMANN Air Corp
FRESH-MATIC Boice Crane Co
FRIGIDAIRE Frigidaire Div
FRONT END Allied Chemical
FULL-VU Leith Building Prod
FULTEX Fulton Cotton Mills
FULTON FURHS Fulton Cotton Mills
FULTON TAPAS Fulton Cotton Mills
FURNITURE Infect Steel Products Co
FUSE-O-LINK Clark Door Co
FUSION BRAZED High & Mfg
FUSIONWELD High & Mfg Co
FUTURA Beauty-Dor Inc
FUTURA Miraplas Tile Co
FUTURA Penn-Akron Corp
FYNAKOLBOR Weatherbest
FYNAK-KOTE Certo-Depo Co
FYNGARD Richmond Fireproof Door Co
G B DUCT Gustin-Bacan Mfg
G & P Grinding & Polishing Mach Corp
G S D Glass Shower Door Co
GACOR WINKERS Eagle Electric Mfg Co
GALAXY-ONE Galvalume-Nairn Inc
GALVA-TEX Rockeote Paint
GALVA TWIST Jeffery Form Tile Co
GALVANUM Vita-Var Corp
GALVINOXIDE Rust-Oxide

 찾아보는 것을 원하시는 주제에 맞는 텍스트를 제공해주세요. 이에 따라 저는 가능한 한 정확한 답변을 제공할 수 있도록 노력하겠습니다.  

GARAGE DORMAN
Dor-O-Matic Div
GARDN BEAUTY Gilbert & Bennett Mfg Co
GARDNCRETE Colorcrete Industries Inc
GARLAND Wellblit Stone Co
GARNET Behr-Manning Co
GASOMATIC Williams Oil-O-Matic
GAS SUPER Williamson Co
GASAYER Williamson Co
GASLINES Arka Air Conditioning Corp
GE General Electric Co
Apparatus Sales
GEE-VEE-LINE Gee Vee Line
GEM-SET Bay State Abrasive
GEMCO Moore Goodloe & E Inc
GENASCO Fry Lloyd A Roofing
GENCASEAL General Cable
GENCATROL General Cable
GENERAL General Bathroom Products Corp
GENERAL General Hardware
GENERAL Great Northern Mfg Co
GENERAL GIBRALTAR General Plywood Corp
GENIE Alliance Mfg Co Inc
GENRALAC Sapolin Paints Inc
GENUWOOD Parkwood Laminates Inc
GEOCOUSTIC Pittsburgh Corning Corp
GER-PAR Gering Plastics Div
GETTY Getty H & Co
GIBRALTAR Flat Metal Mfg
GILBARCO Gilbert & Barker
GILL Progress Mfg Co Inc
GLAMADOR Northern Industries Inc
GLAMOUR Farley & Loetscher
GLAS-GLAZ American Vitrified Products Co
GLASBARS Owens-Illinois
GLASPLEX Horn A C
GLASIRON Wolverine
Porcelain Enameling
GLASS-ONET Warp Bros
GLASSHEAT Continental
Radiant Glass Heating
GLASSURFACED Kirlin Co
GLASWELD US Plywood Corp
GLATEX US Gypsum Co
GLAZECOAT Johns-Manville
GLAZOL United Gilsonite Laboratories
GLAZON Triangle Conduct & Cable Co Inc
GLENDURA SOIL-PROOF
WALLCOVERINGS
Imperial Color Chemical
GLID-TONE Glidden Co
GLIDE Frants Mfg Co
GLIDE-ALL Woodall Industries
GLIDE-AWAY Farley & Loetscher Mfg Co
GLIDE-OMIR General Bathroom Products Corp
GLIDE-OMIR Great Northern Mfg Co
GLIDE-MASTER Cox Arthur & Sons Inc
GLIDE-ZERO Wagner Mfg Co
GLIDER Monarch Industries
GLIDEX Caldwell Mfg Co
GLIDORAMA Whizer Ind
GLINTO Sapolin Paints Inc
GLO-FLEX Globe Products Co
GLO-GLAZE Globe Paints Works
GLO-GLAZE Globe Roofing Products Co Inc
GLOBOILDE Globe Paint
Works Inc
GLONAME Globe Paint
Works Inc
GLO-TONE Martin-Senour Co
GLYDE-WIN Arnold Alter
Aluminum Co
GOLD BAK Alco Inc
GOLD BOND National Gypsum
GOLD CROWN Pioneer Gen E Motor Corp
GOLD MEDAL Patent Scaffolding Co
BRAND NAMES
DIRECTORY

GOLD SEAL Dalton Mfg Co
GOLD SEAL Reese Metal Weatherstrip Co
GOLD STRAND Colorado Fuel & Iron Corp
GOLDEN LINK Kaiser Aluminum & Chemical Companies Inc
GORDON DOOR Gordon Mfg
GOSSETT Kees F D Mfg Co
GFX Georgia Pacific Corp
GRAIN-TEX Mastic Corp
GRAINGLO Puget Sound Plywood Inc
GRAND PRIZE US Gypsum Co
GRANDVIEW Miami Cabinet
GRANITEX Mosaic Tile Co
GRANITEX Transon Labs Inc
GRANOLITH Barreled Sunlight Paint Co
GRAVEL-SPREADER Air Placement Equipment
GRAYLITE Insulite Div
GRAYS HARBOR Mackie Mill
GRAYSTONE Craystone Div
GREASEPTOR Zurn Industries
GRECIAN Insulite Div
GREEN-LABEL Johnsens Wax
GREENCON Clipper Mfg Co
GRENADIER Wakefield Co
GRIP-LATE Sanford
GRIP-Late Co
GRIDITONE Armstrong Cork
GRIDVUE Air Vue Products
GRISTRIP Griffin Mfg Co
GRILLADIER Bennett-Ireland
GRID-O-FLEX Merit Products
GRID-O-MATIC Ovation Tool Co
GRIP-SNAP Sergeant & Co
GRIP TRED FLEXcone Corp of America
GRIPSTAYS Maze W H Co
GRIP-TEC B & T Metals Co
GRITCLOTH Bay State Abrasive Products
GUARD Columbus Coated Fabrics Corp
GUARDIAN Corbin P & F Div
GUARDIAN General Cable Corp
GUARDIAN Pittsburgh Plate Glass Co
GUIDE-O-MATIC Barrett Cravens Co
GULF SPRAY Aldrich Co
GULFSPRAY Binswander Glass
GULFSTAR Binswander Glass Co
GUM-A-TUB Protectub Inc
GUM-BESTOS Wilson Grant Inc
GYP C DOODLE Gypsum Ceiling Jack Co
GYP C FLOOR Gypsum Ceiling Jack Co
GYP C GRAB Gypsum Ceiling Jack Co
GYP C TRAC Gypsum Ceiling Jack Co
GYP C PROP Gypsum Ceiling Jack Co
GYRO-SPENDER Gyro Brass Mfg Corp
H D Bridgeport Brass Co
H & H Arrow Hart & Hegeman Elev Co
H & P Products Inc
H & P BRAND Hamell & Parke
HADDON HALL Wood-Mosaic Corp
HAKO PRODUCTS Hachmeister Inc
HAM R TOOLS Fastway Fasteners Inc
HAMILTON Remington Alum Window Corp
HAMMER-SETS Rawplug Co
HANDICOIL B & T Metals Co
HANDIE TALKIE Motorola Communications & Electronics
HANDY PLASTER Coddington E D Mfg Co

(Continued on page 88)
(Continued from page 87)

HARCO Veach-May-Wilson Inc
HARCO BRAND Hardwood Corp of America
HARCO Sonneborn Chemical & Refining
HARCOL Hastings Aluminum Products Inc
HARGRAVE Cincinnati Tool Co
HARDSHELL Insulite Div
HARDCO Aluminum Co
HARDLAP Insulite Div
HARD-GLOSS Johnson's Wax
HARD LABEL Dill Co
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Site planning
Concrete, masonry, tile, brick
Framing
Roofing, siding, insulation, sheathing
Doors, windows
Plumbing, water supply
Heating, cooling, ventilation
Electrical, wiring
Floor, wall, ceiling material
Millwork, cabinets
Hardware, building specialties
Appliances
Paints, finishes, waterproofing
Tools, equipment
SOFTWARE PLANNING

How to Select a Subdivision Site

GENERAL PREPARATIONS:

The site chosen for your houses should first fit the local home market. Determining this market demand, both as to house type and price range, population growth and housing needs, is a basic precaution, particularly if you are buying in an area where land prices are high and your investment will be costly. A good deal of this market information is available from local agencies such as your Chamber of Commerce and Planning Commission, from the FHA and U.S. Bureau of Census. Much of this type of information for specific cities has been summarized by American Builder in its series of research studies, "Markets on the Move."

Once you have decided what and for whom you are building, the choice of acreage is already narrowed down. Cost of the land, amount of grading involved, public utilities available, adjacent land use, zoning ordinances are the next considerations. A careful check of these factors against your original market plan and cost estimate will narrow the choice once again.

It is important to remember, too, that the FHA and other loaning agencies are extremely careful of physical environment when rating a location. To establish the stability of value and desirability of a site FHA considers: protection from adverse influences, such as industry, airports, etc., freedom from special hazards, such as high speed traffic, fire hazards; adequacy of civic, social and commercial centers; adequacy of transportation; and general appeal.

The check list below can be used to quickly evaluate a potential subdivision site and compare it with the others under consideration. You can tear this one out of the magazine or have it copied into an office form for convenient use. You may also want to add some new check points to it to cover your local problems.

CHECK LIST:

<table>
<thead>
<tr>
<th>Site</th>
<th>Size</th>
<th>Acres</th>
<th>Location Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direction from city</td>
<td>Class of surrounding development:</td>
<td>high</td>
<td>medium</td>
</tr>
<tr>
<td>Class from central business district</td>
<td>Distance from major employment centers</td>
<td>Distance from employment and center</td>
<td>Travel time to employment and center</td>
</tr>
</tbody>
</table>

Presence of Community Facilities

<table>
<thead>
<tr>
<th>Existing shopping center or stores:</th>
<th>Size and type</th>
<th>Distance</th>
<th>New center feasible:</th>
<th>yes</th>
<th>no</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of supporting area</td>
<td>Schools:</td>
<td>Elementary</td>
<td>High School</td>
<td>Nursery Schools</td>
<td>Church:</td>
</tr>
</tbody>
</table>

Recreations: | Name | Distance |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Parks</td>
<td>Playgrounds</td>
<td>Other</td>
</tr>
<tr>
<td>Other facilities such as library, colleges, etc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Environment Factors — Tract — Surrounding Area

<table>
<thead>
<tr>
<th>Zoning</th>
<th>Private Covenants</th>
<th>Subdivision Regulations</th>
<th>Surrounding development: kind</th>
<th>good</th>
<th>fair</th>
<th>poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tract abuts heavily traveled thoroughfare:</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Prevailing wind | Industrial smoke: Yes | No |
| Airports: | Distance | Relation to approaches |
| Airports: | Distance | Relation to approaches |

Site Factors

<table>
<thead>
<tr>
<th>Raw Land Price</th>
<th>per acre. Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Water Supply Connections: yes</td>
<td>no</td>
</tr>
<tr>
<td>Distance and size of nearest main</td>
<td>Will require—dependent system</td>
</tr>
<tr>
<td>Individual wells</td>
<td>Public Sewer—connections: yes</td>
</tr>
<tr>
<td>Distance, size and inver of nearest main</td>
<td>Will require—dependent system</td>
</tr>
<tr>
<td>Septic tanks</td>
<td>Topography: hilly</td>
</tr>
<tr>
<td>Elevation of site:</td>
<td>Highest point</td>
</tr>
<tr>
<td>Estimated amount of land over 8%</td>
<td>Elevation with relation to existing streets:</td>
</tr>
<tr>
<td>Heavy grading needed:</td>
<td>for streets</td>
</tr>
<tr>
<td>Swamp areas</td>
<td></td>
</tr>
<tr>
<td>Type of soil</td>
<td>Rock outcrop or depth of soil cap</td>
</tr>
<tr>
<td>Heavy woods</td>
<td>Type of development indicated by check list:</td>
</tr>
<tr>
<td>Garden apartments</td>
<td>Small Shopping Center</td>
</tr>
<tr>
<td>Large Lots required—estimated size</td>
<td>Price range indicated by survey</td>
</tr>
<tr>
<td>Current Market Demand</td>
<td>Rating of site for various uses:</td>
</tr>
<tr>
<td>Are indicated uses permitted by zoning or covenants?</td>
<td>Remarks:</td>
</tr>
</tbody>
</table>

How to Grade a Site

SETTING OF GRADE STAKES: The surveyor very often is called upon to "give grade." This means that he must set marks, like tops of stakes, nails on forms, and keel marks at required elevations. Where the required elevation itself cannot be marked, giving grade consists of marking reference points at or near the construction, which are definite distances above or below actual grade. Where the grade marks are not placed directly on the forms or other parts of the work, they are transferred to the work by carpenter's levels and rules.

CUT AND FILL: When the grade elevation (elevation of future construction) is below the grade mark placed on a stake, cut is indicated. A mark set 2'-0" above the actual grade elevation is noted as cut 2'-0" or C 2'-0". When the final grade elevation is above the grade mark placed on a stake, fill is indicated. A fill would be marked F 3'-0". The two cases are indicated in Fig. 1.

The height of instrument is determined by a backsight on a bench mark. The grade elevation is known elev. 98.67' for reference during construction. Compute rod for grade = 104.23' — 98.67' = 5.56'. Set rod for grade = H.L. (Height of instrument) — elevation of grade. Suppose H.L. has been determined as 104.50', grade elev. = 97.75'. Rod for grade = 104.50' — 97.75' = 6.75'. Cut rod = Rod for grade — C 4.75' = 6.75' — 2.00' NAIL DRIVEN 2'-0" ABOVE GRADE. To determine the amount of the interval C to use, take a reading on the ground where the stake was driven. Suppose this rod reading is 5'. Then it will be possible to drive a nail into the grade stake which will be 2'-0" above grade. To calculate the target setting for a 2'-0" cut use the following formula:

\[
\text{CUT ROD} = \text{Rod for Grade} - \text{C 4.75'} = 6.75' - 2.00' = 4.75'.
\]

Suppose H.L. = 104.50', grade elev. = 97.75'. Rod for grade = 104.50' — 97.75' = 6.75'. If the target is set at 6.75', the ground elevation will be above the grade elevation. Therefore, a nail will be set on the grade stake at some half foot interval above the actual grade elevation (See Fig. 4). To determine the amount of the interval C, take a reading on the ground where the stake was driven. Suppose this rod reading is 5'. Then it will be possible to drive a nail into the grade stake which will be 2'-0" above grade. To calculate the target setting for a 2'-0" cut use the following formula:

\[
\text{CUT ROD} = \text{Rod for Grade} - \text{C 4.75'} = 6.75' - 2.00' = 4.75'.
\]

TO GIVE GRADE ON INSIDE OF FORM: To give grade on the inside of a form (Fig. 3) or other vertical construction surface, the same procedure is followed. A nail is usually driven in at grade elevation. When no support such as the top of a stake or a side of a form is available to mark the proper grade elevation, it is customary to set grade stakes at a certain number of half feet above or below grade. The number of half feet used is often different at different stakes, and the stakes worked accordingly. To accomplish this, set the target a certain number of half feet above or below the value of the rod for grade.

GRADE FILL: The case for fill is handled as shown in Fig. 5. Calculate rod for grade = 93.35' — 91.28' = 2.07' When target is set at 2.07", the bottom of the rod will be above top of grade stake. Therefore, the nail must be driven into the grade stake which is some half foot interval below actual grade elevation.

To determine proper amount of interval F to use, take a reading on the rod with it held on the ground next to the grade stake. If this had been 3.35", it would indicate F = 1'-0" should be used. To calculate the target setting for a 1'-0" fill use the following formula:

\[
\text{FILL ROD} = \text{Rod for Grade} - F = 93.35' - 1.00' = 92.35'.
\]

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

RIGHT TRIANGLE METHODS FOR LAYING OUT A BUILDING

Establish a base line to mark out one end or side of a building. Erect stakes A and B at ends of line and drive a nail in the center of each stake to locate accurately the corners. Next drive a stake along line AB exactly 50' from A. Then drive another stake in at a point 50' from the center of stake A, and 10' from the center of stake F. EAF is then a right triangle. AE extended the proper distance to point D establishes the third point of the building. Set stakes and batter boards at corners beyond corners A, B, C, and D at some convenient height—usually top of foundation wall. Attach strings to batter boards and level. Strings must cross at corners of building. Nails should be driven in the battered where strings are fastened, so that if strings are broken or removed, they can be replaced accurately. Other corners of the building should be located similarly.
Driveway Design

FRONT ENTRANCE GARAGE

SIDE ENTRANCE GARAGES

MAXIMUM DRIVEWAY GARAGE

SEMI-CIRCULAR DRIVEWAY 1/32" = 1'-0"

1959 AUTOMOBILES LENGTH WIDTH WHEELBASE OVERHANG
RAMBLER AMERICAN 178.3" 73" 100" 31" 47"
CADILLAC SPECIAL 225" 80.2" 130" 35.6" 51.7"

DRIVEWAY ENTRANCES FROM STREET

SCALE 1/32" = 1'-0"

COMPACTED SOIL OR CRUSHED STONE RETAINING WALL CONCRETE CURBS

AVERAGE WIDTH CONCRETE RUNWAYS

LOW RETAINING WALL

SCALE 1/16" = 1'-0"

SCALE 1/4" = 1'-0"

SCALE 1/2" = 1'-0"
### NOMINAL LENGTH OF CONCRETE MASONRY WALLS BY STRETCHERS

(Based on units 15%" long and half units 7½" long with ¾" thick head joints)

<table>
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<tr>
<th>LENGTH OF WALL</th>
<th>NO. OF UNITS</th>
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<th>NO. OF UNITS</th>
<th>LENGTH OF WALL</th>
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<tr>
<td>0' 8&quot;</td>
<td>½</td>
<td>20'-8&quot;</td>
<td>1½</td>
<td>40'-8&quot;</td>
<td>30½</td>
<td>60'-8&quot;</td>
<td>45½</td>
</tr>
<tr>
<td>1'-4&quot;</td>
<td>1</td>
<td>21'-4&quot;</td>
<td>16</td>
<td>41'-4&quot;</td>
<td>31</td>
<td>61'-4&quot;</td>
<td>46</td>
</tr>
<tr>
<td>2'-0&quot;</td>
<td>1½</td>
<td>22'-0&quot;</td>
<td>16½</td>
<td>42'-0&quot;</td>
<td>31½</td>
<td>62'-0&quot;</td>
<td>46½</td>
</tr>
<tr>
<td>2'-8&quot;</td>
<td>2</td>
<td>22'-8&quot;</td>
<td>17</td>
<td>42'-8&quot;</td>
<td>32</td>
<td>62'-8&quot;</td>
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<tr>
<td>3'-4&quot;</td>
<td>2½</td>
<td>23'-4&quot;</td>
<td>17½</td>
<td>43'-4&quot;</td>
<td>32½</td>
<td>63'-4&quot;</td>
<td>47½</td>
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<tr>
<td>4'-0&quot;</td>
<td>3</td>
<td>24'-0&quot;</td>
<td>18</td>
<td>44'-0&quot;</td>
<td>33</td>
<td>64'-0&quot;</td>
<td>48</td>
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<tr>
<td>4'-8&quot;</td>
<td>3½</td>
<td>24'-8&quot;</td>
<td>18½</td>
<td>44'-8&quot;</td>
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<td>48½</td>
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<td>45'-4&quot;</td>
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<td>65'-4&quot;</td>
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<tr>
<td>6'-0&quot;</td>
<td>4½</td>
<td>26'-0&quot;</td>
<td>19½</td>
<td>46'-0&quot;</td>
<td>34½</td>
<td>66'-0&quot;</td>
<td>49½</td>
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### NOMINAL HEIGHT OF CONCRETE MASONRY WALLS BY COURSES

(Based on units 7¼" high and ¾" thick mortar joints)

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<th>HEIGHT OF Wall</th>
<th>NO. OF UNITS</th>
<th>HEIGHT OF WALL</th>
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</tbody>
</table>

**HOW TO USE THESE TABLES**

The tables on this page are an aid in estimating and designing with standard concrete masonry units. The following are examples of how they can be used to advantage.

**Example:**

Estimate the number of units required for a wall 108' wide by 30' long by 11 courses high.

From table: 108' = 57 units

57 = 108 = 57 No. masonry units required.

**Example:**

Estimate the number of units required for a foundation 24' wide by 30' long by 11 courses high. 2 x 24 = 48

2 x 30 = 60

108" = distance around foundation.

From table: 108" = 81 units

81 x 11 = 891 No. masonry units required.

This table can also be useful in the layout of a building on a modular basis to eliminate cutting of units. Example: If design calls for a wall 41'-4" long it can be found from the table that making this wall 41'-4" will eliminate cutting units and consequent waste. Example: If the distance between two openings has been tentatively established at 2' consulting the table will show that 2'-0" dimension would eliminate cutting of units.
# Concrete Estimating

## Cubic Yard Contents of Walls and Slabs

<table>
<thead>
<tr>
<th>No. SQ. FT. IN WALL</th>
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<th>4&quot;</th>
<th>6&quot;</th>
<th>8&quot;</th>
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<th>18&quot;</th>
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<th>22&quot;</th>
<th>24&quot;</th>
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<tbody>
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<td>0.0124</td>
<td>0.0185</td>
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</table>

### How to Use This Table

This table gives the cubic yard factors to use in estimating quantities of concrete required for walls, slabs, walks or drives when the square footage is known.

**Example:** Find the number of cubic yards of concrete required for the walls of a foundation 24' x 30' x 8' — 10" thick.

\[
2 \times (24 + 30) \times 8 = 864 \text{ sq. ft.}
\]

Use factors from table for 10" wall thickness:

- 24.64 cu. yds.
- 18.48 cu. yds.
- 12.40 cu. yds.
- 7.44 cu. yds.

Total: 1.848 cu. yds. of concrete required.

Where concrete thickness is an odd number of inches use factors for double the thickness and divide result by 2. **Example:** For 9" walls use 18" factors and divide final quantity in half.

## Concrete Footing Quantity Factors

<table>
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<tr>
<th>(Cu. Yd. per 10 Lin. Ft.)</th>
</tr>
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<tbody>
<tr>
<td>WIDTH OF FOOTING IN INCHES</td>
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</table>

### How to Use This Table

This table gives the cubic yard factors to use in estimating quantities of concrete required for footings when the total lineal feet is known.

**Example:** Find the number of cubic yards of concrete required for a footing 18" wide, 10" thick for a foundation wall 24' x 30'.

\[
2 \times (24 + 30) = 108 \text{ lin. ft.}
\]

From the table it is found that 10 lin. ft. of 18" x 10" footing contains .462 cu. yds. (or .0462 for 1 lin. ft.)

Multiply .0462 x 108 = 4.989 cu. yds. for concrete required

**NOTE:** This table is also useful in estimating the quantity of earth to be removed from footing excavations. Follow the same procedure as outlined above.
## TABLE 1

FOUR-INCH MODULAR-BRICK FACING WALLS

### RUNNING BOND

<table>
<thead>
<tr>
<th>Nominal Size of Brick*</th>
<th>Number of Brick per Sq. Ft. of Wall</th>
<th>Cu. Ft. of Mortar per Sq. Ft. of Wall**</th>
<th>Cu. Ft. of Mortar per 1000 Brick**</th>
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</thead>
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<td>1/2&quot; Joint</td>
<td>3/4&quot; Joint</td>
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*Actual size plus thickness of one joint
**10% added for waste

### MODULAR-BRICK

In Table 1 are quantities of units and mortar required to construct a 4-in. wall using 5 sizes of modular brick with two joint thicknesses. The mortar quantities shown are for the bed and head joints only. If this facing is to be applied to a backup wall, the quantity of mortar required for the interior vertical or collar joint must be added. These quantities are as follows:

- .0031 cu. ft. for 1 sq. ft. mortar joint 1/4" in thick.
- .0035 cu. ft. for 1 sq. ft. mortar joint 1/2" in thick.
- .00417 cu. ft. for 1 sq. ft. mortar joint 3/4" in thick.

The brick quantities shown are for brick laid in running bond. For other bonds in which full headers are used, the correction factors in Table 4 must be added. The 2-3/4x4x8-in. size brick is commonly referred to as the "Standard Modular" size.

### TABLE 2

EIGHT- AND TWELVE-INCH BRICK BACKUP WALLS

<table>
<thead>
<tr>
<th>Nominal Size of Brick*</th>
<th>Number of Brick</th>
<th>8&quot; Wall Cu. Ft. of Mortar**</th>
<th>12&quot; Wall Cu. Ft. of Mortar**</th>
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*Actual size plus thickness of one joint
**10% added for waste

### TABLE 3

NON-MODULAR SOLID-BRICK WALLS IN RUNNING BOND

No headers, or pattern made with blind headers

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<th>WALL AREA</th>
<th>4-IN. WALL</th>
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<th>7-IN. WALL</th>
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<td>CU. FT. MORTAR</td>
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</tbody>
</table>

NOTE: 1/4" joints completely filled, including-vertical interior joints of 8-in., 12-in. and 16-in. walls. For estimating number of facing and backup brick in any particular type of bonds use correction factor Table 4.

### TABLE 4

CORRECTION FACTORS TO BE APPLIED TO 4-INCH WALL QUANTITIES FOR ESTIMATING THE REQUIRED NUMBER OF FACING BRICK IN VARIOUS BONDS

<table>
<thead>
<tr>
<th>TYPE OF BOND</th>
<th>CORRECTION FACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common bond with full header every 5th course</td>
<td>20% or 1/5</td>
</tr>
<tr>
<td>Common bond with full header every 6th course</td>
<td>16.7% or 1/6</td>
</tr>
<tr>
<td>Common bond with full header every 7th course</td>
<td>14.3% or 1/7</td>
</tr>
<tr>
<td>English bond, alternate courses full headers</td>
<td>50% or 1/2</td>
</tr>
<tr>
<td>English or Dutch bond with full headers every 6th course and blind headers in intermediate courses</td>
<td>16.7% or 1/6</td>
</tr>
<tr>
<td>Flemish bond, alternate stretchers and full headers every 6th course</td>
<td>33.3% or 1/3</td>
</tr>
<tr>
<td>Flemish bond, with stretchers and full headers every 6th course, intermediate courses with blind headers</td>
<td>5.6% or 1/8</td>
</tr>
<tr>
<td>Flemish cross bond, alternate courses with stretchers and headers</td>
<td>16.7% or 1/6</td>
</tr>
<tr>
<td>Double header and stretcher every 6th course</td>
<td>8.3% or 1/12</td>
</tr>
<tr>
<td>Double header and stretcher every 5th course</td>
<td>10% or 1/10</td>
</tr>
</tbody>
</table>
CONCRETE, MASONRY, TILE, BRICK
Concrete Block and Brick Details

TYPICAL SHAPES AND SIZES OF CONCRETE MASONRY UNITS

ESTIMATING STRETCHER AND CORNER BLOCKS: Areas of all openings should be deducted from the total wall surface to get the net area of wall. From this the number of stretcher blocks and the number of corner blocks can be determined.

AREA OF THE WALL: From the perimeter of the wall, deduct four times the thickness of the wall, and multiply by the height of the wall. This is the area of the wall for masonry estimating. The formula avoids doubling of corners.

Example: Find the area of the wall in the plan and section shown: The perimeter of the wall is 20' + 20' + 10' + 10' = 60 linear feet. 60 - 4 (corners) = 56 lin. ft.

Multiply: 56 lin. ft. by the height of wall, or 56 x 6.37 = 356.72 sq. ft. or 357 sq. ft.

When the square feet of the wall are known, refer to Table 1 giving the number of blocks per 100 sq. ft. of wall.

<table>
<thead>
<tr>
<th>Size of Block</th>
<th>Wall Thickness</th>
<th>Number of Units per 100 sq. ft. of Wall</th>
<th>Mortar (cu. ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 x 8 x 16</td>
<td>8</td>
<td>110</td>
<td>3.25</td>
</tr>
<tr>
<td>8 x 8 x 12</td>
<td>8</td>
<td>146</td>
<td>3.50</td>
</tr>
<tr>
<td>8 x 12 x 16</td>
<td>12</td>
<td>110</td>
<td>3.25</td>
</tr>
</tbody>
</table>

Thereore: 357 ÷ 100 = 3.57

110 blocks = 100 sq. ft.
357 sq. ft. = 3.57 x 110 = 393 blocks.

CORNER BLOCKS: The height of the wall is 6'-4½" or 76½ inches. 76½ ÷ 8 (height of block) = 9 courses of block. Each corner has 9 blocks, 4 corners have 36 blocks.

Total blocks = 393
Corner blocks = 36
357 Stretcher Blocks

AMERICAN BUILDER
RECOMMENDED MIXES FOR SEVERAL CLASSES OF SMALL-HOUSE CONSTRUCTION

<table>
<thead>
<tr>
<th>Kind of Work</th>
<th>U. S. gallons of water to add to each 1-sack batch</th>
<th>Trial mixture for first batch</th>
<th>Maximum aggregate size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Damp sand &amp; coarse aggregate</td>
<td>Wet sand &amp; coarse aggregate</td>
<td></td>
</tr>
<tr>
<td>Foundation walls which need not be watertight,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mass concrete for footings, retaining walls, etc.</td>
<td>6%</td>
<td>Average sand 5 1/2</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watertight basement walls, walls above ground,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wall curbs and platforms, cisterns, septic tanks,</td>
<td>5%</td>
<td>Average sand</td>
<td></td>
</tr>
<tr>
<td>septic tanks, watertight floors, sidewalks,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>steppin-stone and flagstone walks, driveways,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>play courts, porch floors, basement floors, steps,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>piers, columns, etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: National Association of Home Builders Research Institute

HOW TO LAY CONCRETE IN COLD WEATHER

1. Heat the Materials
   a. Have concrete temperatures between 50° and 70° for slabs and building frames.
   b. For air temperatures between 30° and 40° F., heat the mixing water.
   c. For air temperatures below 30° F., heat mixing water and sand or both sand and coarse aggregate.
   d. Cover aggregate piles with tarps while heating.
   e. Avoid frozen aggregate lumps in concrete at time it leaves the mixer.
   f. Don't overheat. It may result in flash set.

2. Use Accelerators Carefully
   a. Don't use more than 2 lb. of calcium chloride per sack of cement to hasten hardening.
   b. Don't depend on any chemicals to prevent freezing.
   c. Don't use calcium chloride with other mixtures which accelerate hardening.

3. Provide Suitable Curing Temperatures
   a. Maintain temperature of concrete at 70° or above for three days or 50° or above for five days.
   b. Maintain temperature of high-early-strength concrete at 70° or above for two days or 50° or above for three days.
   c. Do not allow concrete to freeze during next four days.
   d. Cool concrete gradually at rate of one to two degrees per hour.

4. Protect the Concrete
   a. Insulation without artificial heat is often sufficient protection for slabs on ground and heavy sections.
   b. At lower temperatures, housing and artificial heat are necessary.
   c. Raise heating units above floor to avoid rapid drying of concrete underneath.
   d. Keep concrete moist, especially near heating units.

5. Remove Forms at Proper Time
   a. Allow ample time for concrete to attain required strength.

COLD-WEATHER CONCRETE-MASONRY CONSTRUCTION

If the air temperature is:

Below 40 Deg. F. But Above Freezing
All masonry materials should be covered and properly stored to prevent them from becoming wet from rain, ice or snow. The mixing water should be heated, but not over 160 deg. F. Temperature of mortar when placed in the wall should not exceed 100 deg. F. or be less than 70 deg. F. Protective coverings should be placed over the newly laid masonry walls.

Below Freezing But Above 0 Deg. F.
In addition to the preceding requirements the sand should be heated. The working area should be enclosed with protective coverings and artificial heat should be provided by salamanders or portable heaters. When the temperature falls below 20 deg. F. all concrete-masonry units (hollow and solid) should be heated to at least 50 deg. F.

Below 0 Deg. F.
Concrete-masonry construction should be stopped unless for emergencies, when great care must be taken to insure complete and tight enclosures plus all the preceding requirements.

COMPACTING: To compact concrete in foundation walls, a mechanical vibrator is ideal (although puddling or spading the concrete down is perfectly acceptable). Vertical penetration of vibrator, above, left, a few inches into previous lift at systematic regular intervals will give adequate consolidation. Random penetration, above, right, will not insure combination of layers, and will distribute aggregate badly.

PLACING SLAB CONCRETE: Concrete should be dumped into face of previously placed concrete, as above, left. Dumping away from previously placed concrete, above, right, causes separation.

PATCHING: Incorrect (A) and correct (B) methods of installing a patch are shown. The chipped area should be at least one inch deep with the edges at right angles to the surface. Correct method of spreading patch is shown above (C). The new concrete should project slightly beyond the surface of the old concrete. It should be allowed to stiffen and then troweled or otherwise finished to match and be flush with adjoining surfaces.
Admixtures are any materials other than water, aggregates, or cement added to concrete before or during mixing to make the concrete more suitable to a particular type of work. They will retard the concrete's setting time or accelerate it, and will entrain air or gas to help it withstand frost action or gas to counteract shrinkage and bleeding. They will increase concrete's workability and its resistance to corrosion. They will dampproof the concrete, make it water repellent, hasten or retard its floaability, and control shrinkage. Handled with reasonable caution—they sometimes alter the normal strength of concrete—admixtures give concrete new dimensions.

To accelerate set time:
Agents such as calcium chloride added up to 2% of the weight of portland cement will increase the rate of early hardening. This permits early removal of forms, creates a shorter curing period, advances the time when the concrete structure can be put in service, compensates for the retarding effect of other admixtures.

To retard set time:
Retarders are added to concrete in hot weather to prevent false set and to permit placing concrete in difficult positions. Builders sometimes place them on the inside of form faces to retard setting of the outside face of the concrete. This permits the builder to later brush away the laitance and expose the aggregate, creating a textural effect. Common retarders include starches, or cellulose products, sugars and acids, or salts of acids that contain one or more hydroxyl groups. They must be added to concrete in very small amounts.

To resist freezing:
Air entraining agents added to concrete incorporate small amounts of air in minute bubbles to help the concrete resist frost action. Air entraining also makes the concrete lightweight, and increases its plasticity and workability. Air entraining agents include natural wood resins, fats, various sulfonated compounds, and oils.

To counteract shrinkage:
Gas-forming agents will reduce shrinkage and bleeding in plastic concrete. Gas dispersed in concrete by generating agents also improves its resistance to frost but to a lesser degree than air—and produces a lighter weight concrete or mortar. Aluminum powder added at a ratio of 1 teaspoonful to each sack of cement reacts with the hydroxides in the hydrating concrete to produce minute bubbles of hydrogen. Adding the powder at a rate of 1/4 lb. to a sack of cement makes the concrete lightweight. Other gas-forming agents include zinc and magnesium powder, hydrogen peroxide and bleaching powder.

To increase workability:
Cementitious agents substituted for 10 to 25% of the weight of portland cement increase the concrete's workability, decrease bleeding and heat of hydration. A drawback is that they decrease the concrete's strength and must be added with care. The group includes natural cements, hydraulic lime, slag cement, and the pozzolans.

To reduce permeability:
Pozzolans substituted for part of the cement factor reduce concrete's permeability and increase its resistance to sulfates and the corrosive action of sea water. Pozzolans also add to concrete's workability. This group of admixtures includes fly ash, volcanic ash, heat-treated diatomaceous earths, and either heat-treated or raw shales and clays.

To dampproof:
Agents that dampproof concrete and reduce its permeability generally are classified as "soaps." They are inorganic salts of fatty acids such as calcium or ammonium stearate, or oleate. These soaps also increase the workability of the plastic concrete. Heavy mineral oil will make concrete water repellent. But it should not contain vegetable or mineral components and should have a viscosity of about SAE 60. Asphalt cutback oils and asphalt emulsions will also serve the purpose.

To add plasticity:
These agents will increase concrete's workability, a vital factor when concrete must be placed around closely spaced reinforcing, must be pumped, or chuted long distances. This group includes the powdered admixtures such as hydrated lime, diatomaceous earth, bentonite, fly ash. These admixtures generally are added to the concrete during batching, though sometimes they are premixed with dry cement. Large quantities of finely powdered admixtures in concrete tend to require a higher water-cement ratio than normal. Unless proper adjustments are made in the mix, some adverse effect can be expected in the concrete's strength, durability, and drying shrinkage. Air and gas entrainment also increase concrete's workability.

To hasten or retard grout set:
Calcium chloride or triethanolamine added to grout will hasten its set when it must work as a plugging agent. Mucic acid and other patented chemicals will retard its set to increase its pumpability and flow. Grout retarders include fly ash, bentonite, pumice, and diatomaceous earth.

To offset shrinkage:
Expanding agents are made by burning a mixture of gypsum, bauxite, and limestone to create a sulfoaluminous cement which, added to concrete, offsets shrinkage. Powdered iron and an oxidizing agent added to portland cement also make a non-shrinking concrete.

Other admixtures:
A variety of admixtures on the market will improve concrete's wear resistance, make it harder or softer (asphalt), foam it, make it easy to saw, and add color. Lumber yards and building material supply stores carry virtual chemical plants on their shelves.
PREVENTION OF SEGREGATION: Segregation of concrete means the separation of the heavy materials, such as the aggregates, from the lighter materials, sand and cement, when the concrete is poured into the forms. Constant supervision is essential to insure complete filling of the forms to prevent the common practice of depositing continuously at one point. Allowing the material to flow over a long distance will cause segregation.

Excessive amounts of tamping or shoveling in the forms will also cause the materials to separate. When the concrete is properly proportioned, the entrained air will escape and the mass will be thoroughly consolidated with very little shoveling. Light spading of the concrete next to the forms will prevent honeycombing and make surface finishing easier.

POOR PRACTICE—WILL GOOD PRACTICE CAUSE SEGREGATION

EFFLORESCENCE

SECOND DAY’S CAST

FIRST DAY’S CAST

ELEVATION OF WALL SHOWING LAITANCE

PREVENTION OF LAITANCE: Laitance is the formation of a froth of light materials on the surface of fresh concrete. It can only form from the presence of excess water, which causes the upper portion of a freshly poured concrete wall to be porous. The removal of a small layer of laitance still leaves several inches of porous concrete through which water will pass even under moderate pressure. The effect of this porous layer at the top of each day’s work can be seen in many structures subject to water pressure. The lower portion of the layer is found to be hard and dense while the upper portion shows efflorescence due to passage of water.

SELECTION OF AGGREGATE COMBINATIONS: The relative proportions of fine and coarse aggregates and the total amount of cement and water depends not only on the consistency of concrete required, but also on the grading of each aggregate. A combination of aggregates made up largely of coarse particles offers less total surface to be coated with cement paste than aggregates of fine particles.

For economical purposes, it is more desirable to use the lowest proportion of fine aggregate which will properly fill the spaces between coarse aggregates. Aggregates that are graded so that they contain many sizes are more economical than aggregates in which one or two sizes predominate, because the former contain fewer voids. The small particles fill the spaces between the larger particles which otherwise must be filled with cement paste. A properly proportioned combination of well-graded fine and coarse aggregates contains all sizes between the smallest and largest without an excessive amount of any one size.
Specify Du Pont Polyethylene Film for moisture protection... Get aids to promote this built-in value ... Profit from recognition of Du Pont quality

You get extra value from Du Pont film at no extra cost. And these display aids for your model home will now help buyers to "see" the extra care you've taken to protect against dampness.

1. “Welcome Walk-in” strip of sturdy polyethylene film keeps floors and rugs clean ... promotes quality symbol, the Du Pont name. 2. Sample sheet of film. 3. Salesroom Display Sign lists, at a glance, all the advantages of moisture-vapor protection. 4. Basement Hang Tag points out benefits of film under slab. 5. Hidden Protection Arrow shows where polyethylene film is used in crawl space.

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Newest thing in home building! Builders can find in concrete shell roofs plenty to stimulate sales interest. The variety of shapes is almost limitless—from angular folded plate to sweeping arcs. Many shell roof homes already have been built. Precasting of roofs, and reusable forms, are making shells even more practical. Concrete shells have much to offer in economy, in spanning ability—and in the fresh beauty that excites buyer interest. A big appeal is the fire-safety and low upkeep only concrete offers. Concrete is the material of modern living. From new-look walls to “pebbled” patios, concrete is helping to create sales!
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- Outperform any other forming system with less man-hours.
- Increase your profit from 10% to 50% over competitive systems.
- Cost less per job than competitive systems.

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Telephone Jordan 6-9813
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Atlas Masonry Cement provides the right mortar

A sculptured stone look is produced with decorative "Hi-Lite" concrete block here in single half-pyramid design. In exposed masonry construction, the projected face of this unit creates unusual highlights and shadows, pyramids, prisms, diamonds, gables. For laying up "Hi-Lite" block, as with other masonry units, ATLAS MASONRY CEMENT continues to be the preferred cement for mortar. It produces a smooth, workable mix, provides a strong bond, gives weathertight joints that are uniform in color. And ATLAS MASONRY CEMENT complies fully with ASTM and Federal Specifications. For information on masonry cement write: Universal Atlas, Dept. M, 100 Park Avenue, New York 17, N. Y.

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Division of
United States Steel

OFFICES: Albany · Birmingham · Boston · Chicago · Dayton · Kansas City · Milwaukee · Minneapolis · New York · Philadelphia · Pittsburgh · St. Louis · Waco

APRIL 1961
About 300 homes, priced from $23,500 to $32,500, are being built in San Jose, Calif., by Culligan Development Company of San Mateo, California. Lathing Contractor: William E. Ridgeway, Campbell, California. Plastering Contractor: Bill Wood & Son, San Jose, California. Shown are Bill Ridgeway, Ed Wood and Guy L. Rosebrook, Jr., Culligan's designer and superintendent.

"INSTANT BACKING WITH One-Step KEYMESH® Paperbacked

says Thomas Culligan of Culligan Development Company, a leading Northern California builder

"It's waterproof paper, belly band wire and wire mesh lath all in one," says Mr. Culligan.

"Just once around the house with this Keymesh Paperbacked Lath and the walls are all ready to be stuccoed.

"I'll admit, saying that it gives us 'Instant Stucco Walls' is somewhat of an exaggeration. But because it does allow my subs to go so quickly, we'll have the walls in this project done faster than any we've ever built."
3 STEPS REDUCED TO 1

... before, you had to attach waterproof paper, wire mesh and belly band wire separately. Now it's done all at once, with Keymesh Paperbacked Lath.

KEYSTONE STEEL & WIRE COMPANY
PEORIA, ILLINOIS
NEARLY 9 MILES of refrigerating coils overlie the insulating floor slab of Permalite insulating concrete in the L. C. Walker Sports Arena, Muskegon, Michigan. Architect: Ralph Legeman, Evansville, Ind., with Associate Architects Magnuson & Summer, Muskegon. Alstrom Construction, Inc., Muskegon, was the general contractor, and the insulating floor slab was installed by Rohn Fireproofing Co., Detroit, Michigan.

Unusual Permalite Concrete Applications
Keep Ice Cold, Insulate Sloped Roof

Lightweight Permalite insulating concrete was employed recently in two interesting applications—one a floor slab, the other a roof deck.

When the million-dollar L. C. Walker Sports Arena was erected in Muskegon, Michigan, one of the requirements was easy conversion from ice hockey to basketball. Over a natural sand base, Permalite insulating concrete was poured to a thickness of 11 inches. The insulating concrete, a 4:1 mix, was mixed adjacent to the job and pumped to point of placement. The refrigerating coils, almost 9 miles in length, were placed above this on special supports, and embedded in lightweight-aggregate concrete, with a structural concrete topping overall for a wear surface. About 550 cubic yards of Permalite perlite-aggregate insulating concrete were required for the 86 x 201' floor. Design and construction proceeded under U.S. Patent #2,761,181.

The other application—roof deck for a new building in Texas—is equally interesting and entirely different. Here Permalite-aggregate lightweight insulating concrete was selected to provide both insulation and fire-safety. The unusual feature lies in the application to a sloping roof, a technique used in many outstanding buildings but frequently overlooked in planning buildings with other than flat roof decks.

Complete information on the application and advantages of Permalite lightweight insulating concrete and plaster may be obtained by writing to Permalite, 612 So. Flower St., Los Angeles 17, Calif.
| SIZE OF TIMBER | 8'   | 10'  | 12'  | 14'  | 16'  | 18'  | 20'  | 22'  | 24'  | 26'  | 28'  | 30'  | 32'  | 34'  | 36'  | 38'  | 40'  |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 4 x 4           | 10%  | 13%  | 16%  | 18%  | 21%  | 23%  | 26%  | 29%  | 32%  | 34%  | 37%  | 40%  | 42%  | 45%  | 48%  | 50%  | 53%  |
| 4 x 6           | 16%  | 20%  | 24%  | 28%  | 32%  | 36%  | 40%  | 44%  | 48%  | 52%  | 56%  | 60%  | 64%  | 68%  | 72%  | 76%  | 80%  |
| 4 x 8           | 21%  | 26%  | 32%  | 37%  | 42%  | 48%  | 53%  | 58%  | 64%  | 69%  | 74%  | 80%  | 85%  | 90%  | 96%  | 101% | 106% |
| 4 x 10          | 26%  | 33%  | 40%  | 46%  | 53%  | 60%  | 66%  | 73%  | 80%  | 86%  | 93%  | 100% | 106% | 113% | 120% | 126% | 133% |
| 4 x 12          | 32%  | 40%  | 48%  | 56%  | 64%  | 72%  | 80%  | 88%  | 96%  | 104% | 112% | 120% | 128% | 136% | 144% | 152% | 160% |
| 4 x 14          | 37%  | 46%  | 56%  | 65%  | 74%  | 84%  | 93%  | 102% | 112% | 121% | 130% | 140% | 149% | 158% | 168% | 177% | 186% |
| 4 x 16          | 42%  | 53%  | 64%  | 74%  | 85%  | 96%  | 106% | 117% | 128% | 138% | 149% | 160% | 171% | 182% | 192% | 202% | 213% |
| 6 x 4           | 24%  | 30%  | 36%  | 42%  | 48%  | 54%  | 60%  | 66%  | 72%  | 78%  | 84%  | 90%  | 96%  | 102% | 108% | 114% | 120% |
| 6 x 6           | 32%  | 40%  | 48%  | 56%  | 64%  | 72%  | 80%  | 88%  | 96%  | 104% | 112% | 120% | 128% | 136% | 144% | 152% | 160% |
| 6 x 8           | 40%  | 50%  | 60%  | 70%  | 80%  | 90%  | 100% | 110% | 120% | 130% | 140% | 150% | 160% | 170% | 180% | 190% | 200% |
| 6 x 10          | 48%  | 60%  | 72%  | 84%  | 96%  | 108% | 120% | 132% | 144% | 156% | 168% | 180% | 192% | 204% | 216% | 228% | 240% |
| 6 x 12          | 56%  | 70%  | 84%  | 98%  | 112% | 126% | 140% | 154% | 168% | 182% | 196% | 210% | 224% | 238% | 252% | 266% | 280% |
| 6 x 14          | 64%  | 80%  | 96%  | 112% | 128% | 144% | 160% | 176% | 192% | 208% | 224% | 240% | 256% | 272% | 288% | 304% | 320% |
| 8 x 8           | 42%  | 53%  | 64%  | 74%  | 85%  | 96%  | 106% | 117% | 128% | 138% | 149% | 160% | 171% | 182% | 192% | 202% | 213% |
| 8 x 10          | 53%  | 66%  | 80%  | 93%  | 106% | 120% | 133% | 146% | 160% | 173% | 186% | 200% | 213% | 226% | 240% | 253% | 266% |
| 8 x 12          | 64%  | 80%  | 96%  | 112% | 128% | 144% | 160% | 176% | 192% | 208% | 224% | 240% | 256% | 272% | 288% | 304% | 320% |
| 8 x 14          | 74%  | 93%  | 112% | 130% | 149% | 168% | 186% | 205% | 224% | 242% | 261% | 280% | 298% | 317% | 336% | 354% | 373% |
| 8 x 16          | 85%  | 106% | 128% | 149% | 170% | 192% | 213% | 234% | 256% | 277% | 298% | 320% | 341% | 362% | 384% | 405% | 426% |
| 10 x 10         | 66%  | 83%  | 100% | 116% | 133% | 150% | 166% | 183% | 200% | 216% | 233% | 250% | 266% | 283% | 300% | 316% | 333% |
| 10 x 12         | 80%  | 100% | 120% | 140% | 160% | 180% | 200% | 220% | 240% | 260% | 280% | 300% | 320% | 340% | 360% | 380% | 400% |
| 10 x 14         | 93%  | 116% | 140% | 163% | 186% | 210% | 233% | 256% | 280% | 303% | 326% | 350% | 373% | 396% | 420% | 443% | 466% |
| 10 x 16         | 106% | 133% | 160% | 186% | 213% | 240% | 266% | 293% | 320% | 346% | 373% | 400% | 426% | 453% | 480% | 506% | 533% |
| 12 x 12         | 96%  | 120% | 144% | 168% | 192% | 216% | 240% | 264% | 288% | 312% | 336% | 360% | 384% | 408% | 432% | 456% | 480% |

**FRAMING**

**Lumber Calculator – Board Feet**

APRIL 1961
### Fiber Stress — 18,000# Steel Beam & Column Design

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The loads are given in kips, a kip being 1,000 lbs.

### SAFE LOADS FOR STEEL PIPE COLUMNS IN KIPS*

<table>
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<tr>
<th>NOMINAL SIZE in INCHES</th>
<th>ACTUAL DIAMETER in INCHES</th>
<th>WEIGHT in LBS. per FT.</th>
<th>LENGTH in FEET</th>
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<th>7</th>
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*The loads are given in kips, a kip being 1,000 lbs.

### SAFE LOADS FOR I-BEAM COLUMNS IN KIPS*

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*The loads are given in kips, a kip being 1,000 lbs.

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**Examples:**

To find correct I-beam size:

1. Determine uniformly distributed load.
2. Locate this load figure in column under span in feet.
3. Read size of I-beam required in column at extreme left.

To find pipe column size:

1. Determine load in kips. If column is to support center of beam supported at ends divide load in half.
2. Locate nearest load figure in column under required length.
3. Read size of pipe required in column at extreme left.

Follow same procedure as outlined for pipe columns.
### Trussed Rafter Designs

#### Dead Load + Live Load on Roof

**Dead Load Ceiling Framing**

- ANCHOR
- 3-2/1" SPLIT RINGS
  - 1-1/2" BOLT

**Chord Anchorage Detail**

- 45°
- 1X4° SCAB see
- 2"x4"

**2"x6" Chord**

- 22', 24', 26' Spans
  - Minimum
  - (For 4 in 12 Slope only)

**Heel Joint for**

- 2"x4" for spans up to 26' with plaster ceilings
- 2"x6" for spans over 26' with plaster ceilings

**Anchor Placement**

- 2-1/2" SPLIT RINGS
- 1-1/2" BOLT

**Lumber**

- F.B.M. Drywall Ceiling
- F.B.M. Plaster Ceiling

#### Dimensions

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<th>C</th>
<th>D</th>
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**Note:** Pieces in parentheses ( ) are used in place of equal length 2x4's when plaster ceiling is used.

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**Framing Diagrams**

For further information write Timber Engineering Co.

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**April 1961**
### 3/12 W-truss

**Typical glue-nail truss specifications**

#### Cutting Schedule

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**Bottom Chords**
- Member "H"
- Uncut Length
- 26/28' 30/32'
- 36" 36 1/2" 37" 37 1/2" 38" 38 1/2" 39" 39 1/2" 40" 40 1/2" 41" 41 1/2" 42" 42 1/2" 43"
- Extension "E"
- Overhang "O"
- Dimension "A"

**Top Chords**
- Cut Top Chords Only If Less Overhang Than That Listed in Item "O" Is Desired.

**Long Diagonal**
- Use Material Left After Cutting Short Diagonals

**Short Diagonal**
- 36" 36 1/2" 37" 37 1/2" 38" 38 1/2" 39" 39 1/2" 40" 40 1/2" 41" 41 1/2" 42" 42 1/2" 43"

**Bottom-Chord Splice Plates**
- Two Pieces 1" x 4" x 24"

**Scabs**
- Two Pieces 1" x 4" x 24"; One Piece 1" x 4" x 16"

### 3/12, 4/12, 5/12 King post truss

#### Cutting Schedule

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<th>26'</th>
<th>28'</th>
<th>30'</th>
<th>32'</th>
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**Top Chords**
- 2/12 26% 26 1/4" 26 1/2" 27% 28% 28 1/4" 28 1/2" 29% 30% 31% 32% 33% 34% 35% 36% 37% 38% 39% 40% 41% 42% 43% 44% 45% 46% 47% 48% 49% 50% 51% 52% 53% 54% 55% 56% 57% 58% 59% 60% 61% 62% 63% 64% 65% 66% 67% 68% 69% 70% 71% 72% 73% 74% 75% 76% 77% 78% 79% 80% 81% 82% 83% 84% 85% 86% 87% 88% 89% 90% 91% 92% 93% 94% 95% 96% 97% 98% 99% 100%

**Bottom Chords**
- 3/12 31% 31 1/2" 32% 33% 33 1/2" 34% 34 1/2" 35% 35 1/2" 36% 36 1/2" 37% 37 1/2" 38% 38 1/2" 39% 39 1/2" 40% 40 1/2" 41% 41 1/2" 42% 42 1/2" 43% 43 1/2" 44% 44 1/2" 45% 45 1/2" 46% 46 1/2" 47% 47 1/2" 48% 48 1/2" 49% 49 1/2" 50% 50 1/2" 51% 51 1/2" 52% 52 1/2" 53% 53 1/2" 54% 54 1/2" 55% 55 1/2" 56% 56 1/2" 57% 57 1/2" 58% 58 1/2" 59% 59 1/2" 60% 60 1/2" 61% 61 1/2" 62% 62 1/2" 63% 63 1/2" 64% 64 1/2" 65% 65 1/2" 66% 66 1/2" 67% 67 1/2" 68% 68 1/2" 69% 69 1/2" 70% 70 1/2" 71% 71 1/2" 72% 72 1/2" 73% 73 1/2" 74% 74 1/2" 75% 75 1/2" 76% 76 1/2" 77% 77 1/2" 78% 78 1/2" 79% 79 1/2" 80% 80 1/2" 81% 81 1/2" 82% 82 1/2" 83% 83 1/2" 84% 84 1/2" 85% 85 1/2" 86% 86 1/2" 87% 87 1/2" 88% 88 1/2" 89% 89 1/2" 90% 90 1/2" 91% 91 1/2" 92% 92 1/2" 93% 93 1/2" 94% 94 1/2" 95% 95 1/2" 96% 96 1/2" 97% 97 1/2" 98% 98 1/2" 99% 99 1/2" 100%

**Splice Plates - Length**
- 2/12 24% 25% 26% 27% 28% 29% 30% 31% 32% 33% 34% 35% 36% 37% 38% 39% 40% 41% 42% 43% 44% 45% 46% 47% 48% 49% 50% 51% 52% 53% 54% 55% 56% 57% 58% 59% 60% 61% 62% 63% 64% 65% 66% 67% 68% 69% 70% 71% 72% 73% 74% 75% 76% 77% 78% 79% 80% 81% 82% 83% 84% 85% 86% 87% 88% 89% 90% 91% 92% 93% 94% 95% 96% 97% 98% 99% 100%

**Post Length**
- 2/12 24% 25% 26% 27% 28% 29% 30% 31% 32% 33% 34% 35% 36% 37% 38% 39% 40% 41% 42% 43% 44% 45% 46% 47% 48% 49% 50% 51% 52% 53% 54% 55% 56% 57% 58% 59% 60% 61% 62% 63% 64% 65% 66% 67% 68% 69% 70% 71% 72% 73% 74% 75% 76% 77% 78% 79% 80% 81% 82% 83% 84% 85% 86% 87% 88% 89% 90% 91% 92% 93% 94% 95% 96% 97% 98% 99% 100%

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Curtain Wall Systems

In many commercial and industrial buildings, the steel framework is the structural or main support of the building, while the "curtain wall" is a non-structural covering, consisting of glass and many types of lightweight insulating panels of various textures, colors, and patterns. There are three basic curtain wall systems in common use:

**FACING TYPE CURTAIN WALL**

In this type of wall (Fig. 1-a) the skeleton steel framework is filled in with a lightweight masonry material such as cinder block or hollow clay tile. However, the material used must comply with the local hourly fire rated codes and provide the necessary thermal insulation.

A skin of aluminum, stainless steel or other material may be applied to the external surface of the wall, giving both weather tightness and finish treatment. The panels are attached to the steel framework either before or after the backing is placed.

**PREFabricated Insulated Type Curtain Wall**

This type of curtain wall consists of panels made up of a synthetic insulating material sandwiched between an exterior and interior finished facing material (Fig. 1-b).

External facings may be of stainless steel sheet, aluminum sheet or extruded aluminum shapes, asbestos cement, plywood, or other exterior weather resistant materials. The inside face of the panel may be finished with aluminum, steel sheets, plywood, or compressed composition materials, with a painted surface if so desired.

A number of sandwich panels with their heat transmission coefficient "U" factors are shown in Fig. 2. These sandwich panels may be as thin as 1/8" without requiring additional back-up material. The panels are fastened to the steel framework of the building and are quickly installed in convenient sizes. They are lightweight and have good insulating qualities despite their thickness.

**Window Wall or Grid Type Curtain Wall**

In this system of curtain wall the external bay of the building is covered with a structural grid framework of aluminum extrusions or steel frame (Fig. 1-c). The grid may be filled in with glass or insulated panels of many patterns and colors. To insure weather tightness, sealing compounds or gaskets are used around the glass and the panels.

The window wall is easily installed, permitting large areas to be covered in a very short time. Standardization of the grid frame has made the window wall particularly economical.

---

### Prefabricated Insulated Wall Panels

<table>
<thead>
<tr>
<th>Material</th>
<th>U factor (unfilled)</th>
<th>U factor (filled)</th>
</tr>
</thead>
<tbody>
<tr>
<td>fibre glass filled</td>
<td>0.47</td>
<td>0.34</td>
</tr>
<tr>
<td>wood filled synthetic resin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>thickness of panel</td>
<td>1-1/8&quot;</td>
<td></td>
</tr>
</tbody>
</table>

---

### Structural Grid Receives Glass or Sandwich Panel

<table>
<thead>
<tr>
<th>Material</th>
<th>U factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 ga. steel porcelain enamel</td>
<td>0.20</td>
</tr>
<tr>
<td>18 ga. galvanized steel painted</td>
<td></td>
</tr>
<tr>
<td>2&quot; foam glass</td>
<td>0.15</td>
</tr>
</tbody>
</table>

---

**APRIL 1961**
POST-AND-BEAM CONSTRUCTION

The principal variation from conventional framing methods is the post-and-beam system, in which roof loads are concentrated on beams supported by posts, rather than continuously on the walls. (See Fig. 1) Spacing of the posts is determined by the strength of the beam that spans between them.

This method of construction gives complete flexibility. The roof structure can be of such materials as wood joists, planks, laminated wood strips, arches, and composition panels.

GLUED-LAMINATED LUMBER

This type of lumber results from the joining of two or more pieces of lumber by glueing. The lumber is generally of 1" or 2" material, glued together to form beams (Fig. 2) arches, columns, and many other structural members.

Advantages: the member is one-third stronger than a sawn member of equal size, giving more slenderness in design without sacrificing strength. Tests show that the glued joints are stronger than wood, and that time does not affect the adhesive qualities of the glue. Also, laminated lumber permits larger pieces of lumber in both cross-section and length than is possible in single pieces.

LAMINATED BEAMS AND PURLINS

Since laminated beams and purlins are manufactured by machine, and are planed and sanded to show the natural grain of the wood, they require no plastering, painting or other decorative treatment. They are economically practical when used as a finished product and exposed as part of the architectural treatment. When used merely as structural units they are generally more expensive than steel. For spans up to 30', solid timbers are usually cheaper than laminated sections, except for extremely heavy loads.

CONTEMPORARY FRAMING DETAILS

The contemporary framing in Fig. 3 employs five laminated wood bents in hollow rectangular shape, set 16' apart, from which the roof plane hangs and upon which the floor structure rests.

The 9" thick bents rise 16' and span 50'. They rest on a native stone foundation, cantilevering 8' over it on either side. Top and bottom chords are 30" deep. Ceiling beams are suspended from the laminated beams (Fig. 4) by joist hangers. The joist hangers are supported by a 3" x 1½" channel iron running lengthwise under each laminated beam. The channel iron is fastened by bolts running through the entire beam. The wood bents have 45° sawcuts running along both sides of the chord to receive the roof flashing (Fig. 5).

Roof purlins, 3" x 3", run at right angles to the ceiling beams and provide nailing for the roof sheathing on a plane with the bottom of the chord. The floor joists (Fig. 6) rest on the bottom chords of the laminated beams and span the 16' distance between bents.
Contemporary Framing Methods

CONTEMPORARY MILLWORK: System One
A new system of framing where only a number of milled sections are used can replace the stud wall of the conventional house. When in place, these milled sections will receive all doors, windows, glass or other wall panels. This innovation is as important to easy construction of modern houses as the stud frame wall was to the economy of the conventional house.

This system of framing employs standard milled sections cut from 2"x6" common lumber. When the floor slab or platform is in place, strip A (Fig. 7) is placed around the periphery of the rough floor, in place of the usual shoe or sole plate. This immediately produces the exterior bottom trim with drip and shadow line under the plywood panels used on the outside. It also provides the exterior door sills and, at the same time, the interior baseboards that will project above the finished floor. Fig. 8 shows how strip A is used on masonry construction.

Vertical 4 x 4s, widely spaced, are capped by another strip A on Fig. 9, 10. These are nailed directly on top of the posts, but act as head trim for all doors, windows, interior or exterior wall finishes, and again as sill for strips either of wood fascia or of glass inserted in the spaces between the ends of the roof beams. All vertical members B, B1, B2 serve as mullions and post casings since the building on which these milled sections are used are ideally suited to post-and-beam construction.
If you are a Component Manufacturer producing Trusses, Wall Panels, Door and Window Units, Pocket Door Frames, Lu-Re-Co Systems, Cupolas, Gable Ends, Non-Loadbearing Partitions, Garage Door Assemblies, Roof Sections, Floor Sections or other components, we will supply your needs for PRE-ENGINEERED, PRE-CUT PARTS for those components. Careful attention to close tolerances, angle cuts, drilling, notching, and other engineering features.

Individual parts strapped in separate packages. Palletized, too, if you so desire.

All parts manufactured from Grade-Marked, Stress-Rated, "Big A" Arkansas Soft Pine... the lumber that’s Straight, Strong and DRY!

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LACLEDE 34' OPEN WEB STEEL JOISTS
cut time and cost in new school construction

Ladue Junior High School in suburban St. Louis is an excellent example of the way economy and style can be blended in today’s school construction.

Cost saving was a pre-eminent factor in architect William B. Ittner’s design of this low-flung structure, with its long straight runs, free of costly jogs and bends. Further economy was achieved by allowing the rolling terrain to fall away from the single continuous ridgeline, rather than to follow the contours of the ground with multi-level roofs.

This design concept was based on the selection of open web steel joists as a versatile, economical structural material. Laclede 34’ joists, with special shallow-depth ends, were used to provide an unbroken slope from ridgeline to cantilevered overhang, two joists replacing the five structural elements formerly required in this type of roof construction.

General contractor on the project was Kloster Company. Neal J. Campbell was consulting engineer.
When used in accordance with FHA Minimum Property Standards for One and Two Living Units, FHA Bulletin No. 300.
“Our framing lumber savings are at least 30%. We also use Utility grade shiplap for wall and roof sheathing and subflooring. This saving gives us a profit margin and maintains our quality at the same time,” Builder Brown explained.

Profit starts at the saw table and carries through to the completed building, according to builders who have taken advantage of the money-making ability of Utility grade West Coast Lumber. It’s a grade that can be used for all types of framing—studs, plates, joists, rafters, headers and bracing.

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"MY PROFIT GOES UP
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Says ROY BROWN,
BUILDER AND DEVELOPER
OF FINE HOMES
IN BEEVERTON, OREGON
BIG MILL

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FORDYCE Lumber Company
FORDYCE, ARKANSAS

"BUY BRANDS YOU KNOW"
### Asphalt Roofing Guide

#### Asphalt Saturated Felt
- **Length**: 144, 36, 4, 2, 34, 36, 64, 4, 2, 74, 76, 4, 2, 34
- **Width**: 36, 4, 2, 76, 36, 4, 2, 34

#### Smooth Roll
- **Length**: 36, 36, 4, 2, 34, 36, 4, 2, 34
- **Width**: 36, 36, 4, 2, 34

#### Pattern Edge Roll
- **Length**: 36, 36, 4, 2, 34, 36, 36, 4, 2, 34
- **Width**: 36, 36, 4, 2, 34

#### 19" Selvage Double Coverage
- **Length**: 16, 16, 2, 34
- **Width**: 16, 12, 6, 5

#### Installation of Three-Tab Butt Shingles on Roofs of 4° Rise or More per Horizontal Foot
- **Head Lap**: 2" 5" 4" 2" 3" 4" 5" 2" 3" 4" 5"
- **Exposure**: 36" 36" 1.36 1.36 1.36 1.36 1.36 1.36 1.36 1.36 1.36

#### TYPICAL NAILS FOR ASPHALT ROOFING

<table>
<thead>
<tr>
<th>ROOFING</th>
<th>SHINGLES PER SQUARE</th>
<th>NAILS PER SHINGLE</th>
<th>NAILS PER SQUARE</th>
<th>LENGTH OF NAIL</th>
<th>LBS. PER SQUARE (APPROX)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROLL ROOFING</td>
<td>252</td>
<td>1&quot;</td>
<td>.73</td>
<td>1.12</td>
<td></td>
</tr>
<tr>
<td>ON NEW DECK</td>
<td>252</td>
<td>1&quot;</td>
<td>.73</td>
<td>1.12</td>
<td></td>
</tr>
<tr>
<td>ROLL ROOFING</td>
<td>181</td>
<td>1.34</td>
<td>.65</td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td>OVER OLD ROOFING</td>
<td>80, 6</td>
<td>504</td>
<td>1.16</td>
<td>3.32</td>
<td></td>
</tr>
<tr>
<td>19&quot; SELVAGE</td>
<td>504</td>
<td>1.16</td>
<td>3.32</td>
<td>7.04</td>
<td></td>
</tr>
<tr>
<td>OVER OLD</td>
<td>86, 4</td>
<td>361</td>
<td>1.34</td>
<td>6.03</td>
<td></td>
</tr>
<tr>
<td>SHINGLES</td>
<td>86, 4</td>
<td>361</td>
<td>1.34</td>
<td>6.03</td>
<td></td>
</tr>
<tr>
<td>GIANT AMERICAN</td>
<td>504</td>
<td>1.16</td>
<td>3.32</td>
<td>7.04</td>
<td></td>
</tr>
<tr>
<td>GIANT DUTCH LAP</td>
<td>82, 2</td>
<td>172</td>
<td>1.34</td>
<td>7.93</td>
<td></td>
</tr>
<tr>
<td>INDIVIDUAL</td>
<td>86, 4</td>
<td>361</td>
<td>1.34</td>
<td>6.03</td>
<td></td>
</tr>
</tbody>
</table>

(*#) Length of nail should always be sufficient to penetrate at least 3/4" into sound wood deck lumber. Nails should show little, if any, below underside of deck lumber.

---

**Pitch**
- **Three-Tab Square Butt Strip Shingle Can be Used (As Shown Above)**

**Minimum Pitch Requirements for Asphalt Roofing**

_Courtesy of the Asphalt Roofing Industry Bureau_
ROOFING, SIDING, INSULATION, SHEATHING

Red Cedar Shingles

- **Spaced or Solid Wood Sheathing:** Spaced sheathing should be 1-1/2", 1-3/4", or 2-1/4" min. Two nails for each shingle, 1/8" from edge, 1" to 3" above butt line of next course.

- **First Course:** Double or tripled.

- **Wall Sheathing:** For quarter pitch and steeper, use 5", 5-1/4", or 7-1/4" for "16", 18", 24" shingles respectively. For flatter pitches, use 3-1/4", 4-1/4", or 5-1/4" exposures. Choose shingles for uniform width, 2" to 3".

- **Hip:** Use alternate overlap.

- **Roofs:** Use alternate overlap.

- **Valley:** Use alternate overlap.

- **Ridge:** Mitered flashing behind.

- **Walls:** Wood strips nailed to studs.

- **Non-Wood Sheathing:** Inside corner.

- **Building Paper:** Outside corner.

- **Non-Wood Sheathing:** Inside corner.
**ROOFING, SIDING, INSULATION, SHEATHING**

**Insulation Guide**

### BETWEEN BRIDGING
- Make diag cut to fit insul above and below bridging.
- Adj insul to be fitted similarly.

### BETWEEN CEILING JOISTS
- Vapor barrier.
- Either vapor permeable asph., felt, wood strips, or lacing wire to hold insul. against flooring.

### IN WALLS
- Fasten flanges to studs.
- Vapor barrier towards interior.

### USE 6" BATTs WHERE RAFTERS are 2x8" or more, particularly in air conditioned houses.

### CRAWL SPACES
- Alternatives: lace bailing wire between joists, air conditioned with staples or arch. 11 gauge wire between joists.

### BLANKET SIZES

<table>
<thead>
<tr>
<th>Type A</th>
<th>Type B</th>
</tr>
</thead>
</table>
| 6" | 3" | 2"

### BETWEEN RAFTERS
- Allow air space for free air circulation between insul. & sheathing.
- Vapor barrier down.

### IN FLAT ROOFS
- Install furring and screen as shown if free air circulation parallel to rafters cannot be provided.

### IN CRAWL SPACES
- Lath fastened to joists.

### REFLECTIVE INSULATION
- Type A: 7/8", 1/2", 1/4".
- Type B: 1/4", 1/8".
- Alum is asphalt laminated to heavy craft paper on one or both sides.
- Type A used alone or with Type B, space eq. divided 24" widths.

### BLANKET SIZES

<table>
<thead>
<tr>
<th>Widths</th>
<th>Temp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15&quot;</td>
<td>-16°F</td>
</tr>
<tr>
<td>19&quot;</td>
<td>-20°F</td>
</tr>
<tr>
<td>23&quot;</td>
<td>-24°F</td>
</tr>
</tbody>
</table>

### AROUND PIPES
- Slice insulation in half, wedge half behind pipe, other half in front and secure.

### BATTs CAN BE INSTALLED TO PREVENT BLOCKING OF EAVE VENTS

---

**COURTESY: NATIONAL MINERAL WOOL ASSOCIATION**

**APRIL 1961**

**AROUND PIPES**

- Wedge insul. and vapor barrier behind water pipes.
- Slice insulation in half, wedge half behind pipes, other half in front and secure.

- Batt insulation can be installed to prevent blocking of eave vents.

**REFLECTIVE INSULATION**

- Type A: 7/8", 1/2", 1/4".
- Type B: 1/4", 1/8".
- Alum is asphalt laminated to heavy craft paper on one or both sides.
- Type A used alone or with Type B, space eq. divided 24" widths.

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<tr>
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<td>-24°F</td>
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</table>

**AROUND PIPES**

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- Slice insulation in half, wedge half behind pipes, other half in front and secure.

- Batt insulation can be installed to prevent blocking of eave vents.

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<tbody>
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<td>19&quot;</td>
<td>-20°F</td>
</tr>
<tr>
<td>23&quot;</td>
<td>-24°F</td>
</tr>
</tbody>
</table>

**AROUND PIPES**

- Wedge insul. and vapor barrier behind water pipes.
- Slice insulation in half, wedge half behind pipes, other half in front and secure.

- Batt insulation can be installed to prevent blocking of eave vents.
### WALL SHEATHING

<table>
<thead>
<tr>
<th>Product</th>
<th>Sizes</th>
<th>Recommended Thicknesses</th>
<th>Maximum Stud Spacing (O.C.)</th>
<th>Nail Size and Type</th>
<th>Nail Spacing (Panel Edge)</th>
<th>Nail Spacing (Intermediate)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fir Plywood</td>
<td>4&quot;x8'</td>
<td>1/2&quot;</td>
<td>16&quot;</td>
<td>6d Common</td>
<td>6&quot;</td>
<td>12&quot;</td>
<td>Apply with face grain perpendicular to studs.</td>
</tr>
<tr>
<td></td>
<td>4&quot;x8'</td>
<td>1/2&quot;, 3/8&quot;</td>
<td>24&quot;</td>
<td>6d Common</td>
<td>6&quot;</td>
<td>12&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4&quot;x8'</td>
<td>1/2&quot;</td>
<td>24&quot;</td>
<td>8d Common</td>
<td>6&quot;</td>
<td>12&quot;</td>
<td></td>
</tr>
<tr>
<td>Fiberboard (Vertical Application)</td>
<td>4&quot;x8'</td>
<td>1/2&quot;, 3/8&quot;</td>
<td>16&quot; or 24&quot;</td>
<td>11/8&quot;</td>
<td>12 ga. Galvanized Rfg. Nails</td>
<td>1/2&quot; head</td>
<td>3&quot;</td>
</tr>
<tr>
<td></td>
<td>4&quot;x8'</td>
<td>4&quot;x10'</td>
<td>1/2&quot;</td>
<td>16&quot;</td>
<td>11/8&quot;</td>
<td>12 ga. Galvanized Rfg. Nails</td>
<td>1/2&quot; head</td>
</tr>
<tr>
<td>Fiberboard (Horizontal Application)</td>
<td>2&quot;x8'</td>
<td>1/2&quot;</td>
<td>16&quot;</td>
<td>11/8&quot;</td>
<td>12 ga. Galvanized Rfg. Nails</td>
<td>1/2&quot; head</td>
<td>4&quot;</td>
</tr>
<tr>
<td>Gypsum Board (Horizontal Only)</td>
<td>2&quot;x8'</td>
<td>1/2&quot;</td>
<td>16&quot;</td>
<td>11/8&quot;</td>
<td>11 ga. Galvanized Rfg. Nails</td>
<td>1/2&quot; head</td>
<td>4&quot;</td>
</tr>
<tr>
<td>Wood (Diagonal or Horizontal Application)</td>
<td>1&quot;x4'</td>
<td>1&quot;x8'</td>
<td>16&quot;</td>
<td>8d Common</td>
<td>2 Nails at all Bearings</td>
<td>Joints in adjacent boards separated by 2 stud spaces.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Above 1&quot;x8'</td>
<td>16&quot;</td>
<td>8d Common</td>
<td>3 Nails at all Bearings</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### STAPLE APPLICATION SPECIFICATIONS

<table>
<thead>
<tr>
<th>Product</th>
<th>Thickness of Sheathing</th>
<th>Maximum Stud Spacing</th>
<th>Gauge of Staple</th>
<th>Minimum Crown of Staple</th>
<th>Minimum Length of Staple</th>
<th>Spacing at Edge of Sheath</th>
<th>Spacing at Intermediate Members</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiberboard Wall Sheathing (with Diagonal Bracing)</td>
<td>1/2&quot;</td>
<td>16&quot;</td>
<td>16</td>
<td>3/8&quot;</td>
<td>13/16&quot;</td>
<td>4&quot;</td>
<td>6&quot;</td>
<td>1. 1/2&quot; Fiberboard shall be special dense type. 2. Unless engineering analysis of racking resistance is submitted for FHA determination, each wall shall contain at least one eight foot or three four foot wall sections without openings. 3. Panel must be nailed around entire perimeter.</td>
</tr>
<tr>
<td></td>
<td>3/8&quot;</td>
<td>16&quot;</td>
<td>14</td>
<td>3/8&quot;</td>
<td>13/16&quot;</td>
<td>4&quot;</td>
<td>8&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2/3&quot;</td>
<td>24&quot;</td>
<td>16</td>
<td>3/8&quot;</td>
<td>11/16&quot;</td>
<td>4&quot;</td>
<td>8&quot;</td>
<td></td>
</tr>
<tr>
<td>Fiberboard Wall Sheathing (without Diagonal Bracing)</td>
<td>1/2&quot;</td>
<td>16&quot;</td>
<td>16</td>
<td>3/8&quot;</td>
<td>13/16&quot;</td>
<td>4&quot;</td>
<td>8&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3/8&quot;</td>
<td>16&quot;</td>
<td>14</td>
<td>3/8&quot;</td>
<td>13/16&quot;</td>
<td>3&quot;</td>
<td>6&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2/3&quot;</td>
<td>16&quot;</td>
<td>14</td>
<td>3/8&quot;</td>
<td>13/16&quot;</td>
<td>4&quot;</td>
<td>8&quot;</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Thickness</th>
<th>Maximum Stud or Joist Spacing</th>
<th>Minimum Gauge of Staple</th>
<th>Minimum Crown of Staple</th>
<th>Minimum Length of Staple</th>
<th>Maximum Spacing of Staples on Framing Members</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gypsum Lath</td>
<td>3/8&quot;</td>
<td>16&quot;</td>
<td>16</td>
<td>3/8&quot;</td>
<td>13/16&quot;</td>
<td>5&quot;</td>
<td>For Gypsum Lath, staples shall be driven with the crown parallel to the long dimension of the framing member, using not less than 4 staples per 16&quot; width of lath per framing member and not more than 5 1/2&quot; o.c. in such a manner that the crown bears tightly against the lath but does not cut into the faces of the lath. The legs of the staples shall be no less than 3/16&quot; from the ends and edges of the lath. For Gypsum Wall Sheathing, no less than 3 staples per 24&quot; width of sheathing per framing member and not more than 6&quot; o.c. for First Ply, etc., not more than 5 1/2&quot; o.c. on ceilings and 6&quot; o.c. on walls.</td>
</tr>
<tr>
<td></td>
<td>5/16&quot;</td>
<td>16&quot;</td>
<td>16</td>
<td>3/8&quot;</td>
<td>1&quot;</td>
<td>5&quot;</td>
<td></td>
</tr>
<tr>
<td>Gypsum Wall Sheathing (with diagonal Bracing)</td>
<td>3/8&quot;</td>
<td>24&quot;</td>
<td>16</td>
<td>3/8&quot;</td>
<td>1&quot;</td>
<td>4&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5/16&quot;</td>
<td>24&quot;</td>
<td>16</td>
<td>3/8&quot;</td>
<td>1&quot;</td>
<td>6&quot;</td>
<td></td>
</tr>
<tr>
<td>First Ply Only of Two-Ply System Gypsum Dry-Wall Interior Finish</td>
<td>3/8&quot;</td>
<td>16&quot;</td>
<td>16</td>
<td>3/8&quot;</td>
<td>1&quot;</td>
<td>5&quot; on ceilings 6&quot; on walls</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5/16&quot;</td>
<td>24&quot;</td>
<td>16</td>
<td>3/8&quot;</td>
<td>1 1/8&quot;</td>
<td>5&quot; on ceilings 6&quot; on walls</td>
<td></td>
</tr>
</tbody>
</table>
Asbestos-Cement Roof shingles may be applied on roofs having a slope of 5" in 12" or greater. Using the low slope application methods shown here, they may be applied on slopes as low as 2" in 12".

**Low-slope application method for American Method Individual shingles.**

- Alignment features of all shingles will be obscured by felt on every third course.
- Snap chalk lines to provide accurate alignment or use an alignment spacer made of wood or metal.

**Low-slope application for American Method Multiple-Unit shingles.**

- Ridge Roll used on Ridge as alternate to Ridge shingles.

---

### 4 Basic Types of Asbestos Cement Roof shingles

<table>
<thead>
<tr>
<th>Type</th>
<th>Width</th>
<th>Height</th>
<th>Thickness</th>
<th>Exposure</th>
<th>Approx. Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Method</td>
<td>8&quot;</td>
<td>16&quot;</td>
<td>3/4&quot;</td>
<td>7&quot;</td>
<td>350 lbs.</td>
</tr>
<tr>
<td>Individual Unit</td>
<td>9&quot;</td>
<td>18&quot;</td>
<td>3/4&quot;</td>
<td>7&quot;</td>
<td>585 lbs.</td>
</tr>
<tr>
<td>American Method</td>
<td>24&quot; to 14&quot; to 6&quot; to 30&quot;</td>
<td>15/16&quot;</td>
<td>1/2&quot;</td>
<td>6&quot; to 8&quot;</td>
<td>300 lbs.</td>
</tr>
<tr>
<td>Dutch Lap</td>
<td>16&quot;</td>
<td>16&quot;</td>
<td>5/8&quot;</td>
<td>12&quot; x 13&quot;</td>
<td></td>
</tr>
<tr>
<td>Ranch Design</td>
<td>24&quot;</td>
<td>12&quot;</td>
<td>3/8&quot;</td>
<td>20&quot; x 9&quot;</td>
<td></td>
</tr>
</tbody>
</table>

**Underlayment and interlayment must be 15 lb. asphalt- saturated organic felt.**

**Valley Work: 7" min. at top increasing 1" to each foot of length toward eaves.**

**Closed-Valley Flashing.**

**Open-Valley Flashing.**

**Ridge Flashing.**

---

**Ridge Roll used on Ridge as alternate to Ridge shingles.**

Asbestos-Cement Roof shingles are manufactured with holes properly located and punched to receive concealed roofing nails. Nails, which are not provided, must be made of non-corrosible metal or hot-dipped galvanized steel, needle or diamond pointed with heads approximately 3/8" dia. Underlayment and interlayment must be 15 lb. asphalt-saturated organic felt.
now ... PALCO-LOC ... tailor-made lumber in custom lengths to fit builder requirements, exactly.

Our finest Architectural Quality, certified kiln-dried redwood — finger-jointed and electronically glued to produce permanently strong, long pieces — for exterior or interior use. All specified, or any combination of lengths, at no extra cost!

Available in boards or worked patterns... also factory paint-primed if desired. Buy PALCO — standard of comparison since 1869.

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35 East Wacker Drive, Chicago 1, Illinois
2185 Huntington Drive, San Marino 9, California

PROFIT WITH PALCO.
The ladies buy the homes you build!

Make your homes instantly wanted ..."clothe" them in the natural beauty and warmth of genuine wood siding!

Whether for her person or her home, the discerning lady desires a wardrobe that is functional...practical...fashionable...handsome... and above all genuine. Just as with fine furs, homes "clothed" in genuine wood instinctively appeal to her! And for the very best, demand Weyerhaeuser 4-SQUARE®... the most dependable name in wood.

Weyerhaeuser Company
Lumber and Plywood Division

FREE COLORFUL "HOME FASHIONS" BOOK
helps you sell your homes "clothed" in genuine Weyerhaeuser 4-SQUARE siding. Include in your model homes. Handy request form speeds it to you. Write Weyerhaeuser Company, Trade Promotion Department, Tacoma 1, Wash.

Firm.
Address
City... Zone... State...
MORE COLORS for builders
LESS CARE for buyers...

Dover White • Sheffield Gray • Coffee Brown • Jade Green • Soft Coral • Turquoise • Desert Tan • Charcoal Gray • Mayfair Green • Jonquil Yellow

UNITED STATES GYPSUM
the greatest name in building
NEW PLASTIC-SURFACED SIDING FROM U.S.G.

10 DISTINCTIVE COLORS!
BAKED ON PLASTIC FINISH
LASTS FOR YEARS... EASY UPKEEP
PUTS EVERY BUYER ON "EASY STREET"

New Regency plastic-surfaced siding brings big news to builders with . . . color! Regency is available in 10 distinctively different shades. With its wide range of color, Regency can make exteriors of homes having the same basic floor plan look dramatically different. With its subtle shake texture, it blends beautifully with any other exterior material you choose.

There’s big news for homeowners, too, because Regency’s plastic surface needs less care, and lasts for years and years. This carefree feature means you can sell more Regency-sidied homes by offering modern “Easy Street” living . . . through less upkeep. Made of an asbestos cement base, Regency is fireproof, wind and weather resistant.

U.S.G. has prepared a builder merchandising program to help you sell “Easy Street” living, and to realize the full potential and profit of Regency. Read about it below . . . then mail the coupon today.

United States Gypsum, Dept. AB-11
300 W. Adams St., Chicago 6, Ill.
Please have the U.S.G. salesman call with my personal copy of the “STYLE WITH SIDING” Sketchbook and full information on Regency Siding and the new “Easy Street” merchandising program for builders.

Name
Company
Address
City Zone State
Build comfort into your slab floors with positive permanent insulation against cold and ground moisture. SCHORBORD and POLYFILM are quick and easy to lay... give you "plus" benefits to sell.

Homes and buildings are easier to sell... and "most wanted"... when you build in permanently warm, dry slab floors. Schorbord and Polyfilm stop heat loss and moisture entry through foundations and floors, regardless of temperature conditions outside. These Dow Building Products are easy and economical to install. The result: more comfortable buildings, lower heating costs, more satisfied buyers.

SCHORBORD (Patent applied for) perimeter insulation. To install, simply snap off the prescored width you want and lay it without adhesive against the foundation and on the fill. It is excellent for both heated and unheated slabs and for crawl spaces.

POLYFILM polyethylene film. Forms a permanent ground-moisture barrier. Lay Polyfilm on the fill and place concrete directly over it. In crawl spaces, use it to cover all exposed ground. And for flashing around door openings and window framing, staple strips of Polyfilm around the openings before installing frames.
keep slab floors warm and dry

OTHER DOW BUILDING PRODUCTS

STYROFOAM® insulation board for insulating cavity walls and as an insulating base for plaster and wallboard with masonry walls. Low “K” factor and high moisture resistance.

SARALOY® 400 flexible sheet flashing. Installs easily without complicated pre-fabrication. For information on these and other Dow Building Products, write THE DOW CHEMICAL COMPANY, Midland, Mich., Plastics Sales Dept. 1512D4.

THE DOW CHEMICAL COMPANY

Midland, Michigan

APRIL 1961
How to make a lasting offer exteriors that stay

This ad, in current issues of Better Homes & Gardens, American Home, Sunset and Living, emphasizes the joy of owning a home sided with durable, beautiful Masonite exterior products.

MASONITE

Masonite, Sunline and Panelgrove are registered trade-marks of Masonite Corporation.
impression out of a first glance
beautiful for a generation and longer!

First glances turn “lookers” into interested prospects when the exteriors of your homes are genuine Masonite hardboard sidings.

The Sunline siding that forms the continuous patio and interior wall, for example, won’t split or check...is exceptionally dent-resistant. Raised vertical ribs, an integral part of the siding itself, are rounded and smooth...offer unique sun-and-shadow effects.

Sunline saves labor cost, too. Handy 4’ x 8’ to 4’ x 16’ panels install quickly. Edges are shiplapped for fast application—uninterrupted design. Best of all, the beauty lasts and lasts—no annoying call-backs!

Investigate the wide range of vertical and horizontal Masonite sidings. Look into all Masonite exterior panels.

Hammer test leaves no doubts—Masonite sidings can take it! Can you imagine how most sidings would look after repeated blows with a hammer? Masonite hardboard comes through the pounding undaunted.

Always build with paneling that features this trade-mark. It says this is genuine Masonite hardboard. It’s wood-made-better!—made with the “exclusive explosion process” for unequaled strength, smoothness and weatherability.

shows the way!

Masonite exteriors come through the hammer test undaunted.

Masonite Panelgroove—offers vertical grooves every 4’, 8’ or at random.

Masonite “X” siding—provides a deep 3/4” shadowline—factory-primed.

Look in the Yellow Pages for your nearest Masonite dealer. And for a colorful booklet on Masonite exteriors, send the coupon.

MASONITE CORPORATION
Box 777
Chicago 90, Illinois

Please send me your booklet on Masonite exteriors and information on new “X” siding.

Name ........................................
Company ...................................
Address ......................................
City ........................................ State ........................................
Zone ................................... County .....................................
UNI-CREST insulation

Now, through the combination of modern chemistry and the experience of United’s 50 years as a leading manufacturer of insulating material, comes Uni-Crest. A thoroughly proven foam plastic insulation of outstanding thermal properties — labor saving and cost cutting benefits. Highly recommended for walls, ceilings, floors and around foundations or under slabs. Readily adheres to masonry, eliminates furring or lathing, provides an excellent surface for plaster, cement or other finishes. Easy to work with, light, non-dusting, odorless, non-toxic, can be cut with all standard tools. Will not shrink or rot and retains its insulating value indefinitely. Regular and self-extinguishing available in a variety of sizes.

Write for installation instructions and sample

UNI-CREST insulation

United Cork Companies
25 Central Avenue, Kearny, New Jersey

BRAND NAMES DIRECTORY

(Continued from page 102)


Turn to Section 3
Shakolor is an exclusive Shakertown finish scientifically formulated to double color life... minimize re-staining... increase weather resistance of Shakertown® cedar shake panels!

Thoroughly field tested under all climatic conditions... Shakolor® is factory applied in 12 striking colors to all GLUMAC panels...

...and Glumacs have a lower applied cost than any other siding material!

...now available at building materials dealers everywhere!

Please send me complete information about Glumac Panels and name of nearest dealer.

NAME__________________________
COMPANY______________________
STREET________________________
CITY___________________________ ZONE____ STATE_____
Q. What's the newest name in gypsum products?
A. The oldest name in building materials!

Next time you buy gypsum products, you'll see a new name – Johns-Manville Gypsum Products. We believe it'll pay you to give them a try. For we've been serving American builders with top-quality building materials for over a century. Get all the facts from your J-M representative this week. Or write Johns-Manville, Dept. AB461, Box 14, New York 16, N. Y.
Quality does cost more... but quality sells houses!

As a builder, you know better than anyone in the building industry that visible quality sells houses faster. Naturally, quality costs more... but the sales appeal of quality is unmistakably a good investment for you.

For example, a Follansbee Terne roof may be more expensive than the roofing you are now using. But look at the sales appeal of a Terne roof!

- A Terne roof will last longer than a lifetime
- A Terne roof is colorful—and the owner can change its color any time he wishes
- A Terne roof is distinctive—Terne can be applied in many different designs... in batten, standing or bermuda seams (like the roof pictured below.)

In other words, Follansbee Terne is quality in roofing. A Terne roof is sales appeal—on the outside of the house, where prospects see it and are drawn to it.

We would be happy to send you additional information about Follansbee Terne.

Architects: Martin & Jelliffe, AIA, Indianapolis, Indiana
Builder: A. Frank Woods, Lafayette, Indiana
Roof: Rush Metal Products, Inc., Lafayette, Indiana

FOLLANSBEE STEEL CORPORATION
Follansbee, West Virginia
Whatever the job... residential, commercial, industrial or farm... be sure to specify Noyo brand Redwood by Union. Noyo gives you the quality, the service and the widest choice. Right now, for instance,

there are 32 different Noyo products available. And as Union's modern research labs develop new forest products, the Noyo family will grow even bigger.

UNION LUMBER COMPANY

Mills: Fort Bragg, Leggett and Willits, California
Sales Offices: San Francisco - Los Angeles - Chicago - New York

Member: California Redwood Association
REPORT ON ASTM ACCELERATED AGING TEST #D-1037-56T:

NO CRACKING • SPLITTING •

Aluminum fastener eliminates face nailing!

NOW YOU SEE IT! Hidden fastener in place before overlapping panel is applied.

NOW YOU DON'T! Fastener cannot be seen after overlapping panel is applied.
CHECKING OR SPLINTERING
of Upson Primed Siding in a
LIFETIME of outdoor exposure!

Here's the most durable, neatest looking and completely practical lap siding! And you can't buy a more economical siding, either. Upson Primed Siding is cut to uniform size—12" wide by 12' long. These precision dimensions permit exact layout. Edges are uniformly true and straight, too. Surface guaranteed knot free. No grain to raise or hide. Both surfaces and edges are primed for longer life. One side gray, one white...and this paint will positively not peel! Upson Primed Siding is waterproofed throughout. And the hidden aluminum fasteners (see illustration, left) not only eliminate face nailing and improve appearance, but provide automatic venting that prevents moisture traps behind siding.

Our technical staff will gladly consult with you on your requirements. Phone, wire or write. The Upson Company, Upson Point, Lockport, New York.

*Here's proof! Read what brutal punishment Upson Primed Siding withstood during the ASTM accelerated aging tests estimated to be equivalent to 30 to 50 years of natural weathering. (The following six torturous steps were repeated six times.)

Soaked in water
1. One hour at 120°F.

2. Three hours at 200°F.

3. Twenty hours at 10°F.

4. Three hours at 210°F.

5. (Repeat of No. 2 above.)

6. Eighteen hours at 210°F.

Please send me the FREE illustrated brochure about durable, strong and money-saving Upson PRIME SIDING and related Upson products.

THE UPSON COMPANY
UPSON POINT • LOCKPORT, N.Y.

NAME:

COMPANY:

ADDRESS:

CITY: STATE:
TEXTURED SIDINGS by Weldwood in a broad range of panel styles are especially appropriate for traditional architecture and accessories. Shown is a new red cedar siding called Early American® Cedar. Its deep-textured, brush-abraded surface, accentuating the pronounced grain patterns, can either be painted, stained, or left to weather naturally. The panel surface features 1⅛"-wide square-cut vertical grooves spaced 12" apart.

ULTRA-SMOOTH. The Duraply Lap Siding shown here offers all the general benefits of Duraply Sidings—warp, split, and dent resistance; lowest possible maintenance; paint peeling, checking and blistering eliminated when quality house paint is properly applied; less waste and scrap; fewer nails required; faster, better construction and no knots or other imperfections—plus a deep, deep shadow line for outstanding horizontal applications. Available factory-primed for one coat field painting.
SALES-CREATING

VARIETY WITHOUT

CHANGING FLOOR PLANS

YOU CAN BUILD BETTER HOUSES FOR THE

MONEY WITH WELDWOOD SIDINGS

Attractive sidings add eye appeal, strength and permanence at low installed cost. Weldwood's New Merchandising Program promotes faster sales. Individualized beauty for every home you build is as practical as it is desirable with Weldwood's wide variety of plywood sidings. You can find a suitable siding for every architectural style, or use them in combination to give every home you build a customized “one-of-a-kind” look.

Big plywood sheets go up quickly and easily directly on studs—no sheathing necessary even with Weldwood® Duraply® Lap Sidings, to meet F.H.A. requirements. You save on labor, painting and material costs without sacrificing quality.

Tests by the Department of Agriculture's Forest Products Laboratory show that a wall of ¾" plywood nailed directly to studs is twice as rigid and over four times as strong as a standard 1" x 8" diagonally sheathed wall. In addition, Weldwood Sidings offer superior dent, warp and split resistance. They also give your customers truly low maintenance exteriors.

WELDWOOD SIDINGS

MAIL THIS COUPON for free illustrated new 12-page Weldwood Siding booklet and data on how you can participate in Weldwood's big "Your New Home" promotion.

United States Plywood
55 West 44th Street, New York 36, N.Y.

☐ Please send me your new 12-page Weldwood Sidings booklet.
☐ Please give me details on Weldwood's sale-boosting "Your New Home" Merchandising Program.

NAME........................................................................
FIRM........................................................................
ADDRESS...................................................................
CITY..............................................................ZONE......STATE........
"I saved $70 to $80 a house with BARRETT 'Rigidwall' sheathing!"

...says Mike Pashcow, President, #1 Nassau County Homes, Inc., Plainview, Long Island, N. Y. "We've been building homes for 13 years and were pleased when 'Rigidwall' helped save us $70 to $80 a house over the standard ½" plywood sheathing we'd been using. We're also impressed with its ease of handling, scoring, snapping; its strength, resistance to dampness and warping; and its ability to hold firmly asbestos shingle nailing." RIGIDWALL requires no corner bracing. Shingles apply directly (no furring strips needed) — saving more time. And Barrett's exclusive CHEM-F1 process preserves original strength of wood fibers. See us soon and save!

Offices in: Birmingham, Boston, Charlotte, Chicago, Cleveland, Houston, New York, Philadelphia, St. Paul

BARRETT DIVISION
40 Rector Street, New York 6, N. Y.
QUAKER STATE Metal Building Products

The Hidden Persuaders ... that help you sell to quality-conscious buyers

Build in quality ... build with QSM metal building products. Ask your dealer—he knows! Designed to meet FHA and VA requirements, they are quality products that help you cut costs and make your houses more saleable.


Write For Complete Building Products Booklet

QUAKER STATE METALS COMPANY
A Division of Howe Sound Company
Lancaster, Box 1167-A, Pennsylvania
INSULATED:
The unique difference in windows today

The Window that does More than FILL A HOLE IN THE WALL!

Insulated: The most desired quality feature in homes today! And now a window that gives you insulation benefits... a more comfortable house, a house that's economical to heat and air-condition. It's the popular Titan Metals window and it's being used by more and more builders who want to stay a step ahead of competition.

The unique Titan Metals built-in double insulation feature adds an exciting new value to windows without adding cost. Only a live demonstration of this increasingly popular window can show you all the features that automatically sell it. Why not spend an hour with a TM representative to see how you can profit by installing this window.
## NOMENCLATURE AND DEFINITIONS

The various terms used in this standard are defined below.

- **Bar** — A bar extends the extreme width or length of the glass opening and may be either vertical or horizontal between glass.
- **Coated construction** — The ends of rails, mullions, muntins, or bars so shaped that they will cover and fit the contour of the sticking.
- **Core** — The innermost layer in veneered-door construction.
- **Crossbanding** — The veneer that may be used in the construction of flush doors, which is placed between the core and face veneers with the direction of the grain at right angles to that of the face veneer.
- **Door, flush** — Made up of core, crossbanding, and face veneers, or of core and face veneers only.
- **Door, paneled** — Made up of stiles, rails, and one or more panels; the stiles and rails forming the frame around the panel.
- **Door, sash** — Same as panel door, except that one or more panels are replaced by glass.
- **Dried** — Dried in a closed chamber in which the removal of moisture is controlled by artificial heat and usually by relative humidity.
- **Kiln-dried** — Dried in a closed chamber in which the removal of moisture is controlled by artificial heat and usually by relative humidity.
- **Mullion** — An upright, or vertical, member between panels.
- **Muntin** — Any short bar, either vertical or horizontal, between glass, and not extending the extreme width or length of the glass opening.
- **Panel, plywood** — A panel made up of core and face veneer.
- **Pitch seam** — The innermost layer in veneered-door construction, filled with pitch.
- **Rails** — The cross, or horizontal, pieces of the framework of a door.
- **Rail, lock** — The wide cross, or horizontal, rail of a door at lock height.
- **Rail, top** — The top cross, or horizontal, rail of a door.
- **Rim** — The wide cross, or horizontal, rail of a door or frame.
- **Sticking** — A mold which is worked on the edges of stiles, rails, mullions, muntins, or bars, adjacent to panels or glass.
- **Stiles** — The upright, or vertical, outside pieces of a door.

## Doors & Windows

### Exterior Wood Door Standards

<table>
<thead>
<tr>
<th>Diagram</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="doors.png" alt="Diagram" /></td>
<td><strong>Exterior Wood Door Standards</strong></td>
</tr>
</tbody>
</table>

### Plain, Flush and Flush "V" Grooved

- **1 1/4" x 3'-0" and 3'-4" x 6'-8" and 7'-0"**

If desired, light openings may be cut in these doors to suit wishes of purchaser.

### Exterior or Interior Rim, Horizontal Light

<table>
<thead>
<tr>
<th>Diagram</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="exterior.png" alt="Diagram" /></td>
<td><strong>Exterior or Interior Rim, Horizontal Light</strong></td>
</tr>
</tbody>
</table>

### French or Casement Doors

<table>
<thead>
<tr>
<th>Diagram</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="french.png" alt="Diagram" /></td>
<td><strong>French or Casement Doors</strong></td>
</tr>
</tbody>
</table>

### Combination Doors

<table>
<thead>
<tr>
<th>Diagram</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="combination.png" alt="Diagram" /></td>
<td><strong>Combination Doors</strong></td>
</tr>
</tbody>
</table>

**APRIL 1961**
## Wood Window Standards

### POPULAR SIZES AND DESIGNS

#### CASEMENT SASH 1 1/8"

<table>
<thead>
<tr>
<th>Prefit</th>
<th>Face</th>
<th>Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stiles</td>
<td>Top Rail</td>
<td>Bottom Rail</td>
</tr>
<tr>
<td>1</td>
<td>1 1/8&quot;</td>
<td>5 1/8&quot;</td>
</tr>
<tr>
<td>3</td>
<td>1 1/8&quot;</td>
<td>5 1/8&quot;</td>
</tr>
<tr>
<td>4</td>
<td>1 1/8&quot;</td>
<td>5 1/8&quot;</td>
</tr>
</tbody>
</table>

Sash are made 1/4" narrower and 3/8" shorter than opening sizes given below.

- 1-1/2" x 3 - 2: 12 x 33
- 3 - 10: 41
- 4 - 6: 49

#### STORM SASH and SCREENS 1 1/8"

<table>
<thead>
<tr>
<th>Prefit</th>
<th>Face</th>
<th>Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>St.</td>
<td>T.R.</td>
<td>B.R.</td>
</tr>
<tr>
<td>Storm Sash</td>
<td>1 1/8&quot;</td>
<td>1 1/8&quot;</td>
</tr>
<tr>
<td>Storm Screens</td>
<td>1 1/8&quot;</td>
<td>1 1/8&quot;</td>
</tr>
</tbody>
</table>

Storm Sash and Screens are available for all Standard Windows. The more popular sizes conform to the window sizes shown on the preceding page.

#### CELLAR SASH 1 1/4" and 1 1/2"

<table>
<thead>
<tr>
<th>Prefit</th>
<th>Face</th>
<th>Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>St.</td>
<td>T.R.</td>
<td>B.R.</td>
</tr>
<tr>
<td>Storm Sash</td>
<td>1 1/4&quot;</td>
<td>1 1/4&quot;</td>
</tr>
<tr>
<td>Storm Screens</td>
<td>1 1/4&quot;</td>
<td>1 1/4&quot;</td>
</tr>
</tbody>
</table>

### PLAIN RAIL WINDOWS 1 1/2"

<table>
<thead>
<tr>
<th>Prefit</th>
<th>Face</th>
<th>Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>St.</td>
<td>T.R.</td>
<td>B.R.</td>
</tr>
<tr>
<td>Storm Sash</td>
<td>1 1/2&quot;</td>
<td>1 1/2&quot;</td>
</tr>
<tr>
<td>Storm Screens</td>
<td>1 1/2&quot;</td>
<td>1 1/2&quot;</td>
</tr>
</tbody>
</table>

#### BARN or UTILITY SASH 1 1/2" and 1 3/8"

<table>
<thead>
<tr>
<th>Prefit</th>
<th>Face</th>
<th>Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storm Sash</td>
<td>1 1/2&quot;</td>
<td>1 1/2&quot;</td>
</tr>
<tr>
<td>Storm Screens</td>
<td>1 1/2&quot;</td>
<td>1 1/2&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prefit</th>
<th>Face</th>
<th>Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storm Sash</td>
<td>1 3/8&quot;</td>
<td>1 3/8&quot;</td>
</tr>
<tr>
<td>Storm Screens</td>
<td>1 3/8&quot;</td>
<td>1 3/8&quot;</td>
</tr>
</tbody>
</table>

### Storm Sash or Screens

Storm Sash and Screens are made 3/4" narrower and 1 1/2" longer than window opening sizes.

### Courtesy National Wood Work Manufacturers Association

APRIL 1961
**DOORS & WINDOWS**

**Wood Window Standards**

**CHECK RAIL WINDOWS 1⅝" - POPULAR SIZES AND DESIGNS**

<table>
<thead>
<tr>
<th>Windows are made ¾&quot; narrower and ½&quot; shorter than window opening sizes shown below</th>
<th>2 Lt.</th>
<th>Top 3 Lt. W.</th>
<th>Top 4 Lt. W.</th>
<th>4 Lt. H.</th>
<th>Top 6 Lt.</th>
<th>Top 8 Lt.</th>
<th>12 Lt.</th>
<th>16 Lt.</th>
</tr>
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<tbody>
<tr>
<td>1-8 x 3- 2</td>
<td>16 x 16</td>
<td></td>
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<tr>
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<td>20 x 14</td>
<td>6¾ x 14</td>
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<td>3- 2</td>
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<td>2-4 x 2-10</td>
<td>24 x 14</td>
<td>7¾ x 14</td>
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<td>32 x 14</td>
<td>7¾ x 14</td>
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<tr>
<td>3-4 x 2-6</td>
<td>36 x 24</td>
<td>8¾ x 24</td>
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<tr>
<td>3-8 x 4- 6</td>
<td>40 x 24</td>
<td>9¾ x 24</td>
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</tbody>
</table>

**Stiles** | 1⅝" | 1⅝" | 1⅝" | 1⅝" | 1⅝" | 1⅝" | 1⅝" | 1⅝" |
| Profil Face | | | | | | | | |
| Top Rail | 1⅝" | | | | | | | |
| Bottom Rail | 3" | | | | | | | |
| Vertical Bar | ⅝" | | | | | | | |
| Horizontal Bar | ⅝" | | | | | | | |
| Check Rail | 1 ½" | | | | | | | |
| B.R. | 2 ¼" | | | | | | | |
| V.B. | ⅝" | | | | | | | |
| Muntin | ⅝" | | | | | | | |
| C.R. | ⅝" | | | | | | | |
| C.R. | ⅝" | | | | | | | |

**Other Designs and Sizes of Stock Windows and Sash Available**

No attempt has been made in this catalogue to illustrate or list all of the designs and sizes of Ponderosa Pine Stock Windows and Sash that are available. On this and the following page are shown those that are most popular. For a complete listing of all standard sizes and designs, including one light sash, transoms and porch sash, write The National Woodwork Manufacturers Association.
### Steel Window Standards (Residential)

#### STEEL CASEMENTS

<table>
<thead>
<tr>
<th>Size</th>
<th>Dimensions</th>
<th>Steel Types</th>
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<tbody>
<tr>
<td>2'-2&quot;</td>
<td>1'-7/8&quot;</td>
<td>1212, 2222</td>
</tr>
<tr>
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<td>3'-1&quot;</td>
<td>2212, 3222, 4222, 5222</td>
</tr>
<tr>
<td>3'-2 1/4&quot;</td>
<td>1'-7/8&quot;</td>
<td>1313, 2323</td>
</tr>
<tr>
<td></td>
<td>3'-1&quot;</td>
<td>2313, 3323, 4323, 5323</td>
</tr>
<tr>
<td>4'-2 1/2&quot;</td>
<td>1'-7/8&quot;</td>
<td>1414, 2424</td>
</tr>
<tr>
<td></td>
<td>3'-1&quot;</td>
<td>2414, 3424, 4424, 5424</td>
</tr>
<tr>
<td>5'-3&quot;</td>
<td>1'-7/8&quot;</td>
<td>1514, 2524</td>
</tr>
<tr>
<td></td>
<td>3'-1&quot;</td>
<td>2514, 3524, 4524, 5524</td>
</tr>
</tbody>
</table>

Dimensions shown are over-all out-to-out measurements. Units with single ventilator may swing from right or left jamb. All units are warehouse types and sizes. Fixed types furnished for all above sizes.

#### DOUBLE-HUNG WINDOWS

<table>
<thead>
<tr>
<th>Size</th>
<th>2'-0&quot;</th>
<th>2'-4&quot;</th>
<th>2'-8&quot;</th>
<th>3'-0&quot;</th>
<th>3'-4&quot;</th>
<th>2'-0&quot;</th>
<th>2'-4&quot;</th>
<th>2'-8&quot;</th>
<th>3'-0&quot;</th>
<th>3'-4&quot;</th>
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</thead>
<tbody>
<tr>
<td>3'-1 1/4&quot;</td>
<td>B2031</td>
<td>B2431</td>
<td>B2831</td>
<td>B3031</td>
<td>B3431</td>
<td>E2031</td>
<td>E2431</td>
<td>E2831</td>
<td>E3031</td>
<td>E3431</td>
</tr>
<tr>
<td>3'-9/16&quot;</td>
<td>B2039</td>
<td>B2439</td>
<td>B2839</td>
<td>B3039</td>
<td>B3439</td>
<td>E2039</td>
<td>E2439</td>
<td>E2839</td>
<td>E3039</td>
<td>E3439</td>
</tr>
<tr>
<td>4'-5 1/2&quot;</td>
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<td>B2845</td>
<td>B3045</td>
<td>B3445</td>
<td>B3845</td>
<td>E2045</td>
<td>E2445</td>
<td>E2845</td>
<td>E3045</td>
</tr>
<tr>
<td>5'-1 1/2&quot;</td>
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<td>B2451</td>
<td>B2851</td>
<td>B3051</td>
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<td>B3851</td>
<td>E2051</td>
<td>E2451</td>
<td>E2851</td>
<td>E3051</td>
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"8" TYPES

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</thead>
<tbody>
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<td>B3059</td>
<td>B3459</td>
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"E" TYPES

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<th>Size</th>
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<tr>
<td>E3059</td>
<td>E3459</td>
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#### BASEMENT WINDOWS

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</thead>
<tbody>
<tr>
<td>32 1/2&quot;</td>
<td>2LT</td>
<td>15&quot;x12&quot;</td>
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<tr>
<td>22 1/2&quot;</td>
<td>2LT</td>
<td>15&quot;x16&quot;</td>
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</table>

#### WAREHOUSE UNIT

<table>
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<th>Size</th>
<th>2'-0&quot;</th>
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</thead>
<tbody>
<tr>
<td>32 1/2&quot;</td>
<td>2LT</td>
<td>15&quot;x20&quot;</td>
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</tbody>
</table>

Dimensions shown are over-all out-to-out measurements. Units with single ventilator may swing from right or left jamb. All units are warehouse types and sizes. Fixed types furnished for all above sizes.

### Fixed Panels

<table>
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<tr>
<th>Size</th>
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<th>5'-1 1/2&quot;</th>
<th>5'-9 1/2&quot;</th>
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<tbody>
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<td>F3459</td>
<td>F4059</td>
<td>F4859</td>
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</tr>
</tbody>
</table>

**Courtesy of the Steel Window Institute**
DOORS & WINDOWS

Aluminum Window Standards (Residential)

A.W.M.A. STANDARD

C-A1 CASEMENT WINDOWS
for residential-type buildings.
Units with single ventilator may be hinged either right or left.
Fixed types furnished for all sizes shown.

A-A1 AWNING WINDOWS
for residential-type buildings.

STANDARD SIZES

1'-7¾"  2'-2"  2'-3½"

1212  2212  3212

2'-3½"  4'-0½"

1413  2413  3413  4413

4'-0½"  5'-3"

1514  2514  3514  4514

SECTION THROUGH AWNING WINDOWS

HEAD

WD = Window Dimension
SD = Screen Detail

JAMB

SILL
Solid Brick Construction
Frame Construction
Concrete Block Construction

Courtesy Aluminum Window Manufacturers of America

window dimensions
Designed for a luxury touch yet priced for the modest of homes, Qualitybilt Wood Casement Windows provide the ultimate in window convenience. Slim, narrow mullions; extension hinges for inside cleaning; complete weatherstripping for snug comfort anytime of the year. A variety of high-quality hardware, one light welded or window glass or divided light window glass, and optional bar or diamond inserts give amazing design flexibility. Write for Catalog No. 2073.

The amazing popularity of Qualitybilt 4-Way Windows is understandable. Their tremendous versatility permits using them as Awning, Casement, Hopper, or Fixed units, or in combinations. Units are supplied complete, fully weatherstripped, ready to install. Select roto or lever bar operators, or manual operation, optional glazing (welded insulated or window glass), all-aluminum screens. Bar or diamond inserts available. Write for Catalog No. 2067.

Explore the amazing possibilities of this high quality, low-cost window line. Smooth, effortless operation — nylon rollers on anodized aluminum track — weathertight weatherstripping. Balances, "take-out" gadgets, hinges, operators... are all eliminated. Select from welded glass or window glass with optional removable double glazing panels. Aluminum screens are removable from inside. Brushed chrome "lock-pull." A quality window at an amazingly low price. Write for Catalog No. 2046.
IN THE WORKS AT U.S. STEEL RESEARCH:

A nonwarping steel door
solid...tight...trouble-free

How many times have you been called back to adjust a door in the homes you've built? It's costly, time-consuming and a nuisance. It's one of the problems U. S. Steel is trying to solve for you right now.

Specialists at our Research Center are working on an exterior residential door far superior to any you've ever seen. It's made of steel sheets with formed edges and its interior is filled with special insulating materials. The door is rimmed with a neoprene strip and set in a steel frame. It won't swell or warp, won't jam in the summer, won't let in cold air in the winter. You can be sure you won't be called back on this door! It will decrease your installation costs, too. Because the door will come complete with a frame, it can be hung in half an hour—faster than older installation methods.

U. S. Steel knows you have other home-building problems—and we're hard at work on them. Our research team works closely with the NAHB Research Institute so we'll know just what steel products you need to build better houses for less money.

United States Steel
YOU CAN HAVE Extra Volume Dollars FROM THIS Amazing New ELECTRICALLY-OPERATED STEEL PANEL-LIFT GARAGE DOOR!

LOWEST IN PRICE OF ANY ELECTRICALLY-OPERATED DOOR FOR RESIDENTIAL OR INDUSTRIAL USE!

Works like a venetian blind!...Saves head-room!...No warp, no screech, no rumble nor rattle!

No other garage door can match the exclusive PANEL-LIFT DOOR for trouble-free performance or save so much space, money and installation time.

Look at these exclusive features:

- WORKS LIKE A VENETIAN BLIND. Panels lift vertically, gliding quietly up their separate channels.
- SAVES HEAD-ROOM. Panels stack into a unit only 10-inches deep. No screechy, dirt-catching overhead tracks. No bulky counterweights.
- SIMPLE, RUGGED DESIGN. Complete all-steel door has only 9 components. Includes automatic-locking and safety-devices.
- EASY INSTALLATION. Only 4 bolts needed to secure door to jamb opening.
- WEATHER-TIGHT to prevent heat loss in winter.
- KEY-OPERATED as standard equipment to foil intruders. Additional remote control switches available if desired.
- RUST AND ABRASION RESISTANT. Doors are primed with a coating specially developed by Standard-Toch Chemicals Co. to give maximum surface protection, ready for finish coat with any conventional outside paint.
- LOW COST. Doors normally cost 50% less to buy and 66% less to install and maintain than other electrically-operated doors.
- SIZES. Standard residential sizes in 20-gauge steel; industrial sizes in 16- and 18-gauge. Sizes to 80 feet in length available on special order.

DEALER OPPORTUNITY. Investigate the dealer-profits in these amazing PANEL-LIFT DOORS. Write today for brochure and full details, without obligation, to Dept. A-461

PANEL-LIFT DOOR CORPORATION
SUBSIDIARY OF STANDARD-TOCH INDUSTRIES, INC.
1724 CHESTNUT ST., PHILADELPHIA 3, PA.

(A few restricted wholesale distributorships are still available.)
MACKLANBURG-DUNCAN CO.

Packaged sets for doors. In stainless steel or bronze. Complete packaged units mean easier handling for you and easier installation for customers. M-D Nimetal door sets available with regular door bottoms or with any M-D threshold.

M-D Nimetal WEATHER STRIP

Perfect for wood or metal doors. Made of sturdy, extruded aluminum and tough, durable vinyl. Comes completely packaged with necessary strip, nails, screws and instructions. Available with or without extruded aluminum and vinyl DV-1 Door Bottom.

M-D H-4 FOLD-BACK DOOR WEATHER STRIP

Automatically spaces itself when properly placed against door stop. A smoothly-operating, economical packaged set for all standard doors. Aluminum or bronze—with any door bottom or threshold desired. Nails, screws and instructions furnished in each set.

M-D Jamb-Up DOOR WEATHER STRIP

Extruded Aluminum & Durable Vinyl

For ALL doors. With silvery-satin or Albrax finish—will not rust or tarnish. Furnished in standard lengths: 28", 32", 36", 42", and 48".

M-D On-GARD COIL WEATHER STRIP

All-metal weather strip in handy rolls. 8 widths in either stainless steel or bronze. Features built-in tension, embossed nail zone and hum-proof edigail

M-D McWAY WEATHER STRIP

The "original" coil metal and wool felt weather strip. Fast-selling because it’s so easy to put on. Each individual package contains one 18 ft. roll with nails and instructions. Packed 12 cartons in free display.

M-D CASEMENT WINDOW WEATHER STRIP

Easy to install on steel or aluminum casements. Slips over window flange. Style No. 1 is used on head and lock side or swinging edge of metal casement window. Style No. 2 is used on hinge side and the sill.
For more SELL-able features...

For Doors and Windows

**M-D GARAGE DOOR WEATHER STRIP**

SEALS ALL 4 SIDES OF GARAGE DOOR!

Sturdy extruded aluminum and durable vinyl that lasts a lifetime. Exclusive design of vinyl weather strip seals out rain, snow, drafts, dirt. Made especially for overhead doors (both sectional and solid types) but may be used on almost every type of garage door. Packaged sets in poly tubing include screws and instructions.

---

**M-D EXTRUDED THRESHOLDS**

**AP-3 3/4** — America’s most popular threshold with replaceable vinyl insert. Note vinyl caulking strips under each leg, which may be removed if the use of Nu-Calk Caulking Compound is preferred. Available in Alacrome or Anodized Albras.

**AP-118** — (above) Designed especially for thick pile rugs. Has vinyl caulking under legs, as well as replaceable vinyl insert. Available in Alacrome or Anodized Albras.

**AP-158** — (above) Designed for thick pile rugs. Has vinyl caulking under legs, as well as replaceable vinyl insert. Available in Alacrome or Anodized Albras.

**M-D DRIP CAPS**

Prevents rain from draining or blowing under door or wood casing windows.

_A_ Available in DCA Aluminum or DCA Albras. Holes punched, nails furnished—comes in any length.


---

**M-D DOOR BOTTOMS**

_A_ M-D Numetal Door Bottom made of extra thick wool felt and heavy gauge stainless steel, brass or aluminum. Standard lengths—28”, 30”, 32”, 36”, 42” and 48”.

_B_ M-D heavy duty extruded aluminum and felt door bottom in Alacrome or Anodized satin, bright or brass colors, in all standard lengths.

_C_ M-D extruded aluminum and vinyl door bottom—in natural Alacrome or Anodized Albras finish—in all standard lengths.

---

**MACKLANBURG-DUNCAN CO.**

Manufacturers of Quality Building Products • Box 1197 • Oklahoma City 1, Okla.
Those who know Quality always want

**NuCALK CALKING COMPOUND**

in Bulk—Knife or Gun Grade


**HAND SQUEEZE TUBES**

for small jobs

No gun needed. Simply remove cap from built-in nozzle, fasten key over crimped end, turn key and start calking. Here's a fast-moving item for over-the-counter sales. Packed 12 tubes in a handsome "Silent Salesman" display carton that can be quickly set up on your counter.

**Nu-Glaze GLAZING COMPOUND**

Always stays "PUT"

Here's the perfect material for glazing wood or metal sash, replacing putty, setting plumbing, filling cracks, boatwork of all kinds. Clean to handle, easy to use. Will not dry out, harden, crack or peel. Available in ½ pt., pt., qt. cans; 25, 50, 100, 880 lb. drums.

**Nu-Phalt PLASTIC ASPHALT CEMENT**

for all jobs!

Ideal for sticking down asphalt shingles and floor tiles ... for use on roofs, chimneys, flashings. Packed 12 loads to a carton ... with or without plastic nozzle. Shipped without nozzle unless specified. Also available in 2½ and 10 lb. cans; 50 lb. pails; 550 lb. drums.

Advertised Nationally in 17 Leading Consumer Magazines

BUILDERS Sold by all Hardware, Lumber and Building Supply Dealers.

DEALERS ORDER TODAY your order will receive prompt shipment.
AMERICA'S FAVORITE!

SPEED LOAD

WHEN ONLY THE BEST is good enough—builders and home owners choose M-D Speed Loads every time! With "controlled flow" action, M-D Speed Loads eliminate dripping or oozing of compound from nozzle. Get cleaner, neater jobs. It pays to tell customers about this feature. Point out the BUILT-IN Polyethylene pleated plunger (with accordion action) that STOPS flow of calking compound when desired!

* Available in white or off-white color.
* Available with or without plastic nozzle.

M-D Speed Loads are packed 12 loads to each carton. Please order in multiples of 12. Off-White loads without nozzle always shipped unless otherwise specified.

Meets Federal Specifications TT-C-598 (Grade 1)

NEW EXCLUSIVE FEATURES!

* NEW PLASTIC NOZZLE

New plastic nozzle provides on-the-job choice of 4 different size nozzle openings: 1/8", 3/16", 1/4" and 3/8". No longer do you have to change gun nozzle to get a small or large bead of calking.

* BUILT-IN CUT-OFF ON GUN HANDLE

As shown, the CG-4 gun now has a built-in cut-off knife blade on the trigger of the gun. Tip of plastic nozzle is cut off by squeezing trigger.

MACKLANBURG-DUNCAN CO. MANUFACTURERS OF QUALITY BUILDING PRODUCTS BOX 1197 OKLAHOMA CITY 1, OKLAHOMA
"This Andersen Label

This label is factory applied as of March 1, 1961
1960 was a bad year for builders generally. But not for Howard Reeves! He credits Andersen Windows with a good part of his success. "Many of our prospects know Andersen is a top quality window, but they are almost always surprised to find Andersen with welded insulating glass in homes in our 11 to 13 thousand-dollar price range."

"The Andersen label is a good starting place for our salesmen to point out all the quality brands and features we put into our low price homes."

Why not put America’s best and best-known window to work for you? Take advantage of the fact that in the minds of many buyers, the Andersen name is a sure sign of high quality throughout the house. Remember—this fact is being stressed all year long in big, full-color advertisements in Life and Better Homes and Gardens.

Check your lumber and millwork dealer for all the Andersen facts. And send for the new 1961 Home Promotion Kit. It’s free—and this kit also includes the new Andersen labels.

*Trademark of Andersen Corporation

**IS A BIG HELP IN SELLING OUR $13,000 HOMES**

Starts were down 20 to 30% in 1960—but Louisville Builder Howard Reeves sold at his usual rate of 60 homes.
KINNEAR DOOR Quality has a place in every building picture

Only four Kinnear space-saving doorway products are shown below. All reflect the extra quality for which Kinnear has been recognized through more than half a century. They meet many needs, in buildings of every classification. And Kinnear equipment is never "orphaned". All are REGISTERED—parts are always replaceable from engineering details kept in Kinnear's fireproof vaults! It pays to insist on Kinnear!

Send for New Data — Be sure you have all data on the complete Kinnear line—upward-acting sectional doors (steel or wood) ... protective "see-through" rolling grilles ... interlocking-slat counter shutters and service doors (aluminum, steel or other metals) ... Kinnear Power Operators—also U-L labeled fire doors, Bi-fold (two-section jack-knife) doors! Lots of useful "specs". Send for FREE copy today.

The KINNEAR Manufacturing Company. Factories: 1560-80 Fields Ave., Columbus 6, Ohio; 1742 Yosemite Ave., San Francisco 24, Calif. Offices and Agents in all Principal Cities

(Continued from page 132)
all new Malta casement windows
- WITH SNAP-IN GRIDS -
give you custom quality at economy prices

Stocking or installing, the new Malta Casement window offers outstanding advantages to both dealer and builder. The basic design features one light sash in a variety of heights and widths—with snap-in grids for diamond, colonial or custom light divisions.

This new Malta unit carries an economy price tag—but it is constructed with custom quality appointments. Superb gold-tone hardware and window trim...smooth action roto-operators...inside screens...the ultimate in weatherproof protection against drafts, dust and moisture...and extended hinges that permit cleaning from the inside...are a few “buy-appeal” features.

Malta precision milling and finishing...a stronger, more rigid frame...a new sill design that assures proper drainage bring fast, easy installation.

Frames are shipped KD to jobber...fitted for double glazing standard or insulated glass...hardware attached...manufactured to conform with Commercial Standards CS205-59.

See the all new Malta Casement window at your nearest Malta dealer today or write directly to the factory for full details.
TWINDOW in every window makes every room comfortable. What looks like small panes in upper windows are actually snap-on moldings over a large pane of glass.

HIGH-FIDELITY® Mirrors of twin-ground Pittsburgh Plate Glass on sliding clothes closet doors have real sales appeal to the women.

Metal edge TWINDOW in PITTCO® Sliding Glass Doors and large glass areas gives maximum insulation.
one of my best selling features,"

says Wendell P. Wright, builder, Indianapolis, Indiana

This beautiful home is one of the 12 to 15 that Wendell P. Wright builds annually in the Indianapolis area. He constructs better homes, on a speculative basis, in the price range of $38,000 and up and is highly regarded for the quality of his homes. All the houses have TWINDOW Insulated Glass in the windows and sliding glass doors!

Mr. Wright says, “TWINDOW Insulating Glass adds the comfort and convenience that are demanded in today’s homes. I build only better quality homes and I use TWINDOW because it is one of my best selling features. TWINDOW Insulating Glass adds the quality touch to the windows of the homes I build.”

TWINDOW is two panes of Pittsburgh Glass with an insulating layer of dry air sealed between. It keeps a home warmer in winter, cooler in summer. Cold drafts near windows are reduced. TWINDOW minimizes window steaming and frosting . . . provides window insulation in its most convenient form.

Give your homes the extra sales appeal of TWINDOW in every window and sliding door. It comes in glass edge or metal edge in all popular sizes. Our free TWINDOW booklet will give you the details. Write: Pittsburgh Plate Glass Company, Room 1132, 632 Fort Duquesne Blvd., Pittsburgh 22, Pennsylvania.

TWINDOW—METAL EDGE (left) for large windows. Made with two panes of ¼” Plate Glass, with a ½” sealed air space between. TWINDOW—GLASS EDGE (right) for smaller windows. Made from two panes of ½” PENNVERNON® Window Glass with a 3/16” air space between.
Filuma® Fiberglass-Aluminum Extension Spring Doors

Performance-proved translucent overhead type door for commercial and industrial use

- Clean lines for modern building design
- Lets light in like a skylight
- Saves window installations

Filuma is winning increased preference by operators and builders of many kinds of business and types of construction for these reasons: Translucence—light floods in to vastly improve working conditions. Light weight—only one-third that of wood doors . . . a much smaller power unit can operate the largest sizes. Modern materials—reinforced fiberglass panels, in a sculptured design, are encased in tempered extruded aluminum with reinforcing rails for all sizes. Durable and maintenance free—will not split, impervious to corrosion. Shatterproof, shrinkproof, weatherproof. Never needs painting. Hoses clean. Custom made to fit door openings up to 14' high or 16' wide. Fire colors—white, yellow, green, tan, coral. Trained installation not required. Filuma is nationally distributed through lumber yards and building supply dealers.

SWEETS 161/FRA

FRANTZ MANUFACTURING COMPANY
STERLING, ILLINOIS

Manufacturers of Over 100 Sizes and Styles of Sectional and One-Piece Overhead Type Doors for Residential, Commercial, and Industrial Application. Extension and Torsion Spring.
Sometimes “seeing spots” is a healthy condition; it’s especially healthy for your business when they see Rimco’s Sales Spots. Ask your Lumber Dealer about this new idea to merchandise Rimco Wood Window Units in your model homes. These colorful 5” pressure-sensitive “spots” will tell your prospects about Rimco benefits like: preservative-treated Ponderosa Pine construction; premium stainless steel and anodized aluminum weatherstripping; wood bead glazing; decorator hardware; “Gold-Tone” screen frames; A.W.W.I. “seal of approval” and many more, dependent upon the type of Rimco Wood Window Units you install. Choose from a complete line of casement, double-hung, horizontal sliding, awning type, and single-jamb fixed sash over awning. Plan right now to cash in on this new idea to help sell your homes. See your Lumber Dealer or write directly to:

DESIGNED AND ENGINEERED BY ROCK ISLAND MILLWORK COMPANY • HELPING BUILD AMERICA FOR OVER 90 YEARS

APRIL 1961
Spend just five minutes at your building materials dealers examining his Columbia-matic display model, and the total marketability of the folding door will be crystal clear. Installs in seconds, narrow, neat, with exclusive pantograph mechanism, it is built to stand up to abuse. No complaints, no call-backs. Washable, fire retardant, highly styled, it comes in widths to 4 ft.—heights to 8 ft. Can be hung in pairs.

*Patent Pending

For complete details see your distributor, or write Dept. 114

THE COLUMBIA MILLS, INC.

368 S. Warren Street, Syracuse 1, New York
Wherever a single floor area must serve two or more activity groups, there's a place for heavy-duty PELLA WOOD FOLDING PARTITIONS. Besides solving fast-changing space division problems, these handsome partitions also lend rich interior beauty to schools, churches, offices, clubs and restaurants. Massive panel dimensions of 10½" x 1¼" emphasize the natural grains of 6 genuine wood veneers. Laminated stable core construction permanently prevents warping. Patented "live-action" hinging maintains panel alignment. For any opening width and heights up to 20'-1". Call the PELLA distributor listed in the classified section of your telephone directory or mail coupon.

ROLSCREEN COMPANY, Dept. MB-8, Pella, Iowa
Please send details on PELLA WOOD FOLDING PARTITIONS

NAME
FIRM NAME
ADDRESS
CITY & STATE

APRIL 1961
MONE LIGHT Thomas Industries Inc
MONE Moen Faucet Div., Standard Screw Co
MOHAWK Behr-Manning Co
MOHICAN Mansfield Sanitary
MOISTOP American Smilekraft
MOLCOR Reels Mfg Co
MOLLY Wood Shovel & Tool Co
MONARCH Dietz R E Co
MONARCH Martin-Senour Co
MONCRIEF Henry Furnace Co
MONO-FIBRICK Kaiser Aluminum & Chemical Corp
MONO-FLASH Carrolls
MONO-JECT Smith & Loveless Div
MONOGRAM Monogram Industries Inc
MONOMASTER Boice Crane
MONOPANL Butler Mfg Co
MONTEREY Stainless Metal Mfg
MONTEREY Rudiger-Lang Co
MOORE GAS HEATER Locke Store Co
MOORE-O-MATIC Moore A E
MOPACO VAR Mobile Paint Mfg
MORRIS MORRISON Steel
MOR-TILE Morton Ceramic Tile Co
MORTASEAL US Gypsum Co
MORTITE Mortell J W
MOTO-BUG Kochling Co
MOTO-MIXER Chain Belt Co
MOTO-TRIMMER Bonworth Mfg Co
MOTOR DOR Broan Mfg Co
MOTRAC Modera Communications
MULTIGLASS Thomas
MOUNT AIRY GRANITE North Carolina Granite Corp
MOUNT VERNON Gerber Plumbing, Fixtures
MT VERNON Mt Vernon Furnace & Mfg Co
MOYNO Robbins & Myers Inc
MOZEL Quartz Mosaic Inc
MP CIRCUIT BREAKERS Murray Mfg Corp
MUD-JACK Koehring Co
MULLER CLIMATROL Mueller Climatrol Div
MULTI-D SIZE Leigh Building Products
MULTI-HIDE Lehorn Co
MULTI-MATIC Treasco Mfg
MULTI-CALKS Rawplug Co
MULTI-CELL F. D. Paks
MULTI-FOIL Insulation Co Inc
MULTI-COIL Rund Mfg Co
MULTI-DIAMETER US Expansion Bolt Co
MULTI-FIN Rund Mfg Co
MULTI-PAK Slant-Fin Radiant Corp
MULTI-PITCH H-C Products
MULTI-SHINGLES Allied Chemical Corp
MULTI-TEMP Hydrotherm
MULTI-USE DRIVERS US Expansion Bolt Co
MULTI-WOOD-BLOCK Fair D L Lumber Co
MULTIMATIC Seidlitz Paint & Varnish Co
MULTITINT Seidlitz Paint & Varnish Co
MURALS Birge Co Inc
MURRAY Gladding McBean
MUSI-KOM Home Music Systems Inc
MUSI-TALK Fanon Electric Industries Inc
MW-ONE Carey Mfg Co
MW-50 Carey Mfg Co
NAILDRIVER Morgan Machine
NAILMASTER Stanley Tools
NAILON-BRICK Ludowici-Celadon Co

(Continued from page 164)

RAYNOR MFG. CO.
Dixon, Illinois Hammonton, New Jersey

Builders of a Complete Line of Sectional Overhead Type Doors

INDOOR LIVING AT ITS BEST

EASY ACCESSIBILITY

FINGERTIP OPERATION

ENHANCES ANY ARCHITECTURE

RAYNOR Garage-Aire SCREEN DOORS
Mean SALES for the Homes You Build!

The garage becomes a SUMMER FAMILY ROOM . . . a cool, insect free covered breezeway for summer living that means usable — livable floor space at a low, low cost.

- Rugged, rolled aluminum frame, weatherproof fiberglass screening
- Available in both one and two car sizes
- Easily installed without costly alterations
- Attractively designed, will not mar the beauty of your homes
- Will not interfere with the operation of the garage door

EASY ACCESSIBILITY

FINGERTIP OPERATION

ENHANCES ANY ARCHITECTURE
PELLA PRODUCTS

THE FOCAL POINT OF QUALITY

wood casement windows
give homes “talk-about” quality

Home buyers instantly recognize the unique convenience of ROLSCREEN®—the inside screen that rolls down in the spring and up in the fall. The “here’s-how-it-works” attraction of ROLSCREEN will continually remind the occupants of your good judgment in installing PELLA WOOD CASEMENT WINDOWS. Inside storm panels are also self-storing. Removable muntin bars available in regular, diamond and horizontal styles. The lasting beauty of genuine Western Pine is fortified by a 16-gauge steel frame surrounding the entire window. For sizes and prices, call the PELLA distributor listed in your classified telephone directory or mail coupon.

ROLLSCREEN®
the inside screen that rolls down, up and out of sight.

ROLScreen COMPANY, Dept. MB-27, Pella, Iowa
Please send illustrated details on PELLA WOOD CASEMENT WINDOWS with the exclusive Rolscreen feature.

NAME
FIRM NAME
ADDRESS
CITY & ZONE
STATE

THIS COUPON ANSWERED WITHIN 24 HOURS

APRIL 1961
8:00 a.m. You are about to view a new, cost-saving, one man "E-D" frame installation for wood doors using Amweld Steel E-Z Frames. E-Z Frames are installed OVER ½" drywall! First, the wood stud is checked for plumb.

8:01 a.m. Hinge jamb is placed in starting position and rotated to vertical. Lightweight, sturdy 22 gauge, rust-resistant steel sections are easy for one man to handle.

8:02 a.m. Place header in starting position and rotate to horizontal position. Note trim headline-mitered corner. Provides neat, professionally-finished appearance without on-the-job fitting.

8:03 a.m. Now strike jamb is placed into starting position and rotated to vertical position. Beveled profile of E-Z Frame harmonizes well with contemporary decor.

8:04 a.m. Spacer is positioned for parallel alignment of jambs. Overlapping design simplifies installation over drywall. All steel frame eliminates splitting and warping. No call backs.

8:05 a.m. Base anchors at bottom of jambs are nailed and the strike plate and rubber bumpers installed. No nail holes to fill... anchors covered by base molding.

WATCH HIM BEAT THE "COST CLOCK" WITH E-Z FRAME, NEW STEEL FRAME FOR WOOD DOORS AND DRYWALL. 6 E-Z MINUTES TO INSTALL. NO MITERING, DRILLING OR FITTING. SAVE $2.00 OR MORE PER OPENING. ANOTHER PROFIT-BUILDER BY AMWELD® BUILDING PRODUCTS division of The American Welding & Manufacturing Co., Niles, Ohio
When you’re selling prospects up the quality ladder, the weathertight features of RoWay Doors help you make it to the top. Exclusive Taper-Tite Track and Seal-A-Matic Hinges effectively seal out snow, rain and dust. All units are fitted with galvanized, rust-resisting hardware for complete weather protection. Buyers also respond instantly to the quick, effortless lifting action made possible by “Power-Sealed” springs. Every door is counterbalanced with a custom-wound spring—an advantage gained through RoWay’s single-plant fabrication of all components. All RoWay Doors can be fitted with motor operators. To help you beat deadlines, hardware and door sections are shipped from the factory at the same time. For your next sale, let RoWay features help you open the door to bigger sales in the quality home market.
ANOTHER QUALITY PRECISION PRODUCT

ADJUSTA-JAMB
POCKET DOOR FRAME

LEGEND
1. Track
2. Adjustable Jamb
4½" to 5½"
3. Angle Iron Stiffener
5/8" x 1½"
16 Gauge Galv.
4. Nylon Guide

QUALITY FEATURES
for lifetime service
A. Track cannot drop: fits on top of split header.
B. Trims out same height as swinging door; you do not have to cut door off.
   (82½" ROUGH OPENING)
C. Uses concave wheel with oilless bearing. Rolls trouble free on raised track rather than in groove. Eliminates picking up dust and smears.
D. Has adjustable split jamb which allows frame to be used with either dry wall or plaster, or a combination of both.
E. Has 16 gauge Galvanized Angle Iron Stiffeners on split jambs. Strongest on the market.

MADE FOR ALL POPULAR DOOR SIZES, all same price
also, double pocket units

PRECISION parts corporation
400-AB North First Street Nashville 7, Tennessee

NEW 30 INCHES WIDE

LARGER CEILING OPENING to enable home owners to take full advantage of attic space. Now storage of storm doors, windows, yard furniture and other large objects is possible when you install the quality Super 30" x 54" stairway.

YOUR HOMES WILL SELL quicker with this new larger access stairway—buyers can see the advantage!

STAIRWAY FOR EVERY PRICED HOME
STAIRWAY PRICED HOME
Push Button Electric ............... $40,000 UP
Super Deluxe (30 x 54) ......... $25,000 to $40,000
Super Simplex (30 x 54) ... $12,500 to $25,000
Simplex .......... Homes to $12,500

ALSO AVAILABLE are 14 other sizes and models WRITE for complete details

PRECISION parts corporation
400-AB North First Street. Nashville 7, Tennessee

AMERICAN BUILDER
Bathroom Standards

**Minimum spacing for water closet**
- 6" minimum, 8" better
- 1/2" minimum

**Water closet and lavatory side by side**
- 24"

**Water closet and bathtub side by side**
- Minimum spacing: 24"

**Wall and bathtub**
- Minimum spacing: 19" better

**Clearance for lavatory with towel bars**
- 7" above center of lavatory

**Recommended spacing for Counter Twin Lavatory installations**
- 2'6"

**Average lavatory counter height**
- 31"
- For adult use in master bath: 34-36"

**Twin Lavatory Cabinet**
- Average: 2'7"

**Light**
- 6'

**Mirror Doors**
- Average: 6'

**Shelf-Back Lavatory**
- Average: 2'7"
**PLUMBING, WATER SUPPLY**

**Planning for Plumbing Fixtures**

**ONE-FLOOR PLANS:** In the one-story basementless house, backing up kitchen and bathroom fixtures (plan, left), will produce the optimum in savings. When this is not practical, back up the rooms (plan, right.) When fixtures are badly separated in the plan, material and labor costs go up, not only for drainage and venting, but for water piping.

**TWO BATHROOMS ALIGNED OVER A KITCHEN AND A POWDER ROOM**

**KITCHEN AND BATH BACK TO BACK**

**KITCHEN, BATH AND UTILITY ROOM ADJACENT**

**COMPAKT FIXTURE LAYOUT WITH REQUIRED DRAINAGE PIPING**

**BATHROOM PLANNING:** The fixtures in a single room, where practical, should be placed against and discharge toward, the same wall.

**WATER-HEATER AND CHIMNEY WELL LOCATED FOR ECONOMICAL HOT-WATER PIPING**

**EQUIPMENT LOCATION:** When water-heater is located too far from fixtures using hot-water, there is not only extra cost for material and labor to install the piping, but heat loss through the extra run of pipe makes the heater less efficient. Note in the plan above that fireplace was located so that water-heater could be properly vented and still be close to those fixtures needing hot-water.

**LOCATING CLOTHES WASHERS:** Where possible, clothes washers should be placed to take advantage of an already existing vent, and should minimize the installation of extra water piping. The sketch above indicates one way this could be done.

**SOME FURTHER NOTES**

- Wherever possible, it is best to locate rooms containing fixtures near the point of entrance of the water and sewer services. This will cut the length of service lines.
- Many plans today include compartmented baths; toilet and sink separate from tub and shower, or toilet separate from sink and tub and shower. Piping should be planned so that fixtures drain and are vented with a single stack.
- The suggestions on this page are not meant to be absolute. Local conditions and codes sometimes prevent installations as shown here. However, when they can be used, savings mount—especially in multi-home projects.
PLUMBING, WATER SUPPLY
Septic Tank Systems

**Min. trench width 12”**

**Slope .25% =**

**4” Drain Tile**

Dashed Lines Indicate Extent of Coarse Aggregate

Place Distribution Box on Concrete Slab or Undisturbed Earth

Section A-A

**ABSORPTION-FIELD SYSTEM FOR LEVEL GROUND**

<table>
<thead>
<tr>
<th>Trench width, inches</th>
<th>Minimum distance between centerline of trenches, feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 to 18</td>
<td>6</td>
</tr>
<tr>
<td>18 to 24</td>
<td>6.5</td>
</tr>
<tr>
<td>24 to 30</td>
<td>7.0</td>
</tr>
<tr>
<td>30 to 36</td>
<td>7.5</td>
</tr>
</tbody>
</table>

**Overfill to allow for settlement = 4” to 6”**

**ABSORPTION-FIELD SYSTEM FOR SLOPING GROUND**

**ABSORPTION-TRENCH AND LATERAL**

<table>
<thead>
<tr>
<th>Inlet</th>
<th>Outlet</th>
</tr>
</thead>
<tbody>
<tr>
<td>½” Bars 8” C.C.</td>
<td>4”</td>
</tr>
<tr>
<td>Both Ways</td>
<td>Penetration of Outlet Baffle 6” to 8”</td>
</tr>
</tbody>
</table>

**NOTE:** Make Inlet at least 3” Above Outlet, 3” Preferred

**TYPES OF INLET AND OUTLET DEVICES**

**NOTE:** “A” should be no less than 6” and no greater than 8”

**8” penetration of outlet device generally 40% of liquid depth for rectangular tanks and 35% for horizontal cylindrical tanks.**

**HOUSEHOLD SEPTIC TANK**

<table>
<thead>
<tr>
<th>Number of bedrooms</th>
<th>Recommended minimum tank capacity</th>
<th>Equivalent capacity per bedroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 or less</td>
<td>750</td>
<td>375</td>
</tr>
<tr>
<td>3</td>
<td>900</td>
<td>300</td>
</tr>
<tr>
<td>4</td>
<td>1,000</td>
<td>250</td>
</tr>
</tbody>
</table>
When poles and palms don't mix...

No poles or overhead wires will mar the beauty of Arvida's Royal Palm Yacht & Country Club residential community! With 742 homesites, this distinguished Boca Raton, Florida community is putting all utilities underground. For the job Arvida selected Orangeburg Fibre Conduit—the best known, best-selling Brand in America. And for good reasons: Orangeburg Conduit is lightweight, easy to install. Its self-sealing joints and impermeable walls keep water out for good. Its 100% smooth fibre raceway adds years to cable life. Get all the facts on Orangeburg Fibre Conduit. Write Dept. AB-41 for Catalog 52.

Orangeburg Fibre Conduit is distributed by Graybar Electric Co. and General Electric Supply Company with branches and stocks in principal cities. ORANGEBURG MANUFACTURING CO., Orangeburg, New York, Division of The Flintkote Company, Manufacturer of America's Broadest Line of Building Materials.

Designed to eliminate handle jiggling forever!

**U/R WATER CLOSETS**

with exclusive Uni-Tilt® flush valve

Here's the greatest advancement in flushing efficiency in years. With the revolutionary new Uni-Tilt® Flush Valve in U/R Water Closets, your home buyers will never again jiggle the handle... never again experience running water nuisance.

Exclusive with Universal-Rundle, the Uni-Tilt's unique pivotal action guarantees a positive flush... reseats itself perfectly every time. It's been proven 100% foolproof in literally thousands of field tests. Write for U/R's new full-line catalog to Universal-Rundle Corporation, 712 River Rd., New Castle, Pennsylvania.

**Universal Rundle**

THE WORLD'S FINEST PLUMBING FIXTURES FOR 60 YEARS

Plants in Camden, N.J.; New Castle, Pa.; Redlands, Calif.; Hondo, Texas.

Export Sales: 115 Broad St., New York, N.Y.
FOR THE FINEST PROTECTION

PROTECTUB is the BRAND to remember

for preventing damage after installation

IT'S NEW! ALUMACOAT

A TOUGH FLEXIBLE AND STRIPPABLE FILM

Protect ALUMINUM SASH AND WINDOWS FROM PAINT
AND PLASTER DURING CONSTRUCTION. Also metals -
DIES - TOOLS - MOLDS - GLASS-CERAMICS - TILES - MARBLE -
wherever heavy equipment or material must be protected against
corrosion, chemicals, chemical fumes, or abrasion - use ALUMACOAT!

COATATUB

Liquid vinyl plastic coat applied
with ordinary white wash brush,
dries to strong flexible film, peels
off. Use thinner to clean brush
after applying paint.

Note: one gal. can covers 4-5 tubs.

ALUMACOAT coating is
stable, strips cleanly and
can be easily applied by
conventional industrial
spray or painting methods
to objects of any size.

PROTECTUB

deluxe cover—made of thick
corrugated boxboard with ex-
clusively processed water re-
pellent top liner. Custom
made to fit your individual
tub. Installs in minutes with
no expensive cleaning after
installing.

GET INTO THE SWIMMING POOL BUSINESS!

WE take the Risk...
YOU take the Profits...

highly seasonal, but highly profitable...
that's the danger and the lure of the Pool
Supply Business. Modern eliminates the
risk... gives you a one-step resource for
your complete department... guarantees
the sale of your stock to 99% of your initial
order... supplies the know-how you need
for a profitable operation. You're in the
business at the start of the season... out
clean when the season ends... and you've
made money all the way. Write on your let-
terhead for complete details without obliga-
tion.

FREE!
The industry's most complete
"Bible"...40 pages of authori-
tative facts on pool care and
operation PLUS descriptions,
photos, prices on every item
required for pool construc-
tion, operation and mainte-
nance.

MODERN, One Holland Ave., White Plains, N. Y.

PRINT NAME
ADDRESS
CITY STATE Z1D

DELTA FAUCET CORPORATION
GREENSBURG, INDIANA

178 AMERICAN BUILDER
designed to be built in....

**HALL-MACK**

BATHROOM ACCESSORIES

RECESSED UNITS

For that extra touch of delightful luxury and comfort in your bathroom, there’s nothing to equal the classic styling of Hall-Mack built-in accessories. Their quiet dignity blends harmoniously with any decor... saves precious space... provides extra convenience for every member of your family.

The traditional fine quality of Hall-Mack accessories brings lifetime beauty to your bathroom... combines discriminating concealment with full utility. Accessories make the bath, so to be sure to specify Hall-Mack when you build or remodel.

**HALL-MACK COMPANY**

division of Textron Inc.
1380 W. Washington Blvd.,
Los Angeles 7, Calif.

Please send your free color booklet on bathroom planning

Sold by leading plumbing, tile and hardware dealers everywhere
The Mighty Middle home market offers you your biggest profit opportunity. Gerber mass produces a complete line of basic plumbing fixtures for this market, eliminating specialty items which are expensive to make and sell. Savings are put back in the form of moderate prices and added features — some exclusive, others found only on more expensive lines.

Builders are selecting Gerber styling, quality and beauty for jobs ranging from moderately priced homes to luxury hotels, motels and similar structures ... both custom and tract. Select Gerber fixtures in six colors or white, in your building price range. Exclusive features make installation quick and easy.

See our condensed catalog in Sweet's, or write for your copy of Gerber's 94-page full line catalog.

"Plumbing Fixtures for the Mighty Middle" • Gerber Plumbing Fixtures Corp., 232 N. Clark St., Chicago, Illinois
5 Factories: Kokomo, Ind., Woodbridge, N. J., Delphi, Ind., Gadsden, Ala., West Delphi, Ind. • Export Div.: Gerber Int'l. Corp., 500 Green St., Woodbridge, N. J.
HEATING, COOLING, VENTILATION
Condensed Method of Estimating Heating Requirements

"CONDENSED METHOD" HEAT LOSS FACTORS*

<table>
<thead>
<tr>
<th>1. WINDOWS &amp; DOORS</th>
<th>Multiply sq. ft. by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Without storm sash</td>
<td>113</td>
</tr>
<tr>
<td>b. With storm sash</td>
<td>75</td>
</tr>
<tr>
<td>c. Double 3/4&quot; glass with 1/2&quot; sealed air space between</td>
<td>55</td>
</tr>
<tr>
<td>d. 2 OUTSIDE WALLS (NET)</td>
<td>Multiply sq. ft. by:</td>
</tr>
<tr>
<td>a. SOLID MASONRY—(Brick, stone, etc.) with plaster applied direct to inside surface of masonry wall</td>
<td>45</td>
</tr>
<tr>
<td>b. AVG. FRAME—Brick Veneer—Wood Siding—Shingles or Stucco—with sheathing, bldg. paper, studs, lath and plaster</td>
<td>30</td>
</tr>
<tr>
<td>c. FURRED MASONRY—(Same as 2a with air space between plaster and masonry wall)</td>
<td>30</td>
</tr>
<tr>
<td>d. INSULATED FRAME—Same as 2b—with 1&quot; or less insulation board or blanket</td>
<td>20</td>
</tr>
<tr>
<td>e. HEAVILY INSULATED—Same as 2b with 2&quot; or more insulation</td>
<td>10</td>
</tr>
<tr>
<td>2. CEILINGS &amp; INSIDE WALLS</td>
<td>Multiply sq. ft. by:</td>
</tr>
<tr>
<td>a. CEILING—Plaster on lath or wall-board. No floor above—Attic not vented</td>
<td>34</td>
</tr>
<tr>
<td>b. Same as 3a—with 2&quot; or more insulation and ventilated attic</td>
<td>12</td>
</tr>
<tr>
<td>c. CEILING of first floor room below unheated room on second floor</td>
<td>17</td>
</tr>
<tr>
<td>d. INSIDE WALL adjacent unheated room</td>
<td>17</td>
</tr>
<tr>
<td>4. FLOORS</td>
<td>Multiply sq. ft. by:</td>
</tr>
<tr>
<td>a. Double wood floor—over cool basement or other enclosed space</td>
<td>15</td>
</tr>
<tr>
<td>b. Same as 4a—but open space below floor exposed to outside</td>
<td>32</td>
</tr>
<tr>
<td>c. Concrete floor—Directly on ground. No edge insulation</td>
<td>10</td>
</tr>
<tr>
<td>5. INFILTRATION (AIR LEAKAGE)</td>
<td>Multiply each sq. ft. of window and door area by:</td>
</tr>
<tr>
<td>a. WINDOWS AND DOORS. Average fit—Not weatherstripped</td>
<td>50</td>
</tr>
<tr>
<td>b. Average fit—weatherstripped (or equipped with storm sash)</td>
<td>30</td>
</tr>
<tr>
<td>c. Poor fit—not weatherstripped</td>
<td>140</td>
</tr>
<tr>
<td>d. Poor fit—Weatherstripped (or equipped with storm sash)</td>
<td>43</td>
</tr>
<tr>
<td>e. EXTRA FOR EACH OUTSIDE DOOR</td>
<td>1000</td>
</tr>
<tr>
<td>f. EXTRA for air lost up fireplace flue</td>
<td>3000</td>
</tr>
</tbody>
</table>

*Above factors are approximate heat loss through each sq. ft. of surface with 70° inside and —30° outside.

HOW TO USE THE CONDENSED METHOD HEAT LOSS FACTORS

Quantities of heat are measured in units called British Thermal Units (abbreviated BTU).

1. Window and outside door area (combined).
2. Net outside wall (gross wall area minus item 1).
3. Ceiling area (below unheated room or attic space). Inside walls adjacent unheated rooms.
4. Floor area (if space below floor is not heated).

Each of the above areas should then be multiplied by the proper factor from one of the Condensed Method tables.

A Next, estimate infiltration losses. This depends on the amount of cold air blown into the house, which is in turn dependent on the size of the window or door and the width of the crack around it. Simply multiply the area of windows and doors already calculated in Step A by the infiltration factor selected from Table 5. Also, since there is more air leakage through door cracks than through window cracks, allow an additional 1000 BTU for each outside door. Add 3000 BTU for each fireplace.

C Add the infiltration losses (Step B) and the transmission losses through the windows, walls, etc. (Step A) all together. The sum is the heat that would be lost from the room or building — if the temperature difference between inside and outside were 100°. In other words, this is the amount of heat it takes to maintain 70° inside when the outside temperature is 30° below zero, which would occur only in the very coldest sections of the United States.

D Heating requirements are naturally less where the weather does not get so cold. The average minimum temperature in Dallas, Texas, for example, is only 10° above zero. The "design temperature difference" between inside and outside would be 70° minus 10° equals 60°. Therefore, the heating requirement is only 60/100 or 60% of the amount based on 100° TD.
HEATING, COOLING, VENTILATION
Design Data for Perimeter Heating

METHODS OF ANCHORING DUCTS
- Metal Bracket
- Concrete Block
- Tie-Down Rods

Concrete Puddle

PLenum and Duct Installation
- Radial Duct
- Concrete
- Moisture Barrier

REGISTER OUTLET FORMS
- Wooden Register
- Concrete Register

REGISTER LOCATION

Concrete Slab

PERIMETER LOOP SYSTEM WITH FEEDER AND LOOP DUCTS IN CONCRETE SLAB
- Feeder Ducts and Loop in Slab
- Perimeter Warm Air Outlets

PERIMETER LOOP SYSTEM WITH FURNACE OVER LOOP
- Perimeter Warm Air Outlets
- Feeder Ducts and Loop in Slab

PERIMETER RADIAL SYSTEM WITH FEEDER DUCTS IN CONCRETE SLAB OR CRAWL SPACE
- Perimeter Warm Air Outlets
- Radial Ducts

CRAWL SPACE PLENUM SYSTEM
- Short Ducts Min. 6 ft
- Perimeter Warm Air Outlets
HEATING, COOLING, VENTILATION

Electric Resistance Heating

BASEBOARD ELECTRIC HEATING

CONVECTOR FIN

SEAL

HEATING ELEMENT

JUNCTION BOX

CONNECTION BETWEEN PANELS

THERMOSTAT

4'

TYPICAL INSTALLATION

RADIANT ELECTRIC HEATING BY CABLE

HEATING CABLE

PLASTER CEILING

GYPSUM CEILING

FLOORING

Baseboard-electric heating is basically the same as hot-water baseboard heating. The difference lies in the use of a resistance heating element in place of a hot-water convector.

A heating rod of the same type as used in a cooking range runs the length of the baseboard panel. Convector fins are added to increase the heat transfer area. The heating element operates at "black heat" (it cannot climb above 150 degrees fahrenheit), so it cannot cause injury.

Baseboard panels heat approximately 50 per cent by convection and 50 per cent by radiation. They are controlled by individual room thermostats. Heat is almost instantaneous upon demand.

Courtesy: Hotpoint, Inc.

Electric-resistance heating of a home can also be accomplished by means of radiant cables. These are flexible resistance cables buried in the ceiling, floor or walls.

They differ from baseboard-electric heat in that virtually all of their heating is by radiation.

Most common area for radiant-heat cables is in the ceiling. Cables are stapled to either lath (if ceiling is plaster), or gypsum board. Then either the plaster or an additional layer of gypsum board is put over the cable, as shown in the drawings.

The amount of cable required will depend upon the design of the house and its geographical location. Control is by individual room thermostats.

Courtesy: Ceilheat, Inc.
HEATING, COOLING, VENTILATION
Design Data for Circulating Hot Water Heating

SERIES LOOP
ONE-PIPE
TWO-PIPE

PERIMETER HEATING SYSTEMS

HOT-WATER STORAGE TANK
CITY WATER SUPPLY
AUTOMATIC MIXING VALVE SET AT 140°F.
INDIRECT WATER HEATER
NOTE: IF STEAM, CONNECT 2' BELOW WATER LINE
SUPPLY TO RADIATORS
RETURN

BASEBOARD PANELS
FINNED TUBE
COMMERICAL HEATING
TIERED FINNED TUBES

BASEBOARD PANELS
CAST IRON
COMMERICAL AND RESIDENTIAL HEATING
RECESSED OR NON-RECESSED
FOR USE WITH WALL-TO-WALL CARPETING (BOTH ABOVE TYPES)

RADIANT + CONVECTED
HEAT = 3° DIFFERENCE BETWEEN FLOOR AND CEILING

 Courtesy: Better Heating-Cooling Council

AMERICAN BUILDER
HEATING, COOLING, VENTILATION
Forced Warm Air Heating

Type of furnace—high boy, low boy, counterflow, or horizontal—depends upon location, space available, and type of system. Choose labeled furnace for safety and good performance. True comfort requires filtered, humidified air circulated gently and evenly.

Duct system of engineered design required. Must be installed in accordance with design and proper clearances in accordance with applicable codes. Install balancing damper in each branch duct. Final adjustment and owner comfort depends on it.

Streamlined fittings needed for free-flowing system. Flexible connectors between furnace and duct system prevent vibration transmission.

Perimeter diffusers located under windows give most uniform comfort and assure best air distribution. Air from perimeter diffusers should fan upward in front of windows. Diffusers may be in floor, baseboard, or low sidewall location.

Locate thermostat approximately 30-in. from floor. This is “sitting level” at which occupants are most sensitive to air temperature. Choose sensitive thermostat which will give frequent, short burner cycle for even room temperature.

System must be balanced and adjusted to obtain uniform temperatures throughout every room of the house. Comfort Air Circulation adjustment also provides almost constant blower operation necessary for best balance and continuous, gentle air motion.

Courtesy: National Warm Air Heating and Air Conditioning Association
Types of cooling units—unitary, self-contained companion unit, evaporator with remote condenser unit, or heat pump (both heating and cooling)—any of these can be air cooled or water cooled. Select type to fit space and availability of water.

Comfort cooling requires gentle, even circulation of filtered, cooled, and dehumidified air. Fan and filter may be common to both heating and cooling systems.

Same features designed into quality duct system for cooling as for heating. Properly engineered, same duct can be used year-round.

Cover all supply ducts and fittings in unconditioned spaces and return lines through attic spaces with good insulation and vapor barrier. All joints of vapor barriers must be sealed.

Perimeter diffusers are excellent for year-round use. Ceiling diffusers and high side-wall outlets distributing air horizontally are especially good for cooling. Where cooling is involved, high-side-wall returns are particularly desirable.

Reverse-acting thermostat is required to control the operation of cooling unit. A second thermostat located adjacent to heating thermostat or a combination thermostat may be used for year-round control.

Sensitive thermostat with close differential is desirable for shorter "off-periods." Setting is usually made somewhat higher than heating (77° to 80°).

System must be balanced and adjusted in order to obtain uniform temperatures throughout every room of the house. Comfort Air Circulation adjustment also provides almost constant blower operation necessary for best balance and continuous, gentle air motion.

 Courtesy: National Warm Air Heating and Air Conditioning Assoc.
**HEATING, COOLING, VENTILATION**

Planning for Air Conditioning

**Orientation**

1. Sun exposure very brief, if any.
2. Little sunshading needed.
3. Overhang can be minimum.

1. Sun exposure is short and intensity is partly relieved by cool air.
2. Overhang and reflective screens ineffective.
3. Low trees or hill give valuable shade.

**Solutions (in order of effectiveness)**

A. Sunshading by walls, trellis, lattice, high fences, low trees, etc.
B. Awnings.
C. Attached carport or garage.
D. Reflective screens.
E. Minimum Glass Area.

1. Sun exposure is sustained and intensified by day's hottest air.
2. Both tall and medium trees are needed for shade.

**Solutions (in order of effectiveness)**

A. Attached carport or garage.
B. Porch or veranda.
C. Glass area fully shaded.
D. Storage cabinets in wall.
E. Awnings or reflective screening.
F. Avoid slab reflecting heat against wall.

1. Sun is almost overhead and wall absorption is moderate.
2. Exposure is sustained and intense.

**Solutions (in order of effectiveness)**

A. Recommended overhang.
B. Reflective screens.
C. Large glass area (if used) under recommended overhang.
D. Awnings.
E. Avoid slabs reflecting heat against wall.

*Since "ideal orientation" can seldom be attained in project planning, it is necessary to minimize the heat gain through the use of sun-shading devices. Orient your house plan in circle. Locate center of house in center of circle. Draw line from center perpendicular to each wall of house and extend line beyond circumference of circle (see example). Read recommended wall treatment and sunshading in the quadrant that each wall faces. Naturally, these suggested sunshading devices apply whether or not you plan to install air conditioning (cooling) equipment.

**Recommended Roof Overhang**

<table>
<thead>
<tr>
<th>Latitude</th>
<th>Height of Eaves Above Window Sill</th>
</tr>
</thead>
<tbody>
<tr>
<td>25°</td>
<td>24° 30° 36° 42° 48° 54° 60° 66° 72° 78° 84° 90° 96° 102°</td>
</tr>
<tr>
<td>30°</td>
<td>9 12 14 16 18 21 23 25 27 30 32 34 36 37 39</td>
</tr>
<tr>
<td>35°</td>
<td>14 18 22 25 29 32 36 40 43 47 50 54 58 61</td>
</tr>
<tr>
<td>40°</td>
<td>17 22 26 30 35 39 43 37 52 56 60 65 69 73</td>
</tr>
<tr>
<td>45°</td>
<td>20 25 31 36 41 46 51 56 61 66 71 76 82 87</td>
</tr>
<tr>
<td>50°</td>
<td>25 31 37 43 50 56 62 68 74 80 87 93 99 105</td>
</tr>
</tbody>
</table>

*Dimensions below staggered line generally not practical as an overhang unless used as porch due to added cost and structural problems. Figures apply to wall facing south.

**Data From National Association of Home Builders**
Ventilating Fans

Where fans are installed to discharge directly to outside they should be located with prevailing winds.

Fans discharging directly into attic should be centrally located if possible.

Flat-roofed buildings without adequate attic space should be provided with a penthouse for fan location. Either vertical or horizontal units may be used.

Provide adequate protection against fire in all installations. Various devices are available to insure fan cut-off and closing of intake louvres.

**MINIMUM AREAS FOR DISCHARGE OPENING**

<table>
<thead>
<tr>
<th>TYPE OF OPENING</th>
<th>SQUARE FEET PER 1000 CFM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood louvres backed with 1/2&quot; hardware cloth, 40% minimum free area</td>
<td>2.27 Sq. Ft. per 1000 CFM</td>
</tr>
<tr>
<td>Metal louvres backed with 1/2&quot; hardware cloth, 50% minimum free area</td>
<td>1.82 Sq. Ft. per 1000 CFM</td>
</tr>
<tr>
<td>Plain opening covered with 1/2&quot; hardware cloth, 80% minimum free area</td>
<td>1.14 Sq. Ft. per 1000 CFM</td>
</tr>
<tr>
<td>Automatic or manual shutters, 90% minimum free area</td>
<td>1.01 Sq. Ft. per 1000 CFM</td>
</tr>
</tbody>
</table>

**ESTIMATING FAN REQUIREMENTS**

The following formula will aid in determining the size of the fan required to adequately ventilate a given area:

*Cu. Ft. Volume of Area * CFM (Fan Capacity)

**Rate of Air Exchange**

When estimating cubic feet contents, closets and other unoccupied areas may be deducted.

**Select rate of air exchange according to locality from map at the right.

Example:

Volume = 15,000 Cu. Ft.
Desirable air change = 1 1/2 minutes

15,000 = 10,000 CFM (Fan Capacity)

**FAN LOCATIONS**

- SUCTION BOX
- ATTIC STAIRWAY
- GABLE INSTALLATION
- ATTIC WALL
- PENTHOUSE
- BASEMENT
- VERTICAL DISCHARGE

The installation of attic fans generally follows the three methods shown at top of page. In homes with basements it is sometimes practical, and equally effective, to install the fan in a compartment beneath the basement stairs allowing the discharge to exhaust directly into the basement proper. Intake and discharge louvres should follow the same rules that apply to attic installation. The same precautions should be taken against fire.
The heart of a successful fireplace is a Donley Damper.

To help builders and home owners select correct fireplace equipment, Donley Brothers offers its 80-page Book of Successful Fireplaces containing over 300 illustrations, plans and basic construction ideas.

Thousands of copies of this book are sold every year — proof that builders and homeowners recognize Donley's leadership in designing successful heat-producing and smoke-free fireplaces.

This buyer acceptance means nationally-advertised Donley Dampers produce easier sales and greater profits. Buying all their fireplace requirements from one source gives Donley Dealers the added advantages of quantity discounts and lower shipping costs. Send today for complete information.

Donley
THE DONLEY BROTHERS CO.
INSTALL LOW COST, PACKAGED,
ZONE CONTROL BASEBOARD HEAT
...build your reputation for value!

EDWARDS... the one dependable manufacturing source for all hydronic and electric heating and cooling equipment... for new homes, older homes, motels, apartment houses, schools, churches, etc. Factory guaranteed... virtually eliminates costly call-backs. Edwards zoned systems are competitively priced with non-zone hot air systems and are completely assembled at the factory.

OIL AND GAS HEATING UNIT
Space-saving design (3' long x 2' wide x 3' high).
Completely wired. 100% automatic air elimination.
Oil-fired units are completely smokeless; feature rumble suppressant design. 100,000 to 3,000,000 BTU/Hr capacities.

HYDRONIC BASEBOARD RADIATION
Lengths from 2 to 20 feet.
Installation is simple and fast; quiet wire slide for 1/2" and 3/4" sizes.
I.B.R. approved ratings.
Available in chrome, copper-tone, wood-grain, white primer coat.

COMPACT MOTORIZED ZONE CONTROL VALVES
Sealed mercury switches.
Completely silent, long life, Positive shut-off valve.
Powerful electric motor gear drive. For hot water, steam or chilled water systems.
1/2" to 2".

ELECTRIC BASEBOARD RADIATION
Ideal for new construction, remodeling or mobile homes.
Low cost. Perfect for zoned heat—just plug it in.
No need for pipes, ducts, furnaces or chimneys. Portable models also available.
Lengths from 3' to 12' in chrome, copper-tone, wood-grain or white primer coat.

For complete data on any or all of the above EDWARDS products, write today to:

EDWARDS ENGINEERING CORP.
239-4 ALEXANDER AVENUE
POMPTON PLAINS, NEW JERSEY
Temple 5-2808

CONNECTION ENGINEERING CORPORATION
3511 WEST POTOMAC AVE., CHICAGO 51, ILL

POST OFFICE WILL NOT FORWARD MAGAZINES!
You must write us, prior to moving if possible, giving both old and new address, also postal zone. Allow three weeks for change.

AMERICAN BUILDER BOX 961 • BRISTOL, CONN.

FREE SAMPLE FIBRE DUCT
Moisture-Proofed • Extra Strong • Crush-Proof • Termite-Proof the most rigid fibre duct model

NOW SAVE 75% on MATERIAL 80% on LABOR COSTS
On Ducts for AIR CONDITIONING and PERIMETER HEATING
INTERNATIONAL FIBRE DUCT DIVISION
3800 Park Ave., St. Louis 10, Mo.
Do away with costly metal or concrete ducts. Set up for fast installation—no delays—at low cost— in heating and air conditioning.
For free literature
NAME
ADDRESS
Mr. Sam Hoff (left), Kansas City, Missouri, says:

"GAS AND ARKLA-SERVEIL SUN VALLEY ARE MY CHOICE
... because the quality market demands central air conditioning."

The prediction by housing authorities that homes without central air conditioning will be hard to sell in the future, has almost come true today. "Arkla-Serveil Sun Valley All-Year Gas air conditioning in my houses is assurance to my customers that I am offering not only a quality-built house but one that is planned for the future," Builder Hoff says.

Home-buyers look for Gas equipment because they know Gas is dependable, that service expenses will be low and that the local Gas company is solidly behind the quality of these units... a plus for builder and user alike.

Nothing cools more cleanly, more comfortably than Gas.

It costs less to cool an entire house with Gas than to cool just part of it with individual units. In summer, Gas cools with filtered, de-humidified air. In winter, constantly-circulating warm air keeps rooms healthfully fresh.

Make sure your houses are equipped with Gas appliances... the equipment home-buyers look for because they know and trust its performance. Call your Gas company, or write Arkla Air Conditioning Corp., 812 Main Street, Little Rock, Arkansas. There's an Arkla-Serveil Sun Valley All-Year Gas air conditioner to fit every home.

*Trademark

The "Buy Words" for '61...

Live modern...for less...with GAS
...in these genuine wood-burning

**Majestic**

**THULMAN FIREPLACES**

"Harthside"

**CORNER MODEL**

For corners, L-shaped rooms, room dividers — many other installation possibilities.

"Harthfront"

**FRONT-OPENING MODEL**

For conventional installations — use modern or traditional mantels.

Both units are all metal factory-built

Write for details!

Needs no special construction! One workman can erect several a day. Vented by Majestic all-metal chimney. All-metal, brick-like chimney top housings in red, tan or off-white. Class A and B chimneys for furnaces, water heaters, incinerators, other appliances.

The Majestic COMPANY, INC.

433 Erie St., Huntington, Ind.

---

**BRAND NAMES DIRECTORY**

(Continued from page 168)

NAIRN Congoleum-Nairn Inc
NAIRON Congoleum-Nairn Inc
NAKORA US Plywood Corp
NALCO National Lead Co
NATEX Nalex Plastics Inc
NAM-A-LAC Mobile Paint Mfg
NARRO WALL Holly-General Co Div Siegler Corp
NATCHez FLAT ENAMEL Mobile Paint Mfg Co
NATCHez LUSTER-NAMEL Mobile Paint Mfg Co
NATIONAL Columbia Geneva Div US Steel
NATIONAL Metal Trims Inc
NATIONAL National Window
NATIONAL Tilley John S Ladders Co Inc
NATIONAL BRAND National Forest Products Co
NATIONAL DISPOSER National Ruberoid Co
NATIONAL INSTANT-HOT National Rubber Machinery
NATIONAL LIFETIME TILE National Tile & Mfg Co
NATIONAL WINDOW National Window Corp
NAUTILUS NO-DUCT Major Industries Inc
NEGATOR BALANCETTE Caldwell Mfg Co
NEG-O-GLO Market Electric Prols Inc
NEOCOAT Pennsalt Chemicals
NEOPRENE ALL SEAL Sun-Thin Products Co
NEPTUNE Flat Metal Mfg Co
NEUTONE Martin-Senour Co
NEVAMAR National Plastic Products Co
NEVAMAR Nevamar Carefree Kitchens
NEVER-STAIN Nichols Wire & Aluminum Co
NEW DIMENSION Sterling Fauster Co
NEW LONDONER Curtis Companies Inc
NEW STANDARD Extension Drawer Support Co
NEWPORT Hoover Bathroom Accessories
NI-CLAD Lufkin Rule Co
NIAGARA MASONRY BLADES Carborundum Co
NICALUN American Abrasive Metals Co
NICHOLSON Nicholson File
NITEAIR Rau Blower Co
NO DRIP Mortell J W Co
NO-FIL Behr-Manning Co
NO SCRUB Goodnes Aerospace & Rubber Co
NO-TAB-IN Rutland Fire Clay Co
NOMEC Lock-Joint Window Co
NON CON Dux Wilson, Grant
NORDAHL FEATHER-GLIDE Nordahl Sliding Door Frames
NORDAHL FEATHER-TOUCH Nordahl Sliding Door Frames
NORDAHL SPACEMAKER Nordahl Sliding Door Frames
NORK General Hardware Mfg
NORMANS Paxton Brick Co
NORTH-LITE Great Northern
NORTHERN-WARE Great Northern Mfg Corp
NORTON Behr-Manning Co
NORWESTCO Northwest Metal
NORWOOD Lawrence W W
NOSTAIN Modern Swimming Pool Co Inc
NOVO Novo Pump & Engine
NOVOPLY US Plywood Corp
NOVOPLY US Plywood Corp California Div
NOX-EM-ALL Allied Chemical Corp Barrett Div

(Continued on page 202)

**IMPERIAL**

**gas furnaces**

by Basmor-Little

- Finest controls and deluxe trim
- Variable speed belt drive blower
- Four sizes — upflow or counterflow

Clean, quiet, dependable winter air conditioning at its best. Efficient, low cost operation and long, trouble-free service. Extreme flexibility for modern gas heating requirements.

Decorator styling and compact size mean attractive, space-saving installation in basement, utility room, family room or playroom. AGA approved for reduced clearance, and installation on combustible floor. Write for details!

**Give your homes the finest winter air conditioning at low cost!**

Basmor—Little Furnaces, Gas Heaters, Boilers, Water Heaters, Incinerators

Bastian-Morley Co., Inc.

(Incorporating H. C. Little Burner Co., Inc.)

La Porte, Indiana

(Continued on page 202)
This pint-size package (only 2 ft. tall) easily heats a seven room house. It's incredible efficiency comes from hundreds of fins cast integrally with the boiler.

Crane's new budget-priced gas-fired boiler, the Sunnyday-3, that automatically adjusts its heat output to outdoor weather conditions. Its temperature of air outdoors

Cool
HOT

COOL
HOT

Temperature of water in system

Constant 72° indoors

incredible efficiency comes from hundreds of fins cast integrally with the boiler

that lap up more heat and transfer it instantly to the water inside. Because

it's 100% factory assembled you can install it in a jiffy, even on wooden floors!

Now — you can install hydronic heat, with its distinct advantages, almost as economically as warm air.

This amazing Crane Sunnyday-3—compact, uncomplicated—saves time and labor on the job. It's completely assembled and wired at the factory...in 3 sizes—from 60,000 to 100,000 BTU capacity. A man and a boy can carry it...install it quickly. Easily. Anywhere. Only 1-inch clearance necessary. The 60,000-BTU Sunnyday-3, for instance, is just 25½" high, 15½" wide. Yet does the big work of regular boilers that bulk and cost far more. Because it is specially designed, specially engineered for mass-market homes, it helps you bring luxurious, draft-free hydronic heat to home owners at just about the cost of an efficient warm-air system. It's silent, a real fuel-saver and responds instantly to thermostat demands. For more details on the revolutionary new Sunnyday-3 Boiler see your regular contractor or your Crane representative. Or write Crane Co., Plumbing-Heating-Air Conditioning Group, Box 780, Johnstown, Pennsylvania.
The amazingly compact house heating boiler is concealed behind the grille work of this countertop cabinet, providing added working space in the kitchen. View at left shows a section of development.

The outstanding sales power of Hydro-Flo hydronic heating helps account for the remarkable sales performance of Campanelli Brothers' Weathersfield homes in suburban Schaumburg, Ill.

The homes in this huge development, priced at $15,590 to $21,500, are selling at the rate of three per day.

The sound judgment of the builders in choosing radiant hydronic heating is obviously paying off. "Radiant heating with its sunlike warmth," said Mr. Al Campanelli, one of the builders, "can't be equalled for genuine comfort and cleaner, quieter operation."

The B&G Hydro-Flo system operates with unrivalled economy—and further offers the optional advantages of plentiful, low-cost year-round hot faucet water and snow-melting. These are the reasons why progressive builders are finding Hydro-Flo Heating a clinching sales feature.
SELL MORE HOMES THIS YEAR WITH

GM-DELCO’S TRIPLE SALES OFFENSIVE

1. A HOT, NEW GAS-FURNACE LINE
   The new 1961 GM-Delco upflow models for perimeter, basement or closet applications come in units up to 190,000 BTU input capacity. For homes without basements, the GM-Delco Counterflow Model is ideal. And for compact situations, you can't top the GM-Delco Slim, Horizontal Gas Furnace. They all have the stamp of GM Reliability—your assurance of better performance and fewer “call-backs.”

2. SOLID NATIONAL ADVERTISING THAT PRE-SELLS THE GM-DELCO NAME
   Your prime home-buying prospects will be exposed to a broad schedule of national GM-Delco advertising, carefully designed to promote the GM-Delco brand name. This advertising makes the most of the inherent value in the General Motors name—and helps you sell homes. Buyers identify your GM-Delco installation in a model with quality.

3. A FLEXIBLE, LOCAL MERCHANDISING PACKAGE TO FIT YOUR MARKET
   GM-Delco brings you a hot new merchandising package for maximum impact on your individual market. You can pick and choose from the best in billboard signs, local radio and TV scripts, 1000 and 500-line newspaper ads, brochures and tack-up signs for models. Pinpoint and apply features of this flexible GM-Delco program to your local sales objectives.

The brand name that identifies your homes with Quality

DELCO APPLIANCE DIVISION, GENERAL MOTORS CORPORATION, ROCHESTER 1, N.Y.

APRIL 1961
Flameless ELECTRIC HEAT

by Electromode

CHOICE OF TODAY'S HOMEOWNERS

Electromode Heaters are the builders' choice, too! They give you complete freedom of design because you can choose Electromode in a model best suited to the specific need of each room—and each room has its own thermostat. Electromode Electric Heating in your plans is truly the modern way to build. No need for ducts, chimney, pipes, nor even a furnace, to waste space.

ELECTROMODE WALL TYPE HEATERS

FAN-CIRCULATED HEAT

CLEAN • CAREFREE • SAFE

These heaters have the Electromode exclusive Safety Grid heating element. All electric wires are insulated, embedded and completely sealed inside a finned aluminum casting. Assures positive protection from fire, shock or burn. Built-in power shut off Safety Switch automatically prevents overheating.

DOWN-FLO HEATER

FOR BIG ROOMS

Has the Electromode exclusive Down-flo principle, assuring warmth at floor level. Just right for cold hallways, recreation rooms, and other hard-to-heat areas.

BATHROOM HEATER

Ideal for immediate, economical heat in bathroom or small room. Smart styling adds to bathroom beauty. Chrome or white enamel finish.

ELECTROMODE RESIDENTIAL QUARTZONE HEATER

Radiates gentle, sunlike warmth, making this model especially suited to the bathroom. No drafts, no overheating of the entire room. It warms people and objects, not the air. Also useful for porches and small spot heating in large unheated areas.

For full details on Complete Electromode Line, write Dept. AB-61

Electromode Division of Commercial Controls Corporation

COMPLETE ELECTROMODE LINE

includes every type of electric heating available for home application. In addition to those illustrated, you have a big choice of many other models.
For the first time you can offer your home buyers a ventilating system that ventilates up to 4 areas in the home...and you can do it for less cost than ever before possible. The Centrl-Vent is a built-in system with both mechanical and electrical controls in each room being ventilated. The entire unit installs in less than 1½ hours and costs far less to buy and install than an individual range hood motor and blower unit and wall or ceiling vent fans. You can’t afford to overlook the tremendous sales appeal and extra profit the Centrl-Vent will add to your 1961 homes.

Now...A great new concept in home ventilation

For the first time you can offer your home buyers a ventilating system that ventilates up to 4 areas in the home...and you can do it for less cost than ever before possible. The Centrl-Vent is a built-in system with both mechanical and electrical controls in each room being ventilated. The entire unit installs in less than 1½ hours and costs far less to buy and install than an individual range hood motor and blower unit and wall or ceiling vent fans. You can’t afford to overlook the tremendous sales appeal and extra profit the Centrl-Vent will add to your 1961 homes.
Van-Packer factory-built chimney meets needs of every home price range, is attractive, easy to install

Here's an attractive chimney suitable even for the higher priced homes you build. The Van-Packer chimney with deluxe asbestos-cement housing looks good on any home. Housing panels have an embossed brick design with indented "mortar lines" that look natural, in your choice of red, buff, gray, or white brick colors.

For durability, Van-Packer offers this rugged flue construction:

The fire clay tile liner won't corrode, is acidproof, and won't dent or flake off. Flue sections are joined with acidproof cement and are secured with snap-lock drawbands to form a rigid, rustproof unit that outlasts other factory-built chimney flues.

Van-Packer flues withstand temperatures up to 2100°F and are widely approved by building codes. Distributed nationally, they are available for immediate delivery anywhere. See "Chimneys Prefabricated" in the Yellow Pages, or write for Bulletin RS-1.

New embossed metal housing now available

In addition to the asbestos-cement housing, Van-Packer now offers a rugged new metal housing with brick-embossed design, in red, buff, or white brick colors.

The new Van-Packer metal housing is ideal for homes in medium and lower price ranges. It is quickly, easily installed — paring your labor costs to the bone. Available in all standard sizes for Van-Packer tile-lined chimneys or masonry gas vents.

Van-Packer Chimney is safe for incinerators

The Van-Packer all-fuel chimney is ideal for service with incinerators, and can be quickly and easily installed. It is UL-listed to withstand temperatures up to 2100°F — completely safe for incinerators. The high draft provided by a Van-Packer assures complete burning of refuse, and the fire-clay tile liner easily withstands the sudden heat shocks encountered in incinerator service.
for the builder who wants fresh, modern styling, Bryant quality, low in-place cost

**NEW**

**FROM**

**bryant**

**TWO NEW LINES**

**STYLED BY** **RAYMOND LOEWY**

New, clean-lined styling and smart, new color combinations to go with your modern interiors — they say “quality” at first glance.

**393 SERIES** — Top styling, eye appeal and quality in a furnace priced to give you a low in-place cost.

**395 SERIES** — The last word in a deluxe furnace for the buyer who expects the best — which you can now give him for only a few dollars more.
Both of Bryant's new gas-fired furnaces are in local stocks ready for delivery. Call your Bryant dealer, distributor or factory branch and arrange to see these beautiful furnaces, and compare them feature-for-feature, dollar-for-dollar with what you are now using.

EXTRA SALES FEATURE... These furnaces feature extra quiet blowers with the capacity to handle air conditioning.

"MORE FOR THE MONEY" in a Bryant furnace than ever before.

NEW FULL LINE... You'll never be stuck for the right size and model. Both series come in upflow, downflow and regular basement models. Capacities: Series 393, 80,000 Btu to 150,000 Btu; Series 395, 80,000 Btu to 400,000 Btu.

SERVICE GEARED TO YOUR NEEDS
Your Bryant dealer is ready to work with you all the way from system layout to owner follow-up. He is factory-trained and backed up by the distributor or factory branch. He's set up to save you money, time and trouble.

ASK YOUR DEALER ABOUT BRYANT'S NEW BUILDER PROPOSITION
a new merchandising concept to help you sell homes.

BRYANT MANUFACTURING COMPANY - INDIANAPOLIS, INDIANA
"PREFAB" GLASS FIBER DUCT INSTALLS ALMOST TWICE AS FAST AS INSULATED METAL DUCTS

G-B Duct provides "built-in" insulating and noise absorbing benefits

As much as 50% of installation time can be saved by using G-B Duct. This unique air handling system is completely prefabricated at the factory. Six-foot sections arrive on the job site ready to be installed. One glance at the photographs on this page shows you just how simply and quickly G-B Duct can be assembled. There's no pre-assembly work, no scoring, no folding. Sections fit snugly and swiftly together with standard sheet metal fittings and vapor barrier tape. Elbows and T fittings are also easily fabricated with a knife and factory-supplied templates.

Because G-B Duct is made entirely of glass fiber insulation, maximum protection against heat loss or gain and sound absorption are "built-in" features. That means heating and air conditioning units operate more efficiently, keeping the homeowner's utility bills to a minimum. And G-B Duct's uniformly-thick glass fiber walls soak up fan and equipment noises before they're ever heard.

G-B Duct carries an Underwriters' Laboratories label as an air conditioning and heating duct, and therefore meets FHA requirements. G-B Duct is encased in an air-tight, waterproof vapor barrier sleeve for positive protection against sweating and moisture condensation. As permanent as glass itself, it will not rust, corrode, rot, or deteriorate in any way.

For more information, write today.

PREFAB GLASS FIBER DUCT
INSTALLS ALMOST TWICE
AS FAST AS INSULATED METAL DUCTS

G-B Duct provides "built-in"
insulating and noise absorbing benefits

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For more information, write today.

GUSTIN-BACON
204 W. 10th St.
Kansas City, Mo.

INSTALLING 90° TURNS
1—G-B DUCT is easily cut at 45° angle with factory-supplied template or saw and miter. 2—Insert right angle metal elbow into mitered ends of duct. 3—Push tightly together and seal with vapor barrier tape.

INSTALLING STRAIGHT RUNS
Simply insert metal sleeve (above) at joint, butt two sections of duct together and seal with vapor barrier tape.

INSTALLING RUN-OUTS
1—Using factory-supplied template, cut one end of run-out to fit flush against side of main duct. 2—Cut the side of main duct, using sheet metal fitting as a template and insert metal sleeve. 3—Slip run-out onto locked metal sleeve until flush against main duct, then wrap tightly with vapor barrier tape.
Fans designed with the BUILDER in mind...

New Model EK Bar-Brook Attic Fan, practical, economy model for fast, easy installation in homes with low pitched roofs and truss construction. Automatic aluminum shutter assembly fits almost any location—mounts smoothly in ceiling opening. Flanges cover raw edges. 3 blade sizes: 30", 36", 42".

Write for catalog showing full line of Bar-Brook Fans, Shutters, and Year 'Round Air Conditioning Systems.


BAR-BROOK *BREEZE BUILDER* FANS

when the heat's on

SPECIFY THE BOILER YOU CAN BUILD ON

When you need the best... at a price you can build on... specify Hydrotherm! Gas fired Hydrotherm pass through standard doors, take little floor space, are simple and easy to install. Hydrothemed pass through standard doors, take little floor space, are simple and easy to install. Uniquely engineered horizontal boiler sections mean maximum fuel savings. And Hydrothems are guaranteed for 25 years.

WRITE FOR BULLETIN #HY-F100 TODAY!

Also available: Packaged Hydrothems, factory assembled with all hydronic accessories for even greater installation saving... and for heavy duty industrial applications (capacities from 360,000 to 3,600,000 BTU/Hr) ask about Hydrotherm MULTI-TEMPs.
1—Heat and cool any home with this Trane Climate Changer! (Downflow unit for basementless homes shown.) Oil or gas-fired heating units in sizes and types for any home, in any climate. Matched compressor unit located outside.

2—Offer optional cooling! Install just the heating unit now—point out to your customer he may easily add the cooling (lower section) later. Uses same ductwork; and units are matched for easy installation, peak performance.

Trane gives you 4 ways to heat, cool— or both—while holding building costs down!

3—Separate cooling system—not connected with heating system. Fan-coil unit is ideal for use with Trane Baseboard heating or other types of wet heat, or with electric resistance heating. Tucks away in attic, crawl space, basement, utility room.

4—New heat pump heats, cools! Air-to-air type heat pump uses no water; heats and cools entire home. Operates on electricity: no chimney, no flue needed! Same ductwork system delivers heating and cooling throughout entire home.

These new Trane Climate Changer units give you a wide choice of systems for heating, cooling—or both. And it’s quality air conditioning, from Trane, leaders in big building systems. It’s matched equipment, built together to work together. Remember: the name Trane on your heating-cooling system helps mark yours as a quality home because Trane is nationally advertised, nationally recognized for its quality air conditioning equipment. And every Trane system is carefully installed by a selected air conditioning contractor. For complete facts, just call your nearby Trane Sales Office, listed in the Yellow Pages under “Air Conditioning.” Or write Trane, La Crosse, Wisconsin.

For any air condition, turn to

Trane

Manufacturing Engineers of Air Conditioning, Heating, Ventilating and Heat Transfer Equipment.

9 reasons builders are choosing furnaces by

**Williamson**

1. Dependable... No "call-backs"
2. Factory assembled, wired, and fire tested
3. 10 year guarantee to the home buyer
4. Low cost for high quality... Brand name
5. Minimum floor space requirements
6. AGA seal of approval on gas units
7. U.L. Approval available on oil units
8. Beautiful Seal-Tite® cabinet design
9. Designed for Williamson air conditioning

PLUS... a line of distinction...

**THE GASAYER FURNACE**

...an exclusive feature for your exclusive homes.
Indoor-outdoor thermostatic control... two-stage burner automatically modulates to counter-balance changes in outdoor temperature. 20 year guarantee.

For Oil areas... Give consideration to the finest—Williamson Oilsaver for your finest homes.

<table>
<thead>
<tr>
<th>BTU</th>
<th>DEPTH (inches)</th>
<th>HEIGHT (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hi-Boy or Counter-Flow</td>
<td>Lo-Boy</td>
<td>Hi-Boy</td>
</tr>
<tr>
<td>75,000**</td>
<td>25</td>
<td>41</td>
</tr>
<tr>
<td>100,000</td>
<td>29</td>
<td>47</td>
</tr>
<tr>
<td>125,000</td>
<td>32</td>
<td>52</td>
</tr>
<tr>
<td>150,000</td>
<td>35</td>
<td>55</td>
</tr>
<tr>
<td>175,000</td>
<td>40½</td>
<td>-</td>
</tr>
<tr>
<td>200,000</td>
<td>45½</td>
<td>-</td>
</tr>
</tbody>
</table>

*Not available for oil fuel

Available with direct drive blower

THE WILLIAMSON COMPANY
3330-W-16, Madison Rd., Cincinnati 9, Ohio

☐ Please send me full details on your builder-designed furnaces. Also send details on the new...

☐ "Gasayer" furnaces  ☐ "Oilsaver" furnaces

Name: ____________________________
Address: ____________________________
City: ________________________ Zone: _______ State: __________________________

204  AMERICAN BUILDER
**cool an entire house**

for about \( \frac{1}{5} \) the cost of air conditioning

---

R&M-Hunter Package Attic Fan installs in a breeze

2-SPEED OPERATION FOR NIGHT/DAY USE—This low-cost home ventilating system gives cool comfort around the clock, in hot or warm weather. Refreshing breezes are pulled in and hot, sticky air forced out. Operating costs are low, and trouble-free performance is backed by R&M-Hunter's 80 years in manufacturing quality electrical equipment.

---

**R&M-HUNTER ATTIC FANS**

R&M-Hunter makes a complete line of Cooling Fans, Ventilating Fans, and Electric Heating Equipment.

---

Automatic ceiling shutters install easily. A metal frame is screw-fastened and trim covers edges of ceiling opening. No finishing needed.

**FEATURES**
- Two-speed motors (single speed optional)
- Certified air deliveries from 5200 to 10550 cfm.
- Sound-tested ball bearings on fan and motor
- Heavy-duty motor, rubber mounted
- Built-in thermal overload protection
- Fan guaranteed 5 years; motor and shutter, 1 year

---

**MAIL TODAY**

Hunter Division—Robbins & Myers, Inc.
2866 Frisco, Memphis 14, Tennessee

Please send data on the R&M-Hunter Package Attic Fan to:

Name: ____________________________
Company: __________________________
Address: __________________________
CIRCULATING FIREPLACES...

Benefire forms take all the long steps and wrong steps out of fireplace construction — saves hours of time, nearly all material handling and gives a guaranteed, smoke-free result!

CONVENTIONAL FIREPLACES...

The Bennett 10” Throat Damper is sized and shaped to save mason’s time — has full-rated size with increased funneling height that gives better operation. Rotary or poker control.

UNUSUAL FIREPLACES...

Bennett pioneered for projecting corner fireplaces, 2-sided or 3-sided openings — the Benclor Universal Damper provides lower construction costs, efficient smoke-free operation. Reinforced lintel flange will carry any masonry load.

YOUR BUILDING MATERIALS DEALER can help you solve any fireplace construction problem with the complete BENNETT line. And be sure to ask about extra profit opportunities in Flexscreen® Fireplace Curtains and decorative accessories!

YOUR GUARANTEE OF QUALITY ...

BENNETT-IRELAND INC.
Chartered in 1908.
NORTH H. NEW YORK.

(Continued from page 202)
the quality tells . . .
the quality sells . . .

JANITROL
AIR-COOLED
AIR-CONDITIONING

Hallmark of Quality
in Luxury Comfort
Outwardly beautiful and pleasing to the eye, inwardly rugged and powerful, new Janitrol 52 Series provides low-cost central cooling with matchless reliability and efficiency. Here are some of the many ways new Janitrol 52 Series condensing units are demonstrating their excellence...

In Performance... condensing coils have greater area to dissipate more heat and to provide higher efficiency. Operation with outside temperatures as high as 125°F.

In Styling... modern, simple and functional cabinet that will be in the best of taste in any landscape plan. Finished in beautiful, durable, weather-resistant, automotive-type enamel.

In Economy... powerful, top-mounted fan draws in quantities of cooler ground air over the condensing coil, which is shaded from the sun's heat by louvers.

In Quietness... compressor and fan are unusually quiet in operation. Cabinet is acoustically treated with a weatherproof, sound-absorbent material.

In Safety... upflow exhaust protects nearby plants from hot blasts... enclosing grilles safeguard pets and children.

In Service... all components are easily accessible. Service panels may be removed without affecting operation, to make checks while unit is in full operation.

Full A.R.I. certification is your assurance this equipment meets or exceeds standards of the Air Conditioning and Refrigeration Institute. A five-year written warranty backs up your choice.

Feature the nationally advertised, consumer-accepted, Janitrol brand name in your homes, at prices no higher than ordinary "builder model" equipment!

Model home merchandising aids to help you sell your homes (instead of the furnace)! Do a real selling job on your model homes with this exclusive promotion plan. It's sales-action tested and complete... a powerful traffic-builder and point-of-sale tool to help you build sales and profits. See for yourself! Mail coupon today for facts on this terrific sales booster!
ELECTRICAL, WIRING

3-Wire Perimeter Circuiting; Low-Voltage Switching

THREE-WIRE, 220-VOLT PERIMETER WIRING

This system has two basic advantages over conventional wiring. First, it makes two circuits available for every one wire that’s pulled, reducing labor costs. And second, it makes 220-volts available in every room, so that room air conditioners can be installed without the need for additional wiring. Convenience outlets can be wired in either of the two ways shown, and overhead lights can be wired off the perimeter if it is desirable.

LOW-VOLTAGE RELAY SWITCHING

Low-voltage relay systems are most often used where it is desired to operate lights or other electrical devices from several different switches. The master switch system, shown above, is the most common: from one master switch, generally in the master bedroom, as many as nine key circuits in the house can be controlled. Low-voltage wire need not be armored or heavy, can be run at much lower cost than conventional 110-volt wire.
### Load and Circuit Chart

<table>
<thead>
<tr>
<th>Appliance</th>
<th>Typical Connected Watts</th>
<th>Volts</th>
<th>Circuit Breaker or Fuse</th>
<th>Outlets on Circuit</th>
<th>Outlet</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KITCHEN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RANGE</td>
<td>12000</td>
<td>120</td>
<td>3</td>
<td>6</td>
<td>20A.</td>
<td>1 Special Purpose Use of more than one outlet is not recommended.</td>
</tr>
<tr>
<td>OVEN (Built in)</td>
<td>4500</td>
<td>120</td>
<td>3</td>
<td>10</td>
<td>20A.</td>
<td>1 Special Purpose May be direct connected.</td>
</tr>
<tr>
<td>RANGE TOP</td>
<td>6000</td>
<td>120</td>
<td>3</td>
<td>10</td>
<td>30A.</td>
<td>1 Special Purpose May be direct connected.</td>
</tr>
<tr>
<td>RANGE TOP</td>
<td>3300</td>
<td>120</td>
<td>3</td>
<td>12</td>
<td>20A.</td>
<td>1 Special Purpose May be direct connected.</td>
</tr>
<tr>
<td>DISHWASHER</td>
<td>1200</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 Parallel Grounding These appliances may be direct connected on a single circuit. Grounded receptacles required, otherwise.</td>
</tr>
<tr>
<td>WASTE DISPOSER</td>
<td>300</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 Parallel Grounding Heavy-duty appliances regularly used at one location should have a separate circuit. Only one such unit should be attached to a single circuit at the same time.</td>
</tr>
<tr>
<td>BROILER</td>
<td>1500</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 or more Parallel Grounding Heavy-duty appliances regularly used at one location should have a separate circuit. Only one such unit should be attached to a single circuit at the same time.</td>
</tr>
<tr>
<td>FRYER</td>
<td>1300</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 or more Parallel Grounding Heavy-duty appliances regularly used at one location should have a separate circuit. Only one such unit should be attached to a single circuit at the same time.</td>
</tr>
<tr>
<td>COFFEE MAKER</td>
<td>1000</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 or more Parallel Grounding Separate circuit serving only refrigerator and freezer is recommended.</td>
</tr>
<tr>
<td>REFRIGERATOR</td>
<td>300</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 or more Parallel Grounding Separate circuit serving only refrigerator and freezer is recommended.</td>
</tr>
<tr>
<td>FREEZER</td>
<td>350</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 or more Parallel Grounding Separate circuit serving only refrigerator and freezer is recommended.</td>
</tr>
<tr>
<td><strong>LAUNDRY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WASHING MACHINE</td>
<td>1200</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 or more Parallel Grounding Grounding type receptacle required. Separate circuit is recommended.</td>
</tr>
<tr>
<td>DRYER</td>
<td>5000</td>
<td>120</td>
<td>3</td>
<td>10</td>
<td>30A.</td>
<td>1 Special Purpose Appliance may be direct connected — must be grounded.</td>
</tr>
<tr>
<td>IRONER</td>
<td>1650</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 or more Parallel Grounding Consider possible use in other locations.</td>
</tr>
<tr>
<td>HAND IRON</td>
<td>1000</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 or more Parallel Grounding Consider possible use in other locations.</td>
</tr>
<tr>
<td>WATER HEATER</td>
<td>3000</td>
<td></td>
<td></td>
<td>Special Purpose</td>
<td></td>
<td>Consult utility company for load requirements.</td>
</tr>
<tr>
<td><strong>LIVING AREAS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WORKSHOP</td>
<td>1500</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 or more Parallel Grounding Separate circuit recommended.</td>
</tr>
<tr>
<td>PORTABLE HEATER</td>
<td>1300</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 Parallel Should not be connected to circuit serving other heavy-duty loads.</td>
</tr>
<tr>
<td>TELEVISION</td>
<td>300</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 or more Parallel Should not be connected to circuit serving appli-ances.</td>
</tr>
<tr>
<td>PORTABLE LIGHTING</td>
<td>1200</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 or more Parallel Provide one circuit for each 500 sq. ft. Divided receptacle may be switch controlled.</td>
</tr>
<tr>
<td><strong>FIXED UTILITIES</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>FIXED LIGHTING</td>
<td>1200</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 or more Parallel Provide at least one circuit for each 1200 watts of fixed lighting.</td>
</tr>
<tr>
<td>AIR CONDITIONER ¾ hp</td>
<td>1200</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 Parallel Grounding Consider 4 kw 3-wire circuits to all window or console-type air conditioners. Outlets may then be adopted to individual 120- or 240-volt machines. Connection to general purpose or appliance circuits is not recommended.</td>
</tr>
<tr>
<td>CENTRAL AIR CONDITIONER</td>
<td>5000</td>
<td>240</td>
<td>Special Purpose</td>
<td></td>
<td></td>
<td>Consult manufacturer for recommended connections.</td>
</tr>
<tr>
<td>HEAT PUMP</td>
<td>*14000</td>
<td>240</td>
<td>Special Purpose</td>
<td></td>
<td></td>
<td>Consult manufacturer for recommended connections.</td>
</tr>
<tr>
<td>SUMP PUMP</td>
<td>300</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 or more Parallel Grounding May be direct connected.</td>
</tr>
<tr>
<td>HEATING PLANT</td>
<td>600</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 Parallel Grounding Direct connected. Some local codes require sepa- rate circuit.</td>
</tr>
<tr>
<td>FIXED BATHROOM HEATER</td>
<td>1500</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 Parallel Grounding May be direct connected. Individual circuit is recommended.</td>
</tr>
<tr>
<td>ATTIC FAN</td>
<td>300</td>
<td>120</td>
<td>2</td>
<td>12</td>
<td>20A.</td>
<td>1 or more Parallel Grounding May be direct connected.</td>
</tr>
</tbody>
</table>

*Maximum connected load (range varies from 6000 to 14000 depending on season).
How to Light-Plan a House

GENERAL: All incandescent bulbs, except the low-wattage decorative types, must be shielded by a diffusing material. A minimum of one permanent lighting unit per room must be on switch control at room entrance or entrances when they are more than ten feet apart.

For rooms 125 square feet and below, required is either: a) A single lighting fixture 12-15 in. in diameter, holding one 100-watt bulb or three 40-watt bulbs, b) 6 feet of structural lighting such as a cornice, bracket or valance.

For room sizes between 125 and 225 square feet, required is either: a) A 15-17 in. fixture holding one 150-watt bulb or four 40-watt bulbs, or b) 8-12 ft. of structural lighting.

For rooms over 225 square feet, 16-20 ft. of structural lighting is required. In all cases, a combination of structural and ceiling fixture lighting is desirable.

LIVING ROOM, FAMILY ROOM:

For rooms 125 square feet and below, required is either: a) A single lighting fixture 12-15 in. in diameter, holding one 100-watt bulb or three 40-watt bulbs, b) 6 feet of structural lighting such as a cornice, bracket or valance.

For room sizes between 125 and 225 square feet, required is either: a) A 15-17 in. fixture holding one 150-watt bulb or four 40-watt bulbs, or b) 8-12 ft. of structural lighting.

DINING AREA: Required is ceiling fixture, suspended type preferred, centered above spot for dining table, incorporating at least 150 watts in one or more bulbs. If possible, one foot of structural lighting for every 12 square feet of room area should also be used.

KITCHEN:

For general lighting, there should be one ceiling fixture, a minimum 12 inches in diameter, to house one 150-watt, two 75-watt, or three 60-watt bulbs. If fluorescent type, use two 40-watt, four 20-watt, or two circline fluorescent lamps. For local lighting, above sink or in front of window use additional ceiling fixture as above, or one recessed fixture in soffit containing a minimum of 150 watts.

BEDROOMS: For bedrooms 125 square feet and below, use either: a) One ceiling fixture with a 12-15 in. diameter containing one 100-watt bulb, or b) three 40-watt bulbs, and 6 feet of structural lighting. For bedrooms between 125 and 225 square feet, use 15-17 in. fixture containing one 150-watt or four 40-watt bulbs, or 8-12 ft. of structural lighting.

A combination of both is most desirable.

BATHROOM AND LAVATORY:

One fixture located at each side of grooming area and one fixture located on ceiling or wall over grooming area. Each of these should accommodate one 20-watt fluorescent, two 40-watt incandescent, or one 60-watt incandescent. For wall-to-wall mirrors, a row of shielded fluorescent tubes should be extended across full width of mirror.

LAUNDRY, UTILITY, WORKSHOP, BASEMENT: A minimum of one ceiling or wall fixture over each principal work area. Ceiling fixtures should be a minimum 12 in. in diameter carrying a minimum 150 watts in bulb or bulbs. For fluorescents: two 40-watt, four 20-watt, or two circline fluorescent lamps. Wall brackets along work areas should contain one 20-watt fluorescent, or two 40-watt incandescent, for each four feet of area to be covered.

HALLS, PASSAGEWAYS:

For each hall or passageway, use a minimum of one ceiling fixture, wall bracket, or recessed fixture accommodating a 60-watt bulb for every 10 feet of passageway.

OUTSIDE THE RESIDENCE: A minimum of one or more fixtures at each entrance of the residence.

ACCESSIBLE UNFINISHED STORAGE AREAS: A minimum of one fixture socket or wall bracket for each 200 square feet of floor space.

CLOTHES CLOSETS: A minimum one-lamp receptacle or fixture for each full-door closet.

GARAGE OR CARPORT: A minimum of one lamp receptacle or fixture using one 100-watt bulb at both sides of each parking area.

Courtesy: American Home Lighting Institute, Inc.
**ELECTRICAL, WIRING**

Selected Built-in Lighting Details

**VALANCE**
Shown here with side-mounted channel. Tube should be far enough from wall to prevent drapery from shielding downward light. Provides both ceiling- and wall-lighting.

**CORNICE**
Provides wall light only. Faceboard joins ceiling. Channel is ceiling-mounted. Recommended for low-ceiling rooms, or where window head is close to ceiling.

**COVE**
Emits light horizontally and upward unless shield is translucent (luminous cove). Should be either luminous or low enough to flood upper wall—otherwise too inefficient for home lighting applications.

**BRACKET**
Like valance, but centerline of faceboard is on same level with tube, should be closer to wall. Light emission is both upward and down.

**RECESSED DOWNLIGHT**
Technically a fixture, but its inclusion in home should be planned prior to rough wiring. Using reflector-type bulb, adds highlights and drama to interior design.

**SOFFIT**
Underside of beam or furred-down section containing recessed luminous panel. Chiefly for local lighting, but several soffit panels could provide adequate general illumination.

**CONCENTRIC RING LOUVER**

**CANOPY-OVERHANG**
Like luminous cove; but downward, diffused light is primary purpose of structure. Uniform brightness of diffusion panel would normally require at least two rows of tubes.

**SUSPENDED CEILING**
Either diffusion or opaque material suspended to form light plenum. Plastic or glass left open (right) would afford better ventilation, but could be harder to shield properly.

**TROFFER**
A fixture that provides a "pre-assembled" recessed panel including reflector. Generally narrow, made to permit end-to-end, continuous runs.

**EDGELIGHTING**
Arrangement of plastic or glass panel to transmit light edgewise — invisibly except where decorative cuts, ripples, or flutes in surface re-direct light, appear as its source.
The Stereophonic Home...
Rangaire’s way to faster sales in ’61!

Here's a completely new sales sparking promotional package to enhance the sales appeal of every home you build . . . and at an amazingly low cost to you.

Your selling job will be so much easier when you feature the Rangaire Stereophonic Radio Intercom System in every home you build. And Rangaire's Stereophonic Home promotional package helps you build a powerful sales promotion right in your own community.

Your prospects will be intrigued with the magnificent styling, the satin smooth hardwood cabinets and the unsurpassed tonal resonance of the Rangaire Stereo Radio Intercom System. A simple demonstration virtually turns any home into a concert hall . . . a touch of elegance that sets your home apart in your prospects' eyes. The price . . . Rangaire's low cost will surprise you . . . it's practical for even your lower budget homes. Better your sales in ’61 . . . Rangaire has the product, the price and the promotion to help you profit. Return coupon for complete details today.
The most important wiring devices for any installation...from LEVITON

Flush Tumbler Switches. Over 60 cataloged types are available, including 15 and 20 Amp AC Quiet, 10 and 20 Amp T-Rated AC-DC, and 10 Amp residential switches...backed by Leviton's reputation for superior quality at sensible prices.

Combination Line. Over 30 different cataloged combination duplex devices available. Quiet AC Switches combined with Parallel or U-Ground outlets, Pilot Light, or Duplex Switches in separate or common circuits. AC-DC switches in the same combinations.

Single and Duplex Receptacles. Over 40 different cataloged types. Single and Duplex U-Ground, T-Stotted, Tandem and Parallel, double contact, back and side wired, and Quickwire for heavy duty and residential uses.

Lev-O-Lock Devices. 2, 3, and 4 wire single and duplex receptacles, connectors, caps, and motor plug outlets. Midget 2 and 3 wire caps and cord connectors. For safety, dependability, economy.

...when it's important for you to make a choice, you know there's a Leviton wiring device to fit your need. Ask your Leviton Distributor today for your Contractor's ABC. Or write to Leviton Manufacturing Company, Brooklyn 22, New York.

Your best jobs are done with...
Telephone man Robert Dahill checks position of telephone-wired kitchen outlet with builder Arthur P. Aaron.

Breezeways of A & A homes come with outlets for permanent or portable telephones.

"We're always looking for something that will help sell houses, and concealed telephone wiring does"

SAYS ARTHUR P. AARON, A & A BUILDERS, INC., AVON, CONNECTICUT

Arthur P. Aaron was the first contractor in Connecticut to telephone-plan his homes with concealed telephone wiring. "For the nominal cost, concealed wiring is definitely a good investment," says Mr. Aaron. "We're always looking for something that will help sell homes, and concealed wiring does just that."

Mr. Aaron has constructed homes from $20,000 to $35,000, all with concealed telephone wiring. He's also planning to pre-wire homes of $15,000 and $16,000 which he expects to build in Avon and Norwich this year.

"I mention concealed telephone wiring in my newspaper advertising, and I instruct my salespeople to point out this feature in our model homes," says Mr. Aaron. "It's an extra selling point, it's practical, and the other fellow may not have it."

BELL TELEPHONE SYSTEM
Vina-Lux® FLOORS satisfy champagne tastes on beer budgets

Vina-Lux vinyl asbestos tile floors help you sell those tough prospects who will have "nothing but the best"... on a budget. Here's how: Vina-Lux floors come in a wide selection of coordinated colors and styles to meet the most discriminate taste. Yet they cost far less than other types of vinyl flooring.

Equally important, Vina-Lux helps you build more house for less money, because it installs faster and easier on or below grade over concrete slab - the modern, low-cost construction method - or over wood or plywood sub-floors.

Compare Vina-Lux for yourself – let us send you free samples, color charts, model home merchandising kit and idea-filled "Vina-Lux Floor Styling Handbook."

Write today!

AZROCK FLOOR PRODUCTS DIVISION
Specialists in the manufacture of vinyl asbestos tile and asphalt tile flooring
UVALDE ROCK ASPHALT COMPANY • 523A FROST BANK BLDG. • SAN ANTONIO, TEXAS

Over 50 colors and a style for every builder requirement
### FLOOR, WALL, CEILING MATERIAL

#### Hardwood Flooring Data

"Nominal" is the size designation used by the trade, but it is not always the actual size. Sometimes the actual thickness of hardwood flooring is 1/32-inch less than the so-called nominal size.

#### STANDARD SIZES, COUNTS and WEIGHTS

"Actual" is the mill size for thickness and face width, excluding tongue width. "Counted" size determines the board feet in a shipment. Pieces less than 1 inch in thickness are considered to be 1 in.

<table>
<thead>
<tr>
<th>OAK</th>
<th>Nominal</th>
<th>Actual</th>
<th>Counted</th>
<th>Weights M Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TONGUED AND GROOVED-END MATCHED</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\frac{7}{8}&quot; \times 2\frac{3}{4}&quot;</td>
<td>$\frac{7}{8}&quot; \times 2\frac{3}{4}&quot;</td>
<td>38 x 2&quot;</td>
<td>1&quot; x 4&quot;</td>
<td>2300 lbs.</td>
</tr>
<tr>
<td>$\frac{3}{4}&quot; \times 2\frac{1}{4}&quot;</td>
<td>$\frac{3}{4}&quot; \times 2\frac{1}{4}&quot;</td>
<td>38 x 2&quot;</td>
<td>1&quot; x 3&quot;</td>
<td>2100 lbs.</td>
</tr>
<tr>
<td>$\frac{3}{4}&quot; \times 2&quot;</td>
<td>$\frac{3}{4}&quot; \times 2&quot;</td>
<td>38 x 2&quot;</td>
<td>1&quot; x 2\frac{1}{4}&quot;</td>
<td>1900 lbs.</td>
</tr>
<tr>
<td>$\frac{3}{4}&quot; \times 2\frac{1}{4}&quot;</td>
<td>$\frac{3}{4}&quot; \times 2\frac{1}{4}&quot;</td>
<td>38 x 2&quot;</td>
<td>1&quot; x 2\frac{1}{4}&quot;</td>
<td>1000 lbs.</td>
</tr>
<tr>
<td>$\frac{7}{8}&quot; \times 2&quot;</td>
<td>$\frac{7}{8}&quot; \times 2&quot;</td>
<td>38 x 2&quot;</td>
<td>1&quot; x 2&quot;</td>
<td>1300 lbs.</td>
</tr>
<tr>
<td>$\frac{7}{8}&quot; \times 2\frac{1}{4}&quot;</td>
<td>$\frac{7}{8}&quot; \times 2\frac{1}{4}&quot;</td>
<td>38 x 2&quot;</td>
<td>1&quot; x 2\frac{1}{4}&quot;</td>
<td>1000 lbs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OAK</th>
<th>Nominal</th>
<th>Actual</th>
<th>Counted</th>
<th>Weights M Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQUARE EDGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\frac{7}{8}&quot; \times 2&quot;</td>
<td>$\frac{7}{8}&quot; \times 2&quot;</td>
<td>face count</td>
<td>1200 lbs.</td>
<td></td>
</tr>
<tr>
<td>$\frac{3}{4}&quot; \times 1\frac{1}{4}&quot;</td>
<td>$\frac{3}{4}&quot; \times 1\frac{1}{4}&quot;</td>
<td>face count</td>
<td>1200 lbs.</td>
<td></td>
</tr>
</tbody>
</table>

### ESTIMATING FLOORING

Figures below are board feet of various sizes of flooring required to cover square feet of floor space shown at left.

<table>
<thead>
<tr>
<th>Square Ft. Floor</th>
<th>3% x</th>
<th>3% x</th>
<th>3% x</th>
<th>3% x</th>
<th>3% x</th>
<th>3% x</th>
<th>3% x</th>
<th>3% x</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>3% x</td>
<td>3% x</td>
<td>3% x</td>
<td>3% x</td>
<td>3% x</td>
<td>3% x</td>
<td>3% x</td>
<td>3% x</td>
</tr>
<tr>
<td>Square Ft. Floor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>13</td>
<td>14</td>
<td>16</td>
<td>13</td>
<td>14</td>
<td>13</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>20</td>
<td>26</td>
<td>28</td>
<td>31</td>
<td>26</td>
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<td>28</td>
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<tr>
<td>30</td>
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<td>39</td>
<td>42</td>
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<tr>
<td>40</td>
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<td>78</td>
<td>65</td>
<td>70</td>
<td>65</td>
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</tr>
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<td>60</td>
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<td>83</td>
<td>93</td>
<td>78</td>
<td>83</td>
<td>78</td>
<td>83</td>
<td>78</td>
</tr>
<tr>
<td>70</td>
<td>91</td>
<td>97</td>
<td>109</td>
<td>91</td>
<td>97</td>
<td>91</td>
<td>97</td>
<td>91</td>
</tr>
<tr>
<td>80</td>
<td>104</td>
<td>111</td>
<td>124</td>
<td>104</td>
<td>111</td>
<td>104</td>
<td>111</td>
<td>104</td>
</tr>
<tr>
<td>90</td>
<td>117</td>
<td>125</td>
<td>140</td>
<td>117</td>
<td>125</td>
<td>117</td>
<td>125</td>
<td>117</td>
</tr>
<tr>
<td>100</td>
<td>129</td>
<td>139</td>
<td>155</td>
<td>130</td>
<td>139</td>
<td>130</td>
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<td>190</td>
<td>157</td>
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<td>170</td>
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</tr>
<tr>
<td>140</td>
<td>186</td>
<td>200</td>
<td>220</td>
<td>186</td>
<td>200</td>
<td>186</td>
<td>200</td>
<td>186</td>
</tr>
</tbody>
</table>

### COMPUTING FLOORING NEEDS

To determine the board feet of flooring needed to cover a given space, first find the area in square feet then add it to the percentage of that figure which applies to the size flooring to be used, as indicated below. The additions provide an allowance for side-matching plus an additional 5% for end-matching and normal waste.

<table>
<thead>
<tr>
<th>Size of flooring used</th>
<th>%\ 5 3% x</th>
<th>%\ 3% x</th>
<th>%\ 3% x</th>
<th>%\ 3% x</th>
<th>%\ 3% x</th>
<th>%\ 3% x</th>
<th>%\ 3% x</th>
<th>%\ 3% x</th>
</tr>
</thead>
<tbody>
<tr>
<td>8d</td>
<td>6d</td>
<td>8d</td>
<td>5d</td>
<td>5d</td>
<td>4d</td>
<td>4d</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nail spacing</td>
<td>10-12 in.</td>
<td>10-12 in.</td>
<td>10-12 in.</td>
<td>10-12 in.</td>
<td>10-12 in.</td>
<td>10-12 in.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. pieces per bundle</td>
<td>8</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To obtain R.M. from</td>
<td>8</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bundle multiply by</td>
<td>2% 3% x</td>
<td>2% 3% x</td>
<td>3% x</td>
<td>3% x</td>
<td>3% x</td>
<td>3% x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### NAIL SCHEDULE — OAK FLOORING

Tongued-and-grooved flooring. To be blind-nailed.

<table>
<thead>
<tr>
<th>Type, Size, Spacing of Nails</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flooring</td>
</tr>
<tr>
<td>Dimen., In.</td>
</tr>
<tr>
<td>Bright casing nail — 4d wire or cut nail, or screw nail, 8 in. apart. Wood subfloor required.</td>
</tr>
<tr>
<td>$\frac{3}{4}&quot; x 2$</td>
</tr>
<tr>
<td>7d or 8d screw type or cut steel nail. p 10-12 in. apart.</td>
</tr>
<tr>
<td>$\frac{3}{4}&quot; x 2$</td>
</tr>
<tr>
<td>5d screw type or cut steel or wire nail. 10 in. apart. Wood subfloor required.</td>
</tr>
<tr>
<td>$\frac{3}{4}&quot; x 2$</td>
</tr>
</tbody>
</table>

### SUGGESTIONS

- To obtain flooring, multiply the square footage by the factor given above.
- If steel wire flooring nail is used, it should be 8d, preferably cement coated. Newly developed machine-driven barbed fasteners of the size recommended by the manufacturer are acceptable.

---

**NOTE:** Oak, Beech, Birch, Hard Maple and Pecan Flooring are bundled by averaging the lengths. A bundle may include pieces from 6 in. under to 6 in. over the nominal length of the bundle. No piece shorter than 9 in. admitted.

The percentages under 4 ft. referred to in the grading rules on this page apply on total footage in any one shipment of the item.

---

**APRIL 1961**

---

**Courtesy National Oak Flooring Mfrs. Assn.**
# FLOOR, WALL, CEILING MATERIAL

## Resilient Flooring Data

<table>
<thead>
<tr>
<th>TYPE OF FLOORING</th>
<th>ASPHALT GREASE-PROOF</th>
<th>SEMI-FLEXIBLE ASBESTOS</th>
<th>VINYL BACKED TYPES</th>
<th>FLEXIBLE HOMOGENEOUS</th>
<th>RUBBER SHEET</th>
<th>LINOLEUM SHEET</th>
<th>CORK SHEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORM AVAILABLE</td>
<td>TILE</td>
<td>TILE</td>
<td>TLE</td>
<td>SHEET</td>
<td>SHEET</td>
<td>SHEET</td>
<td>SHEET</td>
</tr>
</tbody>
</table>

### DIMENSIONS*

<table>
<thead>
<tr>
<th>Size or Width, Inches</th>
<th>Thickness, Inches</th>
<th>Sizes Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 x 9</td>
<td>0.125</td>
<td>9 x 9</td>
</tr>
<tr>
<td>0.1075</td>
<td>0.125</td>
<td>0.625</td>
</tr>
<tr>
<td>0.0625</td>
<td>0.080</td>
<td>0.080</td>
</tr>
<tr>
<td>0.09375</td>
<td>0.125</td>
<td>0.09375</td>
</tr>
</tbody>
</table>

### COST

<table>
<thead>
<tr>
<th>Cost</th>
<th>Approximate Cost</th>
<th>Per Square Foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.125&quot;</td>
<td>$0.0625&quot;</td>
<td>$0.09375&quot;</td>
</tr>
<tr>
<td>$0.125&quot;</td>
<td>$0.0625&quot;</td>
<td>$0.09375&quot;</td>
</tr>
<tr>
<td>$0.045&quot;</td>
<td>$0.0375&quot;</td>
<td>$0.045&quot;</td>
</tr>
<tr>
<td>$0.080&quot;</td>
<td>$0.050&quot;</td>
<td>$0.080&quot;</td>
</tr>
<tr>
<td>$0.09375&quot;</td>
<td>$0.075&quot;</td>
<td>$0.09375&quot;</td>
</tr>
</tbody>
</table>

### USE LEVEL**

- **Suspended:** Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes
- **On Grade:** Yes, Yes, No, Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes
- **Below Grade:** Yes, Yes, No, Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes

### PHYSICAL CHARACTERISTICS

- **Thermal Conductivity:** 2.1 (Fair) 2.1 (Fair) 2.1 (Fair) 2.1 (Fair) 2.1 (Fair) 2.1 (Fair) 2.1 (Fair) 2.1 (Fair) 2.1 (Fair) 2.1 (Fair) 2.1 (Fair) 2.1 (Fair) 2.1 (Fair) 2.1 (Fair)
- **Relative Maximum Static Load Without Permanent Indentation Expressed in Lbs./Sq. In:** 250 (Fair) 250 (Fair) 250 (Fair) 250 (Fair) 250 (Fair) 250 (Fair) 250 (Fair) 250 (Fair) 250 (Fair) 250 (Fair) 250 (Fair) 250 (Fair) 250 (Fair) 250 (Fair)
- **Under Foot Comfort:** Fair, Fair, Good, Good, Good, Good, Good, Good, Good, Good, Good, Good, Good, Good
- **Apparent Warmth to Touch:** Fair, Fair, Good, Good, Good, Good, Good, Good, Good, Good, Good, Good, Good, Good
- **Quietness (Noise Level):** Fair, Fair, Good, Good, Good, Good, Good, Good, Very Good, Very Good, Good, Good, Good, Very Good
- **Surface Alkaline Resistance:** Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent
- **Grease Resistance:** Poor, Very Good, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent
- **Ease of Maintenance:** Fair, Very Good, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent, Excellent

### Slipperiness

- Varies with finish and waxing, normally all are slip-resistant when dry.

### Impact Resistance

- All are resistant to shattering, splitting, cracking or other damage under normal impact conditions.

### Light Reflectivity

- Varies from almost zero to 45%, depending on color, surface texture and finish—consult manufacturer.

### Durability

- All show excellent durability under use conditions for which they are individually suitable when installed and maintained as recommended by manufacturer.

---

*Nominal commercial dimensions only are shown—other sizes, shapes, thicknesses and widths vary with manufacturer.

**When installed in accordance with the specific precautions and recommendations of the manufacturer.

Material Courtesy Building Research Institute
GLAZED CERAMIC INTERIOR TILE

Nominal thickness of Glazed Interior Tile shown in drawings is \( \frac{3}{16} \)". Tiles 6" x 9" x \( \frac{3}{16} \)" and 6" x 12" x \( \frac{5}{16} \)" are available from some manufacturers. Nominal sizes shown are subject to slight variation. Also available from most manufacturers: these shapes in a bright glaze, a matte glaze and a special purpose glaze. The shapes in black are those most frequently used and those shaded are available when required.

QUARRY TILE

Basic shapes for flat Quarries are shown in black. For the trimmer shapes shown there are complementary corner pieces available. Consult the Tile Contractor if other shapes than those illustrated are required for special conditions. Dimensions shown on the drawings are nominal . . . some slight variation is to be expected in actual measurements. Shapes other than the basic ones shown are available from some manufacturers.

UNGLAZED CERAMIC MOSAIC TILE

Basic shapes are shown in black. For the coves and caps there are the complementary corner pieces available. Consult the Tile Contractor if other shapes are required for special conditions. The sizes shown are nominal and will have a slight tolerance.

PAVER TILE

The basic shapes for flat Paver Tile are shown in black. For the coves and caps there are the complementary corner pieces available. Consult the Tile Contractor if other shapes are required for special conditions. The sizes shown are nominal and will have a slight tolerance.

CERAMIC MOSAIC

The series of sizes of Ceramic Mosaic is usually referred to as the 2" or the 1-9/16" series. Actually there are slight variations, according to the practice of manufacturers as follows: C = 2", 2-3/16", 1-9/16" or 1-15/16". Basic shapes are shown in black on the drawing. Pentagon and Octagon shapes are made by some manufacturers. For both Coves and Caps there are complementary corner pieces available.

NOTE: In the industry today, ceramic tile is set (1) with cement mortar; (2) with organic adhesives, and (3) with cement mortar —using a newly-developed thin-setting bed method. Information on all three methods may be obtained from the Tile Council of America, Inc., 800 Second Ave., New York 17, N. Y.

Courtesy Tile Council of America
FLOOR, WALL, CEILING MATERIAL
Plastic Tile Standards

HALMARK
Polyethylene plastic wall tile which carry this hallmark indicate compliance with Commercial Standard 168-50 which includes the following conditions:

DIMENSIONAL TOLERANCES—The face sizes of tiles shall not vary one from the other, in any comparable dimension, more than a negative tolerance of 1/10 of 1% or 0.005 in., whichever is greater, and by a positive tolerance of 2/10 of 1% or 0.010 in., whichever is greater.

THICKNESS—The thickness of the plastic in tile shall be greater than 0.062 in. The lip on the tile shall extend at least 0.033 in. beyond the back of the tile.

HOW TO USE THIS TABLE

This table can be valuable to the designer and estimator in several ways:

1. In designing or layout, the number of courses of tile can be ascertained, for any required height or length of wall. Example: Length of wall in lineal feet—17'-0"

2. Estimating tile quantities for a given area. Example: Length of wall in lineal feet—17'-0"

3. Estimating the number of pieces of 4½" cap, base or feature strip required for lineal feet of wall. Example: Assume total lineal feet of wall to be tiled to be 48 feet.

Consulting the table it will be found that 34 pieces are needed for 12 feet. Therefore 34 x 3 = 102 tiles are required.

Courtesy The Society of Plastics Industry, Inc.
There are, of course, very definite acoustical properties in the tiles shown here, and, as you might expect, the amount of sound absorption varies with the material, thickness, density, etc. of the product. This variance is measured in N.R.C., or Noise Reduction Coefficient. We mention this because you might be led to compare the materials and products strictly on their N.R.C. rating. This would be a mistake, since the variance is seldom one that the human ear can discern. This is particularly true in the home.

When choosing tile, it is best to take all factors into consideration. This would include: appearance, light reflection, thickness, moisture resistance, maintenance, insulation value, ease of installation, flame resistance and cost.

The standard size of this tile is 12"x12", although nearly all are available with other dimensions and with a variety of thicknesses. Some data on the types shown above:

**Cellulose-Fiber Tile:** Generally lower in price than other units; subject to some dimensional changes due to moisture content; also available with a flame-resistant finish; can be made termite, fungus and dry-rot proof by special manufacturing processes.

**Mineral Tile:** Are classified Class A Incombustible; are slightly more expensive than cellulose-fiber; are used often when special artistically decorative effects are desired.

**Perforated Metal Tile:** Is used commercially most of the time; has a mineral wool pad in back of metal; has highest acoustical efficiency of commercial acoustical tile; is used frequently where long-range economy of maintenance is important.

**Glass-Fiber Tile:** Also has an incombustible rating; has good moisture resistance; some tiles have thin plastic membrane covering which makes them washable.

**Perforated Asbestos Tile:** Especially important for its moisture resistant qualities; has high acoustical qualities as well; often used in radio studios, etc., where sound absorption is important.

**Cementing:** When cementing on plaster, be sure plaster is sized or properly painted (in new or remodeling work). Can also cement to gypsum board. A dab of cement at each corner is all that is necessary. Check with manufacturer for proper adhesive.

**Nailing:** Wood furring strips, 1" x 3" may be used as a base for nailing or stapling where surface of ceiling is rough. On new work, it is often possible to nail strips directly onto bottom of joists. Nails should be driven beyond surface of tile with nail set; or by mechanical means.

**Screwing:** This method is generally used when floor above will be subjected to vibration. Material can be screwed to furring strips or to gypsum board backing. Finished level of ceiling is governed by care and accuracy with which gypsum board is installed.

NOTE: A fourth method—mechanical suspension—is often used industrially and commercially where special conditions prevail. For information, consult your manufacturer.
A recent development in the use of plywood is the 1%/" thick plywood panel (4'x8') which spans floor joists spaced 48'" o.c. This panel is known as the 2-4-1 plywood, developed by the Douglas Fir Plywood Association.

The panel is applied by placing the 8' lengths across two 48" spans, with 2x4 blocking beneath the edges (Fig. 1). It is fastened down with "10d common ring shank or helically-threaded nails spaced 6" o.c.

Suggested maximum spans for No. 2 Douglas Fir or Southern Pine girders are 8', 11', and 14' for girder sizes of 4x6, 4x8, and 4x10, respectively.

The 2-4-1 plywood floor panel is unique in that a load capacity of 100 lbs. per sq. ft. at a deflection of 1/360th of span is possible without exceeding the allowable fiber stress.

This flooring system is primarily a subfloor and underlay for tile, carpeting, linooleum or other nonstructural flooring.

The partial plan and Section AA shown in Fig. 2 illustrates how the panels are fastened across the girders. The 4'x4' panels are used in conjunction with the 4'x8' panels so that the end seams are staggered.

Details BB show alternate methods of the girder setting at the walls. Detail BB1, for example, indicates a pocket in the foundation which receives the girder and with the 2"x6" sill notched for girder clearances.

On Detail BB2 is shown a continuous foundation ledge on which the girder is set. Note the 2x4 blocking, free of sill, fastened between the girders. The blocking provides the base for nailing the 2-4-1 panel along its edge.

Detail CC illustrates two panels joined directly over the center line of the 2x4 blocking.

Detail DD indicates a 4x4 post anchored to an inside concrete column and supporting the girder above.

Detail EE indicates a 2x6 header taking the place of the girder. The header is set on the ledge of the foundation wall.

Courtesy: Douglas Fir Plywood Association
### FLOOR, WALL, CEILING MATERIAL

**Hardboards: Types and Nailing Specifications**

<table>
<thead>
<tr>
<th>Application</th>
<th>Type of Hardboard</th>
<th>Maximum Open Spacing</th>
<th>Thickness</th>
<th>Intermediate Supports</th>
<th>Around Edges</th>
<th>Size &amp; Type of Nail per Pound</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERIOR WALLS AND CEILINGS</td>
<td>Standard Hardboard and Tempered Hardboard</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>Use any of these nails for these hardboard applications.</td>
</tr>
<tr>
<td></td>
<td>Low-Density Hardboard</td>
<td>24&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; Casing Nails 635</td>
</tr>
<tr>
<td></td>
<td>Leather Textured or Tile Patterned Hardboard</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; Casing Nails 475</td>
</tr>
<tr>
<td></td>
<td>Wood Grain Embossed Hardboard</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; Finishing Nails 805</td>
</tr>
<tr>
<td></td>
<td>Wood Grain Printed Hardboard</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; Counter Sunk Nails 700</td>
</tr>
<tr>
<td></td>
<td>Grooved Hardboard 4&quot;, 8&quot; or Random</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; 18 ga. Brads 635</td>
</tr>
<tr>
<td></td>
<td>Scorred Hardboard Tempered S25</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>½&quot; 18 ga. Brads 1650</td>
</tr>
<tr>
<td></td>
<td>Perforated Hardboard</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>½&quot; Ring-grooved Nails (Flat Head) 535</td>
</tr>
<tr>
<td></td>
<td>Leather Textured Solid</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; Finishing Nails 585</td>
</tr>
<tr>
<td></td>
<td>Wood Grain Embossed Hardboard</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; Casing Nails 635</td>
</tr>
<tr>
<td></td>
<td>Wood Grain Printed Hardboard</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; Casing Nails 475</td>
</tr>
<tr>
<td></td>
<td>Grooved Hardboard 4&quot;, 8&quot; or Random</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; Finishing Nails 805</td>
</tr>
<tr>
<td></td>
<td>Scorred Hardboard Tempered S25</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; Counter Sunk Nails 700</td>
</tr>
<tr>
<td></td>
<td>Perforated Hardboard</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; 18 ga. Brads 635</td>
</tr>
<tr>
<td></td>
<td>Leather Textured Solid</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; Casing Nails 475</td>
</tr>
<tr>
<td></td>
<td>Wood Grain Embossed Hardboard</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; Casing Nails 635</td>
</tr>
<tr>
<td></td>
<td>Wood Grain Printed Hardboard</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; Casing Nails 475</td>
</tr>
<tr>
<td></td>
<td>Grooved Hardboard 4&quot;, 8&quot; or Random</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; Finishing Nails 805</td>
</tr>
<tr>
<td></td>
<td>Scorred Hardboard Tempered S25</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; Counter Sunk Nails 700</td>
</tr>
<tr>
<td></td>
<td>Perforated Hardboard</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>1½&quot; 18 ga. Brads 635</td>
</tr>
<tr>
<td>UNDERLAYMENT</td>
<td>Underlayment Hardboard</td>
<td>215&quot;</td>
<td>6&quot; thru body</td>
<td>6&quot;</td>
<td>1½&quot; Drive Screws (Flat Head) 630</td>
<td></td>
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<tr>
<td>FINISH FLOORING</td>
<td>Tempered Hardboard</td>
<td>¾&quot;</td>
<td>12&quot; thru body</td>
<td>6&quot;</td>
<td>1½&quot; Coated Casing Nails 635</td>
<td></td>
</tr>
<tr>
<td>PANEL SIDING</td>
<td>(With or without Sheathing)</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>Use either nail for Panel Siding</td>
</tr>
<tr>
<td></td>
<td>Tempered Hardboard</td>
<td>16&quot; or 24&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>2½&quot; Galvanized Siding Nail 225</td>
</tr>
<tr>
<td></td>
<td>Grooved Hardboard</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>2½&quot; Galvanized Box Nail 220</td>
</tr>
<tr>
<td>LAP SIDING</td>
<td>(With or without Sheathing)</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>Plain Lap 2½&quot; Galvanized Siding Nails 225</td>
</tr>
<tr>
<td></td>
<td>Tempered Hardboard 12&quot;, 16&quot; or 24&quot; Wide</td>
<td>16&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>2½&quot; Galvanized Box Nails 220</td>
</tr>
<tr>
<td></td>
<td>Grooved Hardboard</td>
<td>16&quot; or 24&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>3&quot; Nails thru Shadow Strip 90</td>
</tr>
<tr>
<td></td>
<td>Thick Hardboard</td>
<td>16&quot; or 24&quot;</td>
<td>¾&quot;</td>
<td>8&quot; thru body</td>
<td>4&quot;</td>
<td>Special 2½&quot; galvanized nail recommended 146</td>
</tr>
<tr>
<td>CONCRETE FORMS</td>
<td>Concrete Form Hardboard</td>
<td>¾&quot;</td>
<td>8&quot; to 12&quot;</td>
<td>4&quot;</td>
<td>1½&quot; Coated Casing Nails 635</td>
<td></td>
</tr>
</tbody>
</table>

*Interlocking Metal Corners and Joint Fasteners Available*
PLANNING FOR SOUND CONTROL

Determining how best to sound condition a building will often require the services of a sound engineer. He may be particularly needed when problems of acoustics are concerned with churches, schools and larger institutional buildings. But there are many things that you, as a home builder, can do to cut down the noise problem in your houses. Perhaps the most basic approach to the problem is a builder's awareness of the necessity to plan for sound insulation before he builds. This plan for sound control takes three forms: 1. planning the siting and location of the house with sound values in mind (see Table I); 2. segregating the living functions within the house (see Table II), and 3. building in sound control (see drawings in Table III).

The major problem in building-in noise control is a problem of sound insulation—the reduction of noise passing through walls, floors and ceilings. Sound absorption requires only surface treatments, such as acoustic tiles, either nailed to furring strips or applied with mastic. Sound insulation usually involves basic structural procedures (as shown in the drawings below). Acoustical ceiling tiles should be installed at the time of construction to avoid the extra cost of a double ceiling finish. Sound-insulating walls and floors, on the other hand, are integral parts of the building.

There are a few other cures for noise within the house.

TABLE I: ENVIRONMENTAL FACTORS

<table>
<thead>
<tr>
<th>community</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Zoning regulations against noise-producing, nonresidential uses of your land.</td>
</tr>
<tr>
<td>2. Adequate distance from shopping centers, railroads, truck routes and super highways. Sufficient distance so that noise produced by these elements will be almost indistinguishable from the background noise level.</td>
</tr>
<tr>
<td>3. Avoidance of airports and regular air lanes.</td>
</tr>
</tbody>
</table>

site

| 1. Location on a street with a minimum of through traffic, a cul-de-sac being preferable. |
| 2. Reasonable distance from noise-producing community buildings such as schools, hospitals, fire houses, churches. |
| 3. Restrictions in the zoning or deed of sale making it impossible for homes to be built too close to existing houses. |
| location |
| 1. Suitable distance from street to avoid street noises. |
| 2. Orientation of house so that existing land contours and any plantings will serve as acoustical barriers. |
| 3. Safe distance from possible noises at rear of lot. If possible plan protection from play yards and workshops. |
| 4. When necessary, planning for outdoor acoustical barriers between the house and noise sources. Brick or stone walls, solid-wood fences, earth embankments, plantings help. |

TABLE II: HOUSE PLANNING FACTORS

| 1. Windowless wall or garage or both located as sound barrier against the greatest source of noise (street, neighbors, shopping center, etc.). |
| 2. Separation of quiet rooms from noise-producing rooms by distance: bedrooms away from living, food preparation, and utility rooms; studies isolated from play areas, hobby rooms, party rooms, workshops, etc.; places for quiet conversation protected from general living area by separation or by placing in an alcove off the main living room, etc. |
| 3. Placement of bathrooms, hallways, utility rooms, and other usually quiet areas to serve as sound barriers between various quiet rooms and the noise-producing areas. Placement of fireplace and other interior masonry walls to serve the same purpose. |
| 4. Insulation against sound transmission between bedrooms by closets built against regular walls. Avoidance of "closet walls" which have only a thin plywood or fiberboard backing as the barrier between two rooms. |
| 5. Inclusion in plan and specifications for noise-producing rooms of adequate sound-absorbing treatment, either by design of furnishings or specification of acoustical materials, or both. This sound-planning is particularly important in moderate-sized homes with open kitchens, combined living-dining room areas, and general "family rooms," and also in children's playrooms and adult workshops. |

Noise-producing rooms, particularly baths and utility rooms, should be provided with sound-proof doors and efficient sound-insulating walls and floors.

In houses, especially two-story structures, the problem of impact noise is often of considerable importance. Choice of floor coverings will help in reduction of impact noise.

Reduction of vibration-noise transmission is often a problem in houses with warm-air furnaces, year-round air conditioners, and various types of kitchen and laundry appliances, which are fastened to the floor. Special felt, cork, or rubber mounts are available. These can greatly reduce this type of impact noise transmission.

To reduce vibration noise through duct systems it is possible to use insulating duct liners or acoustical filters. But the best practice is to avoid the need for such treatments by specifying tight and rattle-proof ductwork and quiet-operating fans or blowers.

Plumbing noises can be annoying and precautions should be taken to minimize these sounds as much as possible. The worst noise is usually that from the toilet. But quiet-flushing, whirlpool-type equipment can be purchased at only a slightly higher cost. Drain lines should be isolated from the structure—free standing—or should be insulated with felt or some other form of insulation.

TABLE III: WALL CONSTRUCTION

| 1. Insulation against sound transmission between bedrooms by closets built against regular walls. Avoidance of "closet walls" which have only a thin plywood or fiberboard backing as the barrier between two rooms. |
| 2. Insulation against sound transmission between bedrooms by closets built against regular walls. Avoidance of "closet walls" which have only a thin plywood or fiberboard backing as the barrier between two rooms. |

FLOOR AND CEILING CONSTRUCTION

| Noise-producing rooms, particularly baths and utility rooms, should be provided with sound-proof doors and efficient sound-insulating walls and floors. |
| In houses, especially two-story structures, the problem of impact noise is often of considerable importance. Choice of floor coverings will help in reduction of impact noise. |
| Reduction of vibration-noise transmission is often a problem in houses with warm-air furnaces, year-round air conditioners, and various types of kitchen and laundry appliances, which are fastened to the floor. Special felt, cork, or rubber mounts are available. These can greatly reduce this type of impact noise transmission. |
| To reduce vibration noise through duct systems it is possible to use insulating duct liners or acoustical filters. But the best practice is to avoid the need for such treatments by specifying tight and rattle-proof ductwork and quiet-operating fans or blowers. |
| Plumbing noises can be annoying and precautions should be taken to minimize these sounds as much as possible. The worst noise is usually that from the toilet. But quiet-flushing, whirlpool-type equipment can be purchased at only a slightly higher cost. Drain lines should be isolated from the structure—free standing—or should be insulated with felt or some other form of insulation. |
the right flair steps out front
in new finishes
new fashions
new ideas
New distinctive patterns! Richly beautiful! Surprisingly economical! You can add new sales appeal, quality and value to your homes with these four new wood-grain finishes from Plywall.

Poly-Clad Plywall wood paneling offers a combination of beauty and wearability that lends a “want-to-own” influence to every room, every home. Poly-Clad protected to resist mars, scuffs, stains. The first paneling guaranteed against fading, structural defects and delamination—in writing.

Prefinished, ready to go right up. Available in 3/16” panels, 4' x 8', 4' x 10'. Poly-Clad Plywall wood-grain finishes are also available in 3/4” cabinet stock.

**New finishes**

**ADD EXTRA BEAUTY WITHOUT EXTRA COST!**

The right flair everywhere, the right choice every time—with Plywall’s wide selection of Poly-Clad wood-grain finishes!
The all-new Poly-Clad Plywall Bi-fold Door... Now! Plywall flair in bi-fold doors! Unusual quality and beauty—unusually economical and profitable. No jambs or trim necessary—designed for floor to ceiling openings. No finishing or painting—faces are prefinished and Poly-Clad protected. Back-sealed and edge-banded to prevent warpage.

Easy to install—ready to go right up! Complete package includes top-quality hardware. Available in beautiful Rock Maple wood-grain finish. 8' high, in widths for 4', 5' and 6' openings.

New fashions
A DISTINCT DIFFERENCE IN DOORS!


Match your walls and doors! High-Pressure Laminex doors can be ordered in wood-grain finishes to match Poly-Clad Plywall paneling.

Doors are available in standard heights and thicknesses, with a wide selection of widths.
Now you can offer home buyers the option of wood-paneling accents—in bedroom, dining room, family room or den—at little or no cost to you. Plywall’s new Wainscot Package is perfect for small paneling jobs. Adds a quality “plus” to your sales story.

You save money on materials and labor.

No cutting waste. No special finishing. The Wainscot Package is complete, with 3 Poly-Clad Plywall prefinished wood panels, 9/16” x 39” high x 48” wide, 2 cap and 2 base matching moldings, 61” long (packaged separately). Available in all twelve Poly-Clad finishes. Easy to install. Stays beautiful without bother, for the life of the installation.

matchless beauty—with matching moldings

Plywall accents the quality look with matching moldings. Pre-finished and Poly-Clad protected for easy, time-saving application. Ready to go up—no finishing necessary. Moldings are available in ten styles and twelve finishes to match Poly-Clad Plywall paneling. Perfect for any room decor—paneled, painted or papered.

Whatever your paneling needs, Plywall adds the right flair, the right influence—at half the cost of comparable beauty! See the complete line of Poly-Clad Plywall prefinished products at your dealer’s today!

PLYWALL PRODUCTS COMPANY, INC.
Fort Wayne, Indiana • Corona, California
A subsidiary of Evans Products Company
we'll design your bathroom
to fit your space, your budget,
your brands, down to the
last detail...

Here's what you get: (1) a full color
rendering handsomely mounted
(2) working drawings and specifications
(3) guaranteed delivery of both in
10 working days.

Here's what you do: fill out a complete
questionnaire on which we base drawings.
Name your room size, brands, colors, budget.
Forward this questionnaire to your
STYLON distributor.

Here's the cost: $15 total, for everything;
STYLON pays the rest. You'd pay 10 times
more for commercial design service.

LIVING's design staff has tested this program
for 3 years. STYLON has offered similar
design guidance for a decade and has
satisfied customers galore. Combine LIVING
and STYLON, and you have an unbeatable
combination for turning out complete
bathroom ideas — fast!

Add this service to STYLON's full line of top
quality ceramic tile, distributed nationally,
and a nine point Model Home Merchandising
Program and you sell homes!

Want some action?
Clip and mail
the coupon below.

STYLON CORPORATION
Dept. LD-11
Milford, Mass.

Please send me your folder on the Stylon-
Living Design Service and have a Stylon Rep-
resentative call on me as soon as possible.

Name

Firm Name

Address

City Zone State

Tel.

Specific in every detail... from walls to ceilings to floors
to plumbing fixtures to furnishings... not just a tile sketch.
Alternating patterns in the grain of the parquet floor highlight this dining area and blend smoothly with the random-width paneling of the walls. Paneled ceilings, like this one, tend to heighten the friendly atmosphere.
In dining areas, wood adds warmth and dignity

WOOD sells the rooms that sell the house

Prospective home-buyers have a habit of taking a long, close look at dining areas. Theirs will have to look elegant yet casual . . . leisurely yet distinctive. Your best solution to their desires lies in the use of wood. Nothing in the world makes dining areas more desirable than wood. The serene beauty of paneled walls . . . the warm sheen of strip flooring . . . the homey quality of a beamed ceiling . . . any or all of the uses of wood can change prospects who just bide their time into prospects who make you a bid.

In the March 17th issue of LIFE, a full-page, full-color NLMA advertisement featured the uses of wood in dining areas. Millions of people—your prospects among them—saw the ad. They will be looking for wood in the dining areas you show them. For more information on better homes of wood, write:

NATIONAL LUMBER MANUFACTURERS ASSOCIATION
Wood Information Center, 1319 18th St., N.W., Washington 6, D. C.

Sometimes unadorned simplicity shows wood’s beauty best. Here, the uninterrupted surfaces create a clean, spacious effect. A concave ceiling, supported by laminated beams, lends oriental charm.

Built of wood means built to sell

Large windows with frames of wood give this dining area a feeling of airiness. Walls are paneled with hardwood plywood. Beautiful floors—pegged in this case—generally make a strong impression on sales prospects.
New Kentile "Constellation"...Sparkling Metallics in Low-Cost Vinyl Tile.
Metallic-colored chips embedded in translucent vinyl add dramatic beauty to this Kentile Vinyl Asbestos Tile. Using top-quality Kentile Floors in your homes is a sure way to build confidence...to assure prospects that all materials and construction are the finest. And you're sure of "no-trouble" flooring that eliminates costly call-backs...plus the advantage of creating distinctive flooring designs in your model homes. Speak to your flooring contractor today.

KENTILE FLOORS

YOU CAN BENEFIT FROM BIGGEST ADVERTISING IN THE TILE BUSINESS!
Kentile Floors' outstanding consumer acceptance comes from steady advertising in HOUSE BEAUTIFUL, THE SATURDAY EVENING POST, LOOK, HOUSE & GARDEN plus 12 other leading National publications, as well as the Magazine Sections of 324 Newspapers.

There's a Kentile® Floor for every home—in every price range. Over 200 decorator colors in 5 types of resilient tile.
a good start deserves the finishing touch—

**ALSYNITE**

*Plan to use the trend-setting translucent panel with the name your prospects know!*

Your starts deserve the best — and you'll find that translucent Alsynite can be the effective touch that makes the most of any plan. Alsynite is the translucent panel of light and beauty that has created an entire new trend in contemporary building. Its complete versatility, handling ease and great inherent strength permit you to use it freely indoors and out to achieve individual effects.

Since Alsynite transmits only soft, glare-free light, it provides illumination with privacy. Reinforced with millions of glass fibers, Alsynite combines great strength with light weight — is absolutely shatterproof, won’t warp or chip.

Moreover, Alsynite is the premium quality translucent panel you can rely on. It is backed by its own reputation and the world-wide resources and reputation of RCI, one of the great names in chemicals. An additional bonus to you: Alsynite is the name your prospects will recognize, for its story is being put before the consumer through the biggest advertising promotion in the history of the industry.

Alsynite is available in a variety of colors, sizes and textures in corrugations or flat panels. Talk over your requirements with your dealer, listed in the Yellow Pages under plastic products. Or for free literature or promotional aids, write Alsynite, San Diego 9, California, Dept. AB-461.

Translucent Alsynite transmits only diffused glare-free light. Provides the ideal solution for skylighting, side-lighting, illuminated panels, contemporary interior dividers and partitions.

Shatterproof Alsynite won’t warp, chip or peel. Performs beautifully in the kitchen as light ceilings, sliding doors. Perfect, too, as code-approved shower doors or tub enclosures.

Strong and exceptionally lightweight, Alsynite requires a minimum of structural supports. Can be used in fencing, patio and carport covers to add sales appeal to the finished structure.
Announcing a breakthrough that will affect the entire building
world! Ruberoid Polymerite™ Floor Tile...A New Concept in Flooring

GREASE RESISTANT...STAIN RESISTANT...FLAME RETARDANT...
...UP TO TWICE THE WEAR...ALL AT A REMARKABLY LOW COST!

From an intensive program of research and development, Ruberoid proceeds to change all existing concepts of flooring with a tile years ahead of its time. Ruberoid Polymerite Floor Tile has the characteristics of the finest floor tile—all at a remarkably low cost!

This astonishingly low-cost, easy-maintenance tile is grease-resistant, stain-resistant, flame-retardant—has optimum flexibility, maximum uniformity, gauge control and appears in 32 vibrantly alive colors.

NATIONAL ADVERTISING TO BACK NEW RUBEROID TILE

Full page, 4-color advertisements will appear in national publications supporting Ruberoid Polymerite Floor Tile. In addition, colorful displays and promotional literature to help builders are also available.

Ruberoid Polymerite Floor Tile finally opens the door to superlative flooring in all your building plans. Be sure that you get the specifications on Ruberoid Polymerite Floor Tile right away. Your Representative will be happy to furnish them. Or, write today.

We have been pioneering in Dry-Wall Construction since 1916. It is now acknowledged that Homasote is the finest Dry-Wall material—and that the Big Sheets (up to 8' x 14') save you time and money, eliminate all problems and extra costs arising from taping, nail-popping, moldings and interior trim.

The major facts about each Homasote Product are presented in briefest terms—on a colorful Nutshell Card (as pictured above). Handy reference tables—such as maximum spans for floor joists—are included. Ask your Lumber Dealer—or write us—for a set of these cards. Each shows you where you can save money at some point of construction—and still give the home owner higher quality, finer appearance and more lasting satisfaction. And—be sure you always have available a copy of the latest edition of the 72-page Homasote Handbook. Kindly address Department D-3.

HOMASOTE COMPANY
TRENTON 3, NEW JERSEY
Homasote of Canada, Ltd. • 224 Merton Street • Toronto 7, Ontario
In the masculine mood! A dramatic den in genuine wood Craftwall paneling. Its beauty is guaranteed for the life of the home. Quality is the sales-maker in today's home market. And nothing says quality faster than genuine wood Craftwall paneling. This friendly room, featured in *Better Homes and Gardens*, is one beautiful example. Craftwall defies imitation. Its hand-rubbed look is protected by an exclusive finish that resists scuffs and stains, cleans with a damp cloth. No waxing needed. And Craftwall's beauty is guaranteed for life, in writing. Coupon brings details and complete illustrated brochure.
A new "sales" force in home building

...ROMANY-SPARTAN CERAMIC TILE

Add just the right touch to walls, too, with Romany-Spartan glazed wall tile. There's a range of colors and sizes to suit every taste. Imaginative use of decorative Ceratile produced the unusual effect shown above.

Building have long recognized the sales stimulus of ceramic tile in bath and kitchen. Now, with Ceramaflex® resilient ceramic flooring, buyer preference for ceramic tile becomes an even more valuable sales tool. Ceramaflex offers all the advantages of ceramic tile, yet it's quiet and comfortable underfoot. It's ideal for kitchen, bath, family room, utility room or entrance hall. Install it in your next model home—watch it help turn "shoppers" into "buyers". Your ceramic tile contractor or nearby Romany-Spartan distributor can provide more information and samples of the entire Romany-Spartan line of quality wall and floor tile.

United States Ceramic Tile Company, Dept. AB-14, Canton 2, Ohio.

Ceramaflex® is the exclusive product of United States Ceramic Tile Company

UNITED STATES CERAMIC TILE COMPANY

Each 9" x 9" Ceramaflex tile is made up of 64 ceramic mosaics securely bonded in a pre-formed, flexible rubber grid. Installs quickly and easily on, above or below grade. Because it's pre-grouted, Ceramaflex is ready for use the instant it's laid.
BEAUTIFUL MARLITE PANELING

...for modern wash-and-wear walls in any room

From the basement recreation room to the attic bedroom, Marlite provides soil-proof walls that need no painting or further protection — speed modernization and new construction.

Unlike many “finished” wall panels that dull with age and damage through use, Marlite’s soilproof baked melamine finish shrugs off grease, stains, mars—even heat! Dirt just can’t penetrate its hard, dent-resistant surface. A once-over-lightly with a damp cloth keeps Marlite bright and new-looking for years. And Marlite’s ease of installation over old or new walls saves time and work, assures a better finished job.

Get complete details from Sweet’s File, Building Supply News Directory, or write Marlite Division of Masonite Corporation, Dover, Ohio.
NEW !!! 1961 Printing—Fifth Edition

HOUSE CONSTRUCTION DETAILS

Save Money and Time with these Latest Professional Methods

Here is an exact working guide on every detail of house construction from foundation to finish. Tells you dimensions, materials, processes, step-by-step working methods. Hundreds of scale drawings and photographs make every step easy to follow. Quick-reference index enables you to find instantly any construction detail on which you want modern, authoritative guidance. Can be used for alterations in a set of stock plans, for making additions or changes in a building, or for complete construction of a dwelling. Conforms with modern practice and building regulations in all parts of the country. Gives you helpful ideas on how to build in accordance with latest developments in carpentry methods, materials, painting, heating and air conditioning, insulation and sound-reduction.

The guidance you get on even a single house construction detail can repay you a hundred times the small cost of this remarkable volume. Send for your copy today. Mail coupon below.

NEW Printing

Every Step in House Construction Explained and Illustrated:

- Excavations
- Footings and drainage
- Foundation forms
- Sills
- Girders
- Joists
- Sub-flooring
- Exterior wall framing
- Interior wall framing
- Ceiling joists
- Gable roof
- Hip roof
- Gambrel roof
- Dormer
- Siding and shingling
- Cornices
- Porches
- Exterior walls of wood
- Exterior walls of brick
- Interior walls finished in plaster, in plywood
- Wall panels
- Mouldings for interior trim
- Stair construction
- Windows
- Sash details
- Window framing details
- Doors and door trim
- Hardware used in dwellings
- Closets, shelves, built-in equipment
- Breakfast alcove
- Sewing room
- Flooring
- Chimneys
- Mantels and seats
- Outdoor fireplaces
- Soffits
- Garages
- Insulation
- Arches and gates
- Lattice porch
- Brick trelis
- Garden benches, tables
- Fences
- Barns
- Feeders and nests
- Septic tank
- Painting and finishing
- Heating systems
- Air conditioning systems
- Prefabricated houses
- Useful information for home builders including architectural styles and data on modern building materials.

378 PAGES, SIZE 8.5"x11. FULLY INDEXED. 2500 ILLUSTRATIONS.

Check this Comprehensive Coverage---


More than 150,000 satisfied users!

MAIL THIS COUPON

Simmons-Boardman Publishing Corp., AB-4-61
30 Church Street, New York 7, N.Y.

Send me "House Construction Details" with the understanding that if I am not completely satisfied I can return it in ten days for FULL REFUND. Mail the coupon below.

Enclosed is $5.95 [ ] check [ ] money order

Name
Address
City Zone State
THE NEWEST NAME
IN FINE KITCHEN
CABINETRY:

Sculptured Spicewood*

Custom-crafted kitchen cabinets—with the beauty and the workmanship usually found only in fine furniture. See how Sculptured Spicewood doors and drawers are fully paneled. No applied moldings are used. And, notice how the lustrous baked lacquer finish deepens and enriches the sculptured beauty. This is the kind of kitchen your discriminating customers have been asking for—and now you can supply them. The I-XL Furniture Co., Inc., Goshen, Indiana.

*Trademark
The unmistakable look of luxury.

Made even more desirable by thoughtful "housewife-approved" conveniences! Sculptured Spicewood has a beauty that works for delightful living. Full paneling is an immediately identifiable quality feature. No applied moldings are used. Instead, solid core doors and drawers are fully paneled and framed by expert cabinetmakers. The lustrous lacquer finish stays rich and beautiful with a minimum of care. Behind each door and in each drawer are many thoughtful and unique conveniences that will make a homemaker's hours in the kitchen easier, more pleasant and much more satisfying.

Adjustable shelves—an important feature that sells women on Sculptured Spicewood wall cabinets. Shelves can be moved up or down, in seconds and locked in place firmly.

Pull-out shelves are standard equipment in all Sculptured Spicewood base cabinets. Shelves slide out and back smoothly and easily. Another "housewife-approved" convenience.

Sta-Close* drawers, i-XL trademarked feature. Closes drawers quietly and firmly, then keeps them neatly shut. It completely eliminates the nuisance of partly-closed drawers.

*Patent applied for.
Glowing beauty
for family and dining rooms!

The elegance that Sculptured Spicewood brings to the kitchen can be extended beautifully and naturally to family and dining rooms and to other areas of the house. Standard cabinets can be grouped to form lovely built-in or free-standing arrangements. Many attractive furniture groupings are available, including bars, hutches and sideboards.
Added touches of elegance!

The beauty and versatility of Sculptured Spicewood is clearly demonstrated by this smart foyer setting. Standard cabinets are arranged in sequence and highlighted with a ceramic top against wood and fabric paneling. The soft gleam of the baked and hand rubbed lacquer finish provides the mellow richness of fine furniture. Sculptured Spicewood units offer limitless possibilities for unusual treatments throughout the home.
MILLWORK, CABINETS

Wood Kitchen Cabinet Standards

SINGLE-DOOR WALL CABINETS

12'-24' 12'-24' 12'-24'
13'-18' 20'-27' 30'-45'

DOUBLE-DOOR WALL CABINETS

24'-48' 24'-48' 24'-48'
13'-18' 20'-27' 30'-45'

MIDWAY UNIT

12'-48' 14'-18'
Sliding doors

WALL FILLER

1'' or Wider

WALL-CABINET COMBINATIONS
FOR USE ABOVE APPLIANCES

CABINET WALL CABINET

30'-45'

UTILITY OR BROOM CABINET

18''
180°
Same height as wall cabinets

WALL-END SHELVES

66''
16''
90°

LOW COUNTER OR
LAVATORY UNITS

Single-Door Base with 1 drawer
12'-48' 36''

BASE CABINETS

24'-48''

DOUBLE-DOOR BASE with 1 drawer up to 24''
24'-48'' has 2 drawers

BLIND CORNER BASE

36'-42''

With or without spin shelves

Wood kitchen cabinets can be obtained in any 3'' module between min. and max. dimensions shown.

Courtesy National Institute of Wood Kitchen Cabinets

APRIL 1961
MILLWORK, CABINETS
Steel Kitchen Cabinet Standards

STEEL KITCHEN CABINET STANDARDS
12" to 18" are to 42" - 24" to 48"

STANDARD C'B'T. ABOVE UNIT
USUALLY 30"

MIDWAY UNIT
VARES 12" 18" 21" 24" 21" 18"
WALL-CABINET
COMBINATIONS FOR ABOVE APPLIANCES
WALL-CABINET
INTERMEDIATE WALL FILLERS
CORNER
SOLID SHELVES
SPIN SHELVES
CORNER-WALL-CABINETS

WALL-END SHELVES
(Same Height As Wall C'b'ts.)

SCRIBING
INTERMEDIATE CORNER
SCRIBING
INTERMEDIATE BASE FILLERS

BOTH WALL AND BASE FILLERS RANGE IN WIDTH FROM 1" TO 9" IN VARIABLE HEIGHTS

WALL-CABINETS

TWIN BOWL
STAINLESS STEEL, ENAMELED IRON OR PORCELAIN ON STEEL

BOWL AND LAUNDRY TRAY
STAINLESS STEEL, ENAMELED IRON, OR PORCELAIN ON STEEL

DB'L. BOWL DB'L. DRN'B'D.
STAINLESS STEEL, ENAMELED IRON OR PORCELAIN ON STEEL

SGL. BOWL DB'L. DRN'B'D.
(60" AND 66" ONLY IN EN. IRON OR PORC.)

CUSTOM-MADE SINK AND COUNTER TOPS
AVAILABLE IN STAINLESS STEEL, LAMINATED PLASTIC, LINOLEUM, VINYL AND OTHER MATERIALS

SINGLE-DOOR SINK FRONT
DB'L-DOOR SINK FRONT
RECESSED-TYPE SINK FRONT
CORNER-SINK FRONT

SINKS AND UNDERSINK CABINETS

SINK CABINET
UNDERSINK C'B'T. L. OR R.
UNDERSINK C'B'T.
CORNER-SINK C'B'T.

COURTESY STEEL KITCHEN CABINET MANUFACTURERS ASSOC.
MILLWORK, CABINETS

Steel Kitchen Cabinet Standards

- SINGLE DOOR BASE W/1-DRAWER
- DBL. DOOR BASE W/1-DRAWER UP TO 30" 36" TO 42" HAS 2 DRAWERS
- CORNER BASE UNIT USUALLY REQUIRES FILLER. (As Shown)
- 3-DRAWER BASE
- 4-DRAWER BASE
- REVOLVING SHELVES
- TABLE HEIGHT BASE
- CURVED END
- CORNER BASE SWING SHELF UNIT USUALLY REQUIRES FILLER (As Shown)
- CUTTING BOARD
- SIT DOWN TABLE
- CORNER SPIN SHELF BASE

STANDARD BASE CABINETS

- TRAY CABINET
- VEGETABLE STORAGE
- TILTING BIN
- MIXER CABINET
- PENINSULA CABINET (Can Be Mounted On Casters To Make Roving Unit)

FITTED BASE AND RANGE UNIT CABINETS

- TIMER
- TOWEL DRYER
- 2 BURNER UNIT WITH CUT-OUT IN PANEL
- 2-2 BURNER UNITS WITH 2 CUT-OUTS IN PANEL
- 1-3 OR 4 BURNER UNIT WITH OR WITHOUT CUT-OUT IN PANEL

UTILITY CLOSETS AND OVEN CABINETS

- BASE END SHELVES
- CUSTOM RANGE HOODS ANY SIZE IN COPPER, BRASS OR STAINLESS STEEL

APRIL 1961
KITCHEN KOMPACT

PROUDLY INTRODUCES

NEW FRUITWOOD BIRCH

- STYLISHLY DESIGNED • ELEGANTLY FINISHED
- ATTRACTIVELY PRICED

NOW! TWO HANDSOME FINISHES —
WARMTONE BIRCH and FRUITWOOD BIRCH

There are now two fine Kitchen Kompact finishes—
new FRUITWOOD birch and the popular warmtone birch.
FRUITWOOD birch is a more subtle, more delicate finish—that still retains the expressive grain pattern of red birch. Fully inventoried, immediately available for shipment.
Both finishes uphold Kitchen Kompact’s 24 year tradition of quality design and construction at attractive, competitive prices.
Write today for new literature and prices on Kitchen Kompact’s new FRUITWOOD birch and the full KK line.

STOCKING DISTRIBUTORS IN MOST MAJOR CITIES
(OTHER CHOICE TERRITORIES ARE OPEN)

KITCHEN KOMPACT INC.
JEFFERSONVILLE, INDIANA

STILL THE “BEST BIRCH” LINE

230 AMERICAN BUILDER
No Finer Kitchen Styling . . . at ANY Price

Beautiful kitchens help sell the home . . . and it's easy to feature eye-catching kitchens in your homes—without paying a custom price—when you use 'customized' Texboro cabinets. Texboro's years ahead styling combined with a variety of door styles and finishes in beautiful Ash, Birch, Mahogany and Walnut woods, easily solves the 'look-a-like' kitchen problem even in large projects.

Prospective buyers readily see the difference between these fine furniture type cabinets—with a special 'mar-resistant' finish that is baked on at the factory to last the life of the home—and ordinary 'job-built enclosed cupboards'. . . . that's why Texboro is often the big difference between prospects looking and actually buying.

Prompt job-site delivery to builders and kitchen designers West of the Mississippi—on a single kitchen or for several hundred kitchens.

Write today for free color literature and the name of your nearest Texboro factory representative.

Representatives in all principal cities West of the Mississippi

TEXBORO CABINET CORPORATION
Mineral Wells, Texas

WOODLOUVE®
WOODMOULD
FLUSH
WOODWEAVE®

©1961 Texboro Cabinet Corporation
designed to help you sell faster

You can sell them in the kitchen... when you use beautiful pre-finished Boro Wood cabinets. These fine furniture quality cabinets immediately capture the attention and admiration of prospective buyers because they are styled-built and finished better than ordinary job or mill built cabinets. This is the Boro Wood quality difference that sells prospects!

Boro Wood cabinets are available in modular or custom width units in a variety of door styles, eye-catching finishes and fine woods that offer maximum flexibility of individual kitchen design

...eliminating "look-a-like" kitchen problems - even in large projects. Best of all, factory-engineered Boro Wood cabinets, sink tops and accessories can be installed easily and economically - saving you time and money.

Prompt job-site delivery to builders and kitchen designers East of the Mississippi on a single kitchen or several hundred kitchens.

Write today for free color literature and the name of your nearest Boro Wood representative.

Offices in all principal cities East of the Mississippi.

BORO WOOD PRODUCTS CO., INC.
Bennettsville, South Carolina
Consoweld Plastic Faced Cabinets add the modern touch to your kitchen and bathroom

Check these advantages for new home construction or remodeling programs

- Comparable in price to quality finished wood cabinets
- No finishing delays, eliminates painting, staining or varnishing
- Permanent color and beauty
- Wipes clear with a damp cloth
- Ready for immediate use
- "The Quality Look That Sells".

CONSOWELD CORPORATION Wisconsin Rapids, Wisconsin
NEW! ... the dramatic all-purpose color flexibility of

Autumn Breeze

CONSOWELD
LAMINATED PLASTIC

Here's the newest color idea in laminated plastic surfacing for kitchen counter tops, bathroom vanities, and wall areas.

Consoweld's "Autumn Breeze" pattern graciously harmonizes with the color scheme in your home. It's gloriously blendable ... matching the color luxury of today's kitchen appliances, bathroom fixtures, draperies, curtains, towelings, walls, ceilings and floor coverings. That's the glamorous beauty of this fresh and totally new pattern for kitchen counter tops, bathroom vanities and walls.

Your dealer and fabricator has samples and free merchandising aids for the promotion of Consoweld's new exciting pattern "Autumn Breeze".

CONSOWELD CORPORATION, Wisconsin Rapids, Wisconsin

Consoweld Autumn Breeze is as durable as it is color-flexible; cannot be harmed by boiling water, alcohol, or fruit juices; wipes clean with a damp cloth.
Our large scale factory operation offers you:

- Mass production economies plus unlimited opportunities for custom kitchen designing
- Carefully selected raw materials and scientifically engineered construction
- Accuracy and smoothness in machining through the use of heavy production equipment
- Uniform and complete sanding in preparation for finishing
- A finishing procedure incorporating the latest application techniques including conveyorized oven-accelerated drying, which permits the use of the highest type of finishing materials applied with a maximum film thickness (durability of finish and hazard resistance are remarkable)
- Constant inspection insuring consistently high quality
- Instant delivery by our 59 warehouse distributors, along with all built-in appliances, and assistance in kitchen planning and installation.

For the Most Beautiful Kitchens of them all
For many years, and especially in today's market, the fine-furniture craftsmanship, beauty of design and finish of Yorktowne Kitchens have proved to be powerful incentives in the selling of thousands of homes.

Now, in 1961, Yorktowne gives you even greater advantages with three complete lines . . . covering your entire price range and offering a range of finishes—Rose Champagne, Sanduran Walnut, and Natural Birch. In addition, Yorktowne Kitchens not only are unconditionally guaranteed, but are now backed by the Good Housekeeping Seal of Approval—a guarantee that your home buyer recognizes.

For kitchens with more proved house-selling incentives, be sure to see the full Yorktowne line for '61. Illustrated folders and detailed specification sheets await your inquiries. Write today.

All Yorktowne kitchens are offered in 150 different cabinet models in stock and ready for delivery from more than 60 warehouses—coast to coast. Products of Colonial Products Co., Dallastown, Pa.

"world's largest producer of fine wood kitchen cabinets"
### Wire Nail Estimating Data

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<th>Size and Kind of Material</th>
<th>1000 Feet Board Measure</th>
<th>Trade Name</th>
<th>Lbs. of Nails Required</th>
<th>Length of Nails</th>
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1 x 2 Furring on Brick Walls—100 Lineal Ft.—20d Cut Nails, Requires 5 1/2 lbs.

Base Per 100 Lineal Ft.

Sides of Trim, Per Side of Inside Trim.

48" Wood Lath Per 1000 Lath.
Metal Lath Per 100 Sq. Yds.
or Metal Lath Per 1000 Sq. Yds.
5/8" Gypsum Lath, Per 100 Sq. Yds.

3/4" Plaster Board, Per 100 Sq. Yds.

3/8" Wall Board, Per 1000 Sq. Ft.
3/4" Wall Board, Per 1000 Sq. Ft.
5/8" Wall Board, Per 1000 Sq. Ft.

BATTENS Will Require 1/2 Lbs. 4d Finish Nails Per 100 Lineal Feet.

For Various Styles of Wallboards, See Manufacturer's Specifications for Recommended Nailing.
# HARDWARE, BUILDING SPECIALTIES

## Aluminum Nails

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<tr>
<th>BUILDING MATERIAL</th>
<th>COVERAGE</th>
<th>LENGTH OF NAIL</th>
<th>TYPE OF NAIL</th>
<th>GAUGE</th>
<th>HEAD SIZE INCHES</th>
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**ABBREVIATIONS:**
- Bvl. Sdg. = Beveled Siding
- Cncd. Nlg. = Concealed Nailing
- Scr. Gp. = Screw Grip
- Pln. Shk. = Plain Shank
- Wd. Sdg. = Sinker Head
- Cig. Hd. = Casing Head
- Chk. Hd. = Checked Head
- w/w/att. = With Neoprene washers assembled to nail
## Wood Screw Data

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### WOOD SCREW SIZES

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<th>Threads per Inch</th>
<th>Maximum Head Diameter</th>
<th>Drill Number</th>
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**APRIL 1961**
HARDWARE, BUILDING SPECIALTIES
Hardware Details

HAND OF DOORS, CASEMENT WINDOWS

HARDWARE, BUILDING SPECIALTIES

TYPES OF LOCKS AND LATCHES

SCREWS, TAPPED INTO OUTSIDE ESCUTCHEON
ESCUTCHEON PLATE

LATCH BOLT
DEAD BOLT
CYLINDER LOCK OPERATES DEAD BOLT
LOCKSET INSTALLED

UNIT LOCKS

NOTCH OR CUT-OUT IN DOOR BEFORE INSTALLATION
BORE-IN LOCKS AND LATCHES (TUBULAR AND CYLINDRICAL TYPES)

RIM LOCK
MORTISE LOCK

OUTSIDE
LEFT HAND
RIGHT HAND

OUTSIDE
LEFT HAND REVERSE BEVEL
RIGHT HAND REVERSE BEVEL

SPECIFY WHETHER IN-O-OUT OPENING

RIGHT HAND
LEFT HAND
RIGHT HAND

OUTSIDE OPENING OUT
OUTSIDE OPENING IN

ROLLER STOPS AND BUMPERS

STRAIGHT TYPE
OVERHANG TYPE

VARIES 4" TO 6½"

HOW TO SPECIFY HINGES

Hinges

HOW TO SPECIFY HINGES

Number (in Pairs) - Edge Bolt or Edge Bearing (if Required) - Type of Pins - Type of Screws - Type of Hinge - Net Weight - Height - Width (Measured Only for Full Mortise Hinges) - Weight (Stagger or Heavy) - Finish

TEMPERATURE HINGES are Made to Standard Temperatures or Patterns Currently in Use. Hinge Plates or Standard Plates May Be Had in Either Color and All Small Items With Metal Plates and Made by Other Manufacturers

NUMBER OF HINGES PER DOOR VARY WITH HEIGHT OF DOOR

LOCATION OF HINGES

Courtesy National Builders Hardware Association

AMERICAN BUILDER
INTRODUCING...new, low cost BARCLITE XR1000 Fiberglass Panels...give more light...last years longer! New scientific formula makes BARCLITE XR1000 absolutely weather-resistant! The reason: an improved Acrylic base resin—tougher, stronger, longer lasting than anything you've ever known. And panel after panel is absolutely uniform...identical in color, clarity, thickness, quality! Colors stay clearer, brighter, purer! Resists rust, mildew, fading. Shatterproof BARCLITE XR1000 takes on storms, stress, years of wear. (Write for results of 5-year outdoor torture tests!) Exclusive Infrablok® process insulates against heat and cold. Light in weight, easy to handle—means less installation time and costs for you. Maintenance-free! Perfect outdoors, indoors—for patios, carports, awnings, interior partitions, skylighting, glazing, roofing—wherever you want light plus strength! BARCLITE XR1000 at your lumber dealer, or write: Barclite Corp. of America (an affiliate of Barclay Mfg. Co., Inc.) Dept. AB4-XR, Barclay Building, New York 51.
A complete line: Heavyweight • Lightweight
Full-extension • Under-drawer • Single-track
Double-track • Self-closing.

No. 1400 Ball-Bearing,
Full-Extension Drawer Slide
Improved to provide even better floating extension for heavy drawers. Super Oilite Bearings positively eliminate sticking, jamming, sag or breakdown even when drawers are fully extended under heaviest load. Heavy gauge, zinc-plated steel. Unquestionably the finest drawer slide on the market. Recommended for loads of 100 pounds.

The important things to remember about K-V
They're easy to install! Won't sag or stick!

No. 1100 Lightweight Drawer Slide

No. 1150 Under-drawer Slide
Under-drawer design allows you to use otherwise wasted space between drawers; hardware is completely concealed when drawer is open. Self-aligning drawer tracks for easy installation—even on existing drawers. Zinc-plated finish. Recommended for loads to 50 pounds. Large nylon rollers for quiet action, smooth operation and long, trouble-free service.
**No. 1500 Under-drawer Extension Slide**
Designed for use where side clearance space is not available. Ideal for narrow spaces, built-in units, deep storage drawers, built-in record players or pull-out typewriter shelves. Zinc-plated finish, on heavy gauge steel, ball-bearing rollers for smooth, frictionless operation. Recommended for loads of 50 pounds.

**No. 1600 Self-closing Drawer Slide**
Operates smoothly and quietly on lifetime ball bearing nylon rollers. Drawer closes automatically when within six inches of closing; may be removed easily at full extension. Stopping points protected with rubber bumpers; slides and bearings permanently lubricated. Made of heavy gauge, zinc-plated steel. Recommended for loads up to 100 pounds.

**No. 1700 Full Extension Drawer Slide**
Designed for use in executive desks, file cabinets and drawers containing heavy precision equipment. Superior construction insures a lifetime of smooth, easy operation, allows full use of all the drawer space even under heavy weights. Made of heavy gauge, zinc-plated steel. Recommended for loads over 100 pounds.

---

**drawer slides are:**
Always operate smoothly!

---

**No. 1175 Single-track Extension Under-drawer Slide**
A new low cost, single-track, under-drawer slide that meets requirements of any household drawer. Fits any length or width drawer; no measuring, marking or templates required. Bright zinc electroplated finish for corrosion resistance; Teflon Roll-ezy bearings for quiet, smooth operation. Recommended for loads to 50 pounds.

**No. 1300 Lightweight Extension Drawer Slide**
The most popular, most widely used drawer slide on the market. Newly improved, with nylon ball bearing wheels for noiseless, smooth operation every time. Especially economical, easily installed. Will not jam or stick even under maximum load at full extension. Bright zinc-plated finish. Recommended for loads to 50 pounds.

**No. 1390 Lightweight Full Extension Drawer Slide**
Fits all drawers from 15" to 29" deep, provides excellent full-extension drawer range for a variety of cabinet styles. Durable zinc-plate finish, rugged construction. Long, quiet life assured by ¾" nylon rollers. Lifts out easily for cleaning when fully extended. Recommended for loads to 50 pounds, fully extended.
## FOR DOORS, DRAWERS, WINDOWS

**GRANT SLIDING HARDWARE THROUGHOUT THE HOUSE**

### SLIDING DOOR HARDWARE

- **1000/6000 Reversible Rocket Sliding Door Hardware**
  - Load capacity: up to 75 lbs./door for %4” to 1%” doors
  - Inexpensive standard duty line with adjustable double wheel carriers

- **7000 Sliding Door Hardware**
  - Load capacity: up to 100 lbs./door for %4” to 1%” doors
  - Each door rides on eight rollers
  - Moderate cost standard duty hardware, fully adjustable

### DRAWER SLIDES

- **305/306 Drawer Slides**
  - Load capacity: up to 50 lbs./pair
  - Continuous ball bearing action
  - Every inch

### DRAPERY HARDWARE

- **2200 Drapery Hardware**
  - Medium-heavy duty hardware
  - Entirely non-corrosive aluminum track and parts, nylon carriers
  - Wall or ceiling installation
  - Finest drapery hardware available

### DOOR POCKET FRAME

- **Grant Sliding Door Pocket Frame**
  - Load capacity: up to 100 lbs./door for %4” to 1%” doors
  - Fits standard 2 x 4 construction

### CLOSET ROD

- **Grant “Golden” Closet Rod**
  - Gold anodized aluminum track
  - Unique self-lubricating black nylon carriers
  - Sturdy end brackets and center support
  - Most functional, beautiful closet rod made

### FOLDING PANEL HARDWARE

- **2500 Folding Panel Hardware**
  - Load capacity: up to 35 lbs./panel
  - Either two door (one way) or four door (bi-parting) installation
  - Inexpensive standard duty hardware, fully adjustable

---

Grant Sliding Hardware is naturally suited for application to "built-ins"...for sliding doors or drawers in linen closets, kitchen cabinets, multi-purpose wall units, standing clothes closets and other cabinetry, no wider range of such hardware is produced by any manufacturer, for application throughout the house.

---

**GRANT SLIDING HARDWARE**

*GRANT PULLEY AND HARDWARE CORPORATION*

1 High Street, West Nyack, New York • 944 Long Beach Avenue, Los Angeles 21, Cal.

- Sliding door hardware • Drawer slides • Drapery hardware • Pocket frames • Pulls • Special sliding hardware
NEXT STEP...  
A LOCK THAT INSTALS ITSELF

You'd think so, the way KWIKSET speeds installation time. Take the BIT-JIG with built-in tools. Set in place, tighten, and drill; latch and lockset holes are precision bored in seconds. The ROUND eliminates mortising... place after drilling. And with the amazing SOK-IT STRIKE there's no chiseling, mortising or screws...Just drill a hole, position strike and hit special staking tool with hammer...it's in to stay. "Installs itself?" Not yet, but we're getting there!
Cut Your Installation and Call-Back Costs With This New Dry Wall Nail

Read How It Resists Nail Popping Under Any But Extreme Conditions

Sheffield's newly designed dry wall nail not only saves you labor and material costs but also contributes to your reputation for quality construction. Here's why:

**Cuts material and labor costs**

The new, patent applied for, Sheffield nail will fasten 25% more dry wall per cwt. than its .098 predecessor. That's because the new nail, with its shank diameter reduced to .094, contains more nails per cwt.

The nub in the conical head and the modified ring shank make for safer handling and faster, easier nailing — can save one hour's labor per house.

**Designed to resist nail popping or bulging**

Annular rings are placed at the midsection of the shank to concentrate the holding power where it is needed. It's a known fact that wood dries from outside to center. When it does these rings tighten in the wood instead of loosening—and thereby prevent popping of nails or bulging of the heads.

Because the nail moves with the studs and joists as they dry, the tension of the countersunk nail head is maintained. The dry wall is held tight against the lumber.

The nub in the center of the head takes the force of the hammer blows. It protects the thin conical head from distortion and increases the bond of the sealing compound to steel.

The conical head is extra thin so that the final hammer blow countersinks it with its rim flush with the wall surface.

Breaking of paper surface is virtually eliminated and smooth taping of the joints is made easy.

For full information, get in touch with your Sheffield dealer, nearest Sheffield office or write: Sheffield Division, Armco Steel Corporation, Sheffield Station, Kansas City 25, Missouri.

Sheffield Plants: Houston • Kansas City • Tulsa

**ARMCO Sheffield Division**
PERFECT FOR TRADITIONAL HOMES...

French Classic

Your traditional homes will sell faster with Medalist "French Classic" hardware in the kitchen. Available in Antique English, Old Copper, Black or White enamel with Gold. See your Medalist hardware dealer today, or write us!

NATIONAL LOCK

Medalist

trademark for outstanding value in builders hardware

MEDALIST HARDWARE DIVISION
NATIONAL LOCK COMPANY
Rockford, Illinois
SPC AREAWALLS

The Original and Best

You guarantee it. We back you up. SPC does its own deep corrugation for greater strength. SPC adds roll top edges for complete safety. SPC heavy galvanizing protects against rust and corrosion. That's why SPC sets the pace in areawalls.

You can sell our products with confidence... meet and beat all competition.

All standard sizes and styles or special sizes made to order for any installation. Three grades to choose from:

1. Imperial Lux-Right, the finest areawall made
2. Economy Lux-Right, the general use leader
3. Thrif-T, lower in price but made to last

SPC AREAWALL GUARD

Universally adaptable for most makes of areawalls. Installs in seconds. Constructed of heavy cross weave steel wire on a frame of rolled bar size. Hot dipped zinc coated after fabrication to insure freedom from rust and corrosion. Cross weave construction prevents loss of light yet easily supports the weight of running children, adults, and power lawn mowers.

Write for full information on areawalls and guards.

Saint Paul Corrugating Co.
South End Wabasha Bridge, St. Paul 7, Minnesota

FOR ALL-AROUND FASTENING ON LARGE CONSTRUCTION AND INSTALLATION WORK

SELF-DRILLING ANCHORS

YOU CAN'T PULL 'EM OUT! STRONGER THAN THE CONCRETE

Engineered performance that will save you money—faster, more accurate drilling into the hardest masonry materials. specially designed teeth...coated-hardened, zinc plated expander plug. Install with hand or impact hammer.

3 NEW IMPROVED TYPES

FLUSH (Hond) 1/4" to 3/4" SNAP-OFF (Power) 1/4" to 3/4" TIE-WIRE (Power) 1/2" hole

SEND NEW "HI" FASTENER CATALOG

HOLUB INDUSTRIES, Inc.
467 Elm Street • SYCAMORE, ILL.

TUFF-BOND SUPER-STRENGTH ADHESIVES

Formulated for the Construction Industry

TUFF-BOND QUIK-SET ADHESIVE... An excellent all purpose FAST-SETTING ADHESIVE with neoprene base...brush consistency.

*TUFF-BOND GENERAL PURPOSE IMPROVED... An ALL PURPOSE water resistant adhesive that sticks almost anything to anything.

*TUFF-BOND NO. 2-S... An oyster white CERAMIC TILE ADHESIVE

*TUFF-BOND NO. 4... A WALLBOARD AND A DRY WALL ADHESIVE. An economical adhesive with great strength and excellent aging qualities.

TUFF-BOND No. 5... A FIBRE AND ACOUSTICAL TILE ADHESIVE with strong bonding strength.

TUFF-BOND NO. 8... A CONTACT BOND ADHESIVE for bonding linoleum to wood and to metal.

*Complies with Commercial Standard CS 181-52.

Recommendations for special adhesives made without cost or obligation.

GOODLOE E. MOORE INCORPORATED
DANVILLE 7, ILLINOIS

INCREASE HOME SALES IN 1961 THIS PRACTICAL WAY—
give your home buyers a copy of THIS IS YOUR HOME—use it these four practical ways:

1. AS A DIRECT SALES AID...Your looseleaf "builder's edition of This Is Your Home has extra space on the dedication page. This allows you to give personalized copies to each purchaser of your homes.

2. AS AN INDIRECT SALES AID... Give each home buyer an appreciation of your own skill—with a book that points out the craftsmanship and hidden values in your homes.

3. AS A PRESTIGE BOOSTER... Your special looseleaf edition allows you to insert a model home picture with instruction sheets about materials and appliances used in the home.

4. AS A GOODWILL BOOSTER. Home buyers will appreciate the "do-it-yourself" emphasis and these essentials of good home maintenance eliminate expensive, unnecessary service calls for you.

Look at this book through the eyes of your home buyers, and you'll see a substantial increase in your own sales.

Order a copy today and see how readily this recently published book will fit into your home sales plans.

Sample price, looseleaf buckram binding, $4.75 per copy (plus $0.30 for your business name, gold stamped on cover.)

Case bound edition (not looseleaf) $5.95 (quantities only stamped $0.30 extra.)

Simmons-Boardman Pub. Corp.
Dept. AB-4-61
30 Church Street, New York 7, N. Y.

Yes, rush me a sample copy of THIS IS YOUR HOME for which I enclose $... ($4.75 per copy, $5.05 per copy with name stamped) or [ ] bill me.

Name _____________________________________________
Street _____________________________________________
Address ___________________________________________
[ ] Imprint as follows: __________________________________

AMERICAN BUILDER
Incredible! Even a $12,000 House Can Have

THE WORLD'S MOST ADVANCED DISHWASHER!

...and it cuts builder costs 5 ways!

THE NEW
LING-TEMCO®
DISHWASHER

This revolutionary dishwasher gives you unprecedented freedom to plan dozens of exciting new saleable kitchen ideas:
Install it on the wall, on or below the counter, below the range burner top, recessed in the wall. You can even float it as a room divider!
YOU SAVE ON PLANS! No costly plan changing to add the Ling-Temco. It fits any plan you already have.
YOU SAVE AT LEAST $60 IN FLOOR SPACE because there's no floor space needed. Eliminates 4 Square feet every other dishwasher requires!
YOU SAVE INSTALLATION COSTS! The exclusive L-T Couplermatic permits pre-installation of plumbing connections. Slide the dishwasher in any time later.
YOU SAVE DRAIN PUMP COSTS! Most locations require no drain pumps.
AND YOU SAVE BIG MONEY ON THE DISHWASHER ITSELF! It's the most competitively priced dishwasher on the market!

NOW TURN THE PAGE AND LEARN 7 REASONS WHY WOMEN WILL BUY THE HOME WITH THE LING-TEMCO DISHWASHER IN IT!

BUSINESS REPLY MAIL
No Postage Stamp Necessary If Mailed in the United States

Postage will be paid by
LING-TEMCO ELECTRONICS, INC.
TEMCO INDUSTRIAL DIVISION
P.O. BOX 6191, DALLAS 22, TEXAS
7 REASONS WHY
Women Love The
Ling-Temco Dishwasher
...and will be sold by
the kitchen that has it!

What woman wouldn’t love
the ONLY dishwasher that exclusively...

1. WASHES DISHES IN % THE TIME because it fills, washes and drains continuously. Only Ling-Temco does the complete dishwashing job in 25 minutes!

2. DRIES DISHES FASTER because dishes are steam-purified by a self-contained steam generator—then flash dry when the air hits them! Now, just stack 'em and store 'em!

3. WASHES DISHES CLEANER because all available washing power is directed in a solid Wave-Of-Water. It's the only dishwasher that doesn't dissipate its washing action in a sprinkle against all the dirty dishes at one time.

4. GUARANTEED “NO WATER SPOTTING OR STREAKING” of dishes, glasses or silverware because the Ling-Temco produces its own distilled water containing no water-spotting minerals.

5. ELIMINATES FAUCET PRE-RINSING because there’s no food particle feed-back. Particles are trapped and drained away constantly by L-T’s unique filtering system. The Ling-Temco dishwasher changes water 7 times... and in only 12½ minutes.

6. STEAM PURIFIES DISHES HOSPITAL-CLEAN because the L-T fogs purifying steam over dishes for 12½ minutes! Dishes, pots, pans, baby bottles are not only clean—but steam purified!

7. LING-TEMCO SAVES HOMEOWNER TIME, SPACE, MONEY, WATER, MAINTENANCE AND INSTALLATION. Available in 3 compact sizes for 6, 10 and 15 place settings (NEMA Standards) in brushed stainless steel and kitchen decorator colors.

No woman can resist it... or the kitchen it's in.

TIP TO BUILDERS:
Remember — when you sell the woman, you’ve sold the home. And the Ling-Temco sells the woman!

Fill Out And Mail This Coupon Now!

LING-TEMCO ELECTRONICS, INC.
Temco Industrial Division
P.O. Box 6191, Dallas 22, Texas

Show me how your unique, easy-to-install Ling-Temco Dishwasher can help me create excitingly new and different kitchens that will increase the value and saleability of my home... and save me money, to boot!

Please send me full detailed information.

NAME
COMPANY
ADDRESS
CITY
STATE
TEL. NO.

OR—INSTALL THE LING-TEMCO EASILY THESE EXCITING NEW WAYS:

* Floating as a room divider or above a peninsula counter.
* On the counter—next to the sink.
* Below sink bowl.
* Below or above a built-in oven.
* Above clothes washer or dryer when in kitchen.
* Below counter in non-standard cabinets.
Check Page of Appliance Extras

Not all the units shown here are termed "appliances". In the opinion of our editors they are, however, "appliance extras"—units which are fast becoming standard equipment in new houses. Since they often tip the scales in favor of a house's saleability, we suggest: check this page before planning your next model house.

INCINERATORS: Average dimensions for incinerators—18" wide, 36" high, 24" deep. Both gas and electric models are available. Most new gas models are double-burning, resulting in "smokeless-odorless" operation. Both types require a Class A flue. Nearly all types are sold with a one-year warranty. Check local codes for rules on installation.

GARBAGE DISPOSERS: Are from 12" to 15" in length. Most operate with 1/3 HP, although 1/2 HP residential units are available. Need 115 volt 60 cycle outlet. Most disposers have a one- or more-year warranty. Average net weight is 25 lbs. Nearly all units are continuous feed types, and many have a safety mechanism to prevent jamming. Budget and deluxe models available.

EXHAUST FANS: Available for vertical or horizontal discharge of air from kitchen. Can be installed in ceiling; through wall; in cabinet. For vertical discharge of air from bathroom, units are available without extra; with light; with heat and light, and with infra-red sun lamp. Most kitchen units come in two sizes: with an 8" blade and with a 10" blade, and fit into openings 9" and 11", respectively. Bathroom fans available in 10"-14" diameters, approximately.

FOOD CENTERS: Installs so that power unit is below surface of counter. Connects to 115-volt AC outlet. Generally has six speeds. Is sold with or without its attachments, which include a mixer, blender, fruit juicer, knife sharpener, and meat grinder.

RANGE AND OVEN HOODS: Available with and without exhaust fans, light. Also available from some manufacturers with built-in radio-intercom, and range controls. Units produced for use over range tops, free-standing ranges set against wall, and for ranges top built-in to counter island. Oven hood generally made in 24", 27" and 32" lengths. Range hoods made in lengths from 24" to 48".

BARBECUE GRILLES: Are built for both indoor and outdoor use. Units in sizes calling for rough openings of from 22" to 36" long; from 17" to 22" wide and approximately 11" deep. Some are made with electric rotisserie, hood, timer and storage drawer, or any combination of these. Often installed with gas jet to start charcoal.

INTERCOM SYSTEMS: Most popular units have radio (some are transistor type), inter-communication system for each room in the house and for front door. Other models have clock with alarm and timing devices, 115 volt 60 cycle outlets, and phonograph jacks. Average outside panel size is 9" x 11".

NOTE: For information on manufacturers of any product described here, check the yellow pages or write to Buyers Guide Editor, American Builder, 30 Church Street, New York 7, New York.
APPLIANCES
Planning for Kitchen Built-ins

**DROP-IN RANGE (FRONT VENT)**

- 18'-22"
- 10'-4"
- 13'-21"
- 5'-37"

**DROP-IN RANGE (NO VENT)**

- 23'-42"
- 16'-20"
- 25'-40"

**STACK-ON RANGE**

- 20'-12"
- 22'-25"
- 5'-8"

**NOTE**

Both gas and electric models are available for each of the units shown here. Check with your supplier for exact dimensions. Oven measurements here only include single door integral broiler types. Double door (with separate broiler) and double oven types are also available.

For a list of manufacturers, check the yellow pages of this directory or write to the Buyers Guide Editor, American Builder, 30 Church St., New York 7, N. Y.

**COUNTER-TOP RANGE**

- 24'-36"
- 20'-25"
- 10'-4"
- 3'-8"

**STACK-ON OVEN**

- 25'-31"
- 22'-26"
- 23'-24"

**FOLD-BACK RANGE**

- 42'-47"
- 21'-23"
- 14"

**THE U-SHAPED KITCHEN**

- COOKING TOP
- OVEN
- REFRIG.

**THE L-SHAPED KITCHEN**

- COOKING TOP
- OVEN
- REFRIG.

**THE CORRIDOR KITCHEN**

- COOKING TOP
- OVEN
- REFRIG.

**NOTE**

Before planning your kitchen, divide the space into three general work centers: cooking and serving; food storage and preparation, and clean up. Ideally, these areas should be located at the points of a triangle. The distance between each point of the triangle should be as small as possible, and at the same time allow enough space to move easily from point to point. There should also be adequate work surfaces and storage space at each center.
Laundry Planning Standards

**WASHER**

Minimum work space for washer and dryer.

- 26" to 32" x 34"
- 36" to 40"
- 25" x 15"
- 18" x 72"

**DRYER**

- 28" to 31" x 25" to 28"
- 36" to 40"

**IRONER OPEN**

Minimum work space for ironer.

- 36" x 36"
- 36" x 36"
- 52"
- 3.3"

**IRONER CLOSED**

- 36"
- 16" to 21"

**IRONING BOARD**

Minimum work space for ironing board.

- 54" x 42" to 53"
- 28" to 36"
- 36"

**BUILT-IN IRONING BOARD**

- 34" to 53"
- 30" to 36"

April 1961
handsomely fits your kitchen
... happily fits your budget

Broan's new design blade — MIXED-FLO — provides blower-like power to a fan-operated hood. To you this means swish styling for your kitchen, plus near silent operation, plus dependable, trouble-free performance... the wanted advantages you'd expect to find only in luxury-priced hoods. And with these advantages comes Broan's recognized quality craftsmanship — the very best in detailed metalworking. See your distributor, or write for full information.

- Vertical or horizontal discharge
- Graceful, contoured styling lets cabinet doors open fully
- Powerful whisper-quiet fan, built in underneath hood, saves cabinet space
- Pushbutton controls, easy to reach, on front of hood
- Concealed twin lights, for soft, glare-free illumination
- Lifetime aluminum filter, removes easily for cleaning
- Factory pre-assembled, prewired for fastest installation
- Just 5" high... 24", 30", 36", 42" wide
- Coppertone, antique coppertone, genuine stainless steel — matching splash plates. Decorator colors are available on special order.
- The MIXED-FLO hood, and all Broan hoods, meet H.V.I. requirements.

Broan Manufacturing Company, Inc.
946 W. State St., Hartford, Wis., Near Milwaukee
Specialists in Quality Ventilating Equipment for Over 30 Years

In Canada
Manufactured by Superior Electric, Ltd., Pembroke, Ontario

BROAN MIXED-FLO HOOD
Winner of the "American Builder" Quality Builders' Product Award

BROAN DUAL BLOWER HOOD Deluxe, power-packed, whisper-quiet performer... vertical or horizontal discharge. Dual centrifugal blowers with 4-pole neoprene-mounted motor... seamless construction... factory pre-wired, pre-assembled.

BROAN DUAL BLOWER ISLAND HOOD Has the same engineering features and advantages as the regular Dual-Blower Hood.

DUCT-FREE HOOD COMBINATION with air-refreshing Charcoal Converter
This slim-line converter mounts atop any dual blower or Mixed-Flu Hood for efficient duct free service.
YOUR GREATEST ASSET IS OUR QUALITY PERFORMANCE!

GIVE HER WHAT SHE WANTS WITH RCA WHIRLPOOL

...the only complete line of GAS and ELECTRIC NO-FROST refrigerator-freezers with true built-in look!

No matter what the home buyer's preference... gas or electric... there's an RCA WHIRLPOOL refrigerator-freezer to meet most every need, every desire. And, regardless of the kitchen's design, there's an RCA WHIRLPOOL model that's right in size, in type, in style and in price... for both you and your customer. It can have No-Frost refrigerator plus No-Frost freezer. It can have IceMagic® automatic ice maker, Jet-Cold* Shelf, Jet-Cold* Meat Chest, swing-out shelves... and many other new features that mean so much to modern housewives. Yes, the complete RCA WHIRLPOOL line enables you to buy gas and electric appliances from one source and get a package deal at a package price. Write Contract Division, Whirlpool Corporation, St. Joseph, Michigan for complete details.

*Im.
the name is magic!

MAGIC CHEF

...and national surveys prove it! Independent surveys show Magic Chef is the best known name in ranges. Magic Chef national advertising in McCALL's, BETTER HOMES & GARDENS, PARENTS' and LIVING continues to increase Magic Chef's outstanding consumer acceptance. Put Magic Chef's prestige name to work for you now. Write or wire Magic Chef, Inc., Cleveland, Tennessee.

Now ... the priceless Magic Chef name is yours at a down-to-earth price!
How to make a husband buy a house...
*(make his wife fall in love with the kitchen)*

"No more dried out roasts, Dear" The Westinghouse Built-In Oven helps make every wife a perfect cook thanks to the exclusive Westinghouse “Roast Guard”—a feature that keeps meat juicy, hot and tender hours after cooking. For convenience sake, the Controls are at eye level . . . mounted at the side out of the heat zone. Oven door lifts off for easy cleaning. Can be built-in or stacked. Installs with just two screws. You can be sure . . . if it's Westinghouse.

"Who needs help with a kitchen like this" When your prospect sees a kitchen equipped with Westinghouse Built-In Appliances, she starts thinking in terms of her home. And no wonder! Only Westinghouse has a Center Drawer Refrigerator that keeps meat fresh 7 days without freezing; a washer and dryer in only 25" of floor space . . . plus many other unique appliances.

These appliances and Kitchen Cabinets, plus Heating & Air Conditioning, Wiring Devices, Micarta® Counter Tops, Apartment Elevators, are all available through one point of contact. See your Westinghouse residential sales manager or write Westinghouse Electric Corporation, Contract Sales Dept., Mansfield, Ohio.
More...and more women want a G-E Refrigerator

According to a recent survey, General Electric is the number one name in the home appliance field—and by a big margin. Could be the fact that General Electric makes such a broad line of refrigerators—many sizes, many prices, all with convenience-features the ladies obviously like. Could be General Electric's dependability—6 million refrigerators in use ten years or longer. Could be you're making sales the hard way if you're not including a General Electric Refrigerator in your homes. Your General Electric Distributor will show you how easy it is. Call him now.
NOW ALL CONTROLS ARE EYE-HI

The Eye Appeal with Buy Appeal on General Electric Built-in Ranges—General Electric, the "New Idea Line" has another bright brainchild for '61: all controls for the Custom cooktop (including the automatic Sensi-Temp* unit) are on the hood!

They line up with oven controls for the handsomest coordinated cooking center yet. And there are three brand new General Electric hoods in '61...two with surface unit controls. News too: Mix-or-Match color inserts...inspiration for decorators!

Built-in Beauty in Any Price Range! Choose your ideal General Electric combination from six oven models, seven cooktops, three hoods! There's a combination to suit every homebuilder's need. Mix-or-Match colors, coppertone, and stainless steel. In today's market, it's not enough simply to match your competitors' built-ins. Women want features and the quality name. With General Electric's new look and new ideas, your home is 1961 all the way.

General Electric Company, Range Dept., Appliance Park, Louisville 1, Ky.

Progress Is Our Most Important Product

GENERAL ELECTRIC
Lucky tenants in Max H. Resnick's Nord-Crest Apartments stay delightfully cool all through Southern California's long, hot summers. One-bedroom apartments have a 10,000 BTU General Electric Room Air Conditioner; larger apartments have two.

"GENERAL ELECTRIC ROOM AIR CONDITIONING HELPS RENT MY APARTMENTS...KEEPS THEM RENTED, TOO"

"Prospects are impressed when they see the General Electric name," says President Max H. Resnick of Max H. Resnick Construction Company, Reseda, California. "Tenants like the performance and the neat, built-in look of their air conditioners, I like General Electric's prompt, efficient service—the best in this area."

Mr. Resnick bought 250 built-in units last year... recently ordered 350 more. "Installation is easy," he adds. "We install the cases during construction, the chassis later. Chassis are delivered—and I pay for them—when construction is finished." All of his luxury apartments will be completely air conditioned by General Electric Built-In Room Air Conditioners.

Choose from 18 different models ranging from 6,000 to 18,000 BTU's*. There's a General Electric Room Air Conditioner for almost every wiring and installation need. General Electric Company, Room Air Conditioner Department, Appliance Park, Louisville 1, Kentucky.

* Capacities tested and rated in compliance with NEMA standard CN1-1960, and stated in terms of British Thermal Units.

Air conditioning doesn't mar the appearance of these attractive apartments, inside or outside. Inside grilles also are neat and unobtrusive. Modern, rust-proof grilles of aluminum replace outside closure panels when the chassis are installed.
Install the new General Electric Filter-Flo® Washer flat against the wall...and save valuable space!

To give your kitchens or utility rooms a custom-built effect—all hose and plumbing connections are recessed—in most models in the new 1961 line. Every Filter-Flo model is counter height and depth, 36" by 25". And that's what the ladies love today!

They'll love the new 12-lb. capacity, too—20% more than in previous models and now found in every model. A typical 12-lb. load is 3 double sheets, 4 pillowcases, 3 men's shirts, 4 T-shirts, 3 heavy bath towels, 5 washcloths, 12 handkerchiefs—tablecloth. Every piece gets piece-by-piece washing action.

As always, you can promise your prospects the quality and dependability only General Electric delivers. Ask your General Electric Distributor for complete information. Or write to the General Electric Home Laundry Dept., Room 207D, Bldg. 1, Appliance Park, Louisville 1, Kentucky.

Progress Is Our Most Important Product

GENERAL ELECTRIC
“We sold our Medallion Homes 4 to 1 over competitive houses in our area,” says Eric Eriksson, Builder of Oak Park Estates, Dallas, Texas. “I give full credit to the safety, convenience and beauty of the General Electric features. People love home heating and cooling in one unit and they like getting kitchen appliances included in the price. We’re glad we built these homes to the Gold Medallion standards set by the Dallas Power & Light Company.”

**Homebuilders:** Medallion Homes equipped by General Electric are easier to build and sell. Here’s why: 1. *One source* saves you time. 2. You get expert assistance in all your electrical planning. 3. General Electric stands for quality. 4. A new local plan helps you sell your homes!

Call your General Electric Major Appliance Distributor, today.
Now...a quality
KitchenAid®
dishwasher for every home you build

More models and features than ever before, with a wider price range, too. Now KitchenAid can help every kitchen say "quality home" to prospects. Wide choice of finishes, including wood. Front-trim kits let you match counters, cabinets, floor or walls for a decorator look.

New performance; new styling; push buttons; new king-size capacity; convenient, load-as-you-like racks—all combine with the KitchenAid reputation for finest washing. Use these new KitchenAid dishwashers and their unmatched features to sell the lady, in the room that sells the house.

KitchenAid®
A model for every kitchen...every budget

KitchenAid Home Dishwasher Division
The Hobart Manufacturing Co., Dept. KAB
Troy, Ohio (In Canada: 175 George St., Toronto 2)

☐ I want Information on the new dishwasher line.
☐ Send me name of nearest distributor.

Name..............................................................................

Firm..............................................................................

City............. Zone.. County............. State..............

APRIL 1961
BRAND NAMES DIRECTORY (Continued from page 276)

SENTINEL Berkeley Aluminum Products
SENTINEL Crane Co
SENTINEL Spekman C
SENTRY DOOR SEAL Sentry Stop-A-Draft Co
SEQUIN Congoleum-Nairn Inc
SEQUOIA Redwood Sales Co
SERVANET Hyde Park Prods
SERVICE-MASTER McCab
SERSYS Servis Equipment Co
SERVIS GYRO Servis Equipment Co
SERVIS LONE STAR Servis Equipment Co
SERVIS NO, 7 Servis Equipment Co
SERVIS 66-INCH Servis Equipment Co
SETFAST Cambridge Tile Mfg
75 HOUSE PAINT O'Brien
SEWERTITE Carey Philip Mfg
SHADE SCREEN Rudiger-Lang
SHADESCREEN Kaiser Aluminum & Chemical Corp
SHADO-SHAKE Supradur Corp
SHADOW-CAST Certain-Teed
SHADOWBESTOS Johns-Manville Corp
SHADOWLAP Celotex Corp
SHADOWOOD Lehman Co
SHADOWS-SETTING Masonite Corp
SHACKETOWN Shaktown
SHALLOW-FLOW Goulds Pumps Inc
SHEETFAB Frantz Mfg Co
SHEETY Sheffield Div
SHELBY Columbia Geneva
SHELDOT ET ENAMEL Marletta Paint & Color Co
SHIELDWHITE PAINT Marletta Paint & Color Co
SHINGLE N SHAKE Lowe Bros
SHOJI Cleary Corp
SHOLUME Shower Door Co
SHOPMASTER Shopmaster Div
SHOPMATE Portable Electric Tools Inc
SHORGA Suburban Propane
SHORTY Black & Decker Mfg
SHOVELAIRE C & M
Air Conditioning Co Inc
SHOWCASE Congoleum-Nairn
SHOW MAGIC Daryl Prods
SHOWERAMA Daryl Products
SHOWERGLASS Shower Door Co of America
SHOWERTITE Elon Theodore
SHUR-TRED Johnson's Wax
SHURE-SET Ramset Fastening System
SHUREBOND UNIT SYSTEM Goldsmith Metal Lath Co
SI-CONE Simonds Saw
SI-FLO Spekman Co
SIERRA Fiat Metal Mfg Co
SIGMA Wakefield Co
SIGUNFI Sika Chemical Corp
SIKA-GARD Sika Chemical
SIKA-KOTE Sika Chemical
SIKA SEAL Sika Chemical
SIKACRETE Sika Chemical
SILO-SET US Gypsum Co
SILOACOST American Asbestos Product Co
SL-LOAD Drott Mfg
SL-LOAD Drott Mfg Corp
SLIDESHOVE Drott Mfg Corp
SKILSAW Skil Corp
SLIPPER Fiat Metal Mfg Co
SKOOPER Koehring Co
SKOTCH Superior Fastener
SKREW-SET Ramset Fastening
SKUFFPRUF Richcraft Co
SKY-BLAST Robbins & Myers
SKYMASTER McCabe
SKY WITCH Witch Marketing

Wincroft BUILT-INS

Quality Appeal: Price Appeal

Your choice of decorator colors and finishes . . . beautiful satin chrome plated steel, and in porcelain enamel—coppertone, silvertone, pink, yellow, white and turquoise.

A. G. A. Tested and Approved

SOME OF WINCROFT'S OUTSTANDING FEATURES

Electric Clock with 4-hour Timer • Robertshaw Automatic Oven Control • Perma-View Non Fog Glass Oven Door • Two-piece Broiler Pan and Grille • Porcelain Enamel Outdoor Jacket • Lifetime Cast Iron Burners • Porcelain Enamel Burner Box • Many other features.

Write for full information

DISTRIBUTORSHIPS AVAILABLE IN SOME CHOICE TERRITORIES

Quality with Economy Since 1856

THE STOVE WORKS, INC.
Middletown, Pennsylvania
Convenience-quality-color! Huge Visualite oven, eye-level controls, every major gas or electric cooking feature that women want. Six warmly beautiful colors to blend with your kitchen decor — 14 different surface arrangements. Ovens, surface units interchangeable. All fit standard cut-outs.

Offer **Tappan** gas or electric built-in ranges ... plus the complete Tappan package

**Dishwashers**  **Disposers**  **Refrigerators**

ALL **Tappan** APPLIANCES MAY BE COLOR MATCHED

MAIL POSTCARD TODAY!

**Sinks**  **Range Hoods**

**BUSINESS REPLY MAIL**
First Class Permit No. 3 (C.F.R. 34.9), Mansfield, Ohio

THE TAPPAN COMPANY
Dept. AB 4-1
Mansfield, Ohio

Attention: Mr. Ken Berkey


HOW TO SELL MORE HOUSES: IDEA #2

Offer the TAPPAN '400'... most exciting range made today!

11:00—wiring, vent roughed in
11:05—base cabinet in place
11:20—set and wires connected
11:30—soup's on!

Please supply me with complete specification, installation and model information on Tappan:

Built-in gas ranges [ ] Built-in electric ranges [ ]
Electronic ranges [ ] Built-in refrigerators [ ] Built-in dishwashers [ ]
The 'Fabulous 400' and the 'Debutante 400' [ ]

Name ____________________________________________
Address ____________________________________________
City __________________________________________ Zone ____ State ______

You’ll save up to $166 on installation costs!

<table>
<thead>
<tr>
<th>Save*</th>
<th>Single conduit connection</th>
<th>$25.00</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No separate vent or hood</td>
<td>$50.00</td>
</tr>
<tr>
<td></td>
<td>No countertop covering</td>
<td>$20.00</td>
</tr>
<tr>
<td></td>
<td>No oven cabinet needed</td>
<td>$45.00</td>
</tr>
<tr>
<td></td>
<td>Labor saving</td>
<td>$26.00</td>
</tr>
</tbody>
</table>

*Savings approximate $166.00

GAS, ELECTRIC, ELECTRONIC...
Nothing cooks or looks like a

TAPPAN

Mansfield, Ohio • Montreal, Quebec
### Suggested Exterior Color Schemes

<table>
<thead>
<tr>
<th>If the roof of the house is</th>
<th>GRAY</th>
<th>GREEN</th>
<th>RED</th>
<th>BROWN</th>
<th>BLUE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>You can paint the body</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>Gray</td>
<td>Cream yellow</td>
<td>Pale green</td>
<td>Dark green</td>
<td>Beige</td>
</tr>
<tr>
<td>Cream-yellow</td>
<td>Dull red</td>
<td>Pale green</td>
<td>Beige</td>
<td>Dull red</td>
<td>Blue</td>
</tr>
<tr>
<td>Dull red</td>
<td>Cream-yellow</td>
<td>Pale green</td>
<td>Beige</td>
<td>Dull red</td>
<td>Blue</td>
</tr>
<tr>
<td>Light green</td>
<td>Cream-yellow</td>
<td>Pale green</td>
<td>Beige</td>
<td>Dull red</td>
<td>Blue</td>
</tr>
<tr>
<td>Dark green</td>
<td>Cream-yellow</td>
<td>Pale green</td>
<td>Beige</td>
<td>Dull red</td>
<td>Blue</td>
</tr>
<tr>
<td>Grey-green</td>
<td>Cream-yellow</td>
<td>Pale green</td>
<td>Beige</td>
<td>Dull red</td>
<td>Blue</td>
</tr>
<tr>
<td>Blue-green</td>
<td>Cream-yellow</td>
<td>Pale green</td>
<td>Beige</td>
<td>Dull red</td>
<td>Blue</td>
</tr>
<tr>
<td>Light blue</td>
<td>Cream-yellow</td>
<td>Pale green</td>
<td>Beige</td>
<td>Dull red</td>
<td>Blue</td>
</tr>
<tr>
<td>Dark blue</td>
<td>Cream-yellow</td>
<td>Pale green</td>
<td>Beige</td>
<td>Dull red</td>
<td>Blue</td>
</tr>
<tr>
<td>Blue-gray</td>
<td>Cream-yellow</td>
<td>Pale green</td>
<td>Beige</td>
<td>Dull red</td>
<td>Blue</td>
</tr>
<tr>
<td>Violet</td>
<td>Cream-yellow</td>
<td>Pale green</td>
<td>Beige</td>
<td>Dull red</td>
<td>Blue</td>
</tr>
<tr>
<td>Brown</td>
<td>Cream-yellow</td>
<td>Pale green</td>
<td>Beige</td>
<td>Dull red</td>
<td>Blue</td>
</tr>
<tr>
<td>White</td>
<td>Cream-yellow</td>
<td>Pale green</td>
<td>Beige</td>
<td>Dull red</td>
<td>Blue</td>
</tr>
</tbody>
</table>

### What to use...and where

<table>
<thead>
<tr>
<th>Black dot indicates that a primer or sealer may be necessary before the finishing coat (unless surface has been previously finished).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clapboard Siding</td>
</tr>
<tr>
<td>Brick</td>
</tr>
<tr>
<td>Cement &amp; Cinder Block</td>
</tr>
<tr>
<td>Asbestos Cement</td>
</tr>
<tr>
<td>Stucco</td>
</tr>
<tr>
<td>Natural Wood Siding &amp; Trim</td>
</tr>
<tr>
<td>Metal Siding</td>
</tr>
<tr>
<td>Wood Frame Windows</td>
</tr>
<tr>
<td>Steel Windows</td>
</tr>
<tr>
<td>Aluminum Windows</td>
</tr>
<tr>
<td>Shutters &amp; Other Trim</td>
</tr>
<tr>
<td>Canvas Awnings</td>
</tr>
<tr>
<td>Wood Shingle Roof</td>
</tr>
<tr>
<td>Metal Roof</td>
</tr>
<tr>
<td>Coal Tar Felt Roof</td>
</tr>
<tr>
<td>Wood Porch Floor</td>
</tr>
<tr>
<td>Cement Porch Floor</td>
</tr>
<tr>
<td>Copper Surfaces</td>
</tr>
<tr>
<td>Galvanized Surfaces</td>
</tr>
<tr>
<td>Iron Surfaces</td>
</tr>
</tbody>
</table>

### Tips on Color

<table>
<thead>
<tr>
<th>If you have:</th>
<th>And you want:</th>
<th>Do this:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue</td>
<td>Dark Blue</td>
<td>Add Black</td>
</tr>
<tr>
<td>Blue</td>
<td>Light Blue</td>
<td>Add White</td>
</tr>
<tr>
<td>Green</td>
<td>Deep Green</td>
<td>Add Blue or Black</td>
</tr>
<tr>
<td>Green</td>
<td>Light Green</td>
<td>Add Yellow or White</td>
</tr>
<tr>
<td>Green</td>
<td>Olive</td>
<td>Add Blue and Red</td>
</tr>
<tr>
<td>Orange</td>
<td>Brown</td>
<td>Add Blue</td>
</tr>
<tr>
<td>Red</td>
<td>Dark Red</td>
<td>Add Black</td>
</tr>
<tr>
<td>Red</td>
<td>Light Red</td>
<td>Add Orange</td>
</tr>
<tr>
<td>Red</td>
<td>Brown</td>
<td>Add Green</td>
</tr>
</tbody>
</table>

### Primary and Secondary Mixtures

- Red plus Yellow makes Orange
- Yellow plus Blue makes Green
- Blue plus Red makes Purple
- Orange plus Green makes Citron
- Green plus Purple makes Olive
- Purple plus Orange makes Russet

(Try a small sample first for desired color)

### Natural Finishes

The following are natural-finish systems for outdoor use on redwood. **WATER REPELLENTS**: Easy to apply. Easy and inexpensive to maintain. No special preparation required prior to refinishing. Field experience indicates that paintable water-repellent preservatives provide the most satisfactory natural treatment for exterior redwood. Products meeting requirements of Federal Specifications TT-W-572 should prove satisfactory. **BLEACHES and FLAT-PIGMENTED STAINS**: Easy to apply. Easy and inexpensive to maintain. No special preparation required prior to refinishing. While these finishes give good service when applied to dressed surfaces, they may be expected to last over twice as long when applied to sawn surfaces. **GLOSSY STAIN-AND-CLEAR COMBINATIONS** and **GLOSSY CLEARS**: These are film-forming finishes and must be applied carefully to a properly prepared surface in order to obtain satisfactory results. If these finishes are used in protected locations, they may be expected to give good service. They should be used on exposed areas only with the realization that they may be expected to require maintenance in less than two years and that, after one or two maintenance coats, special surface preparation, involving complete removal of the old finish, probably will be required. For complete information and recommended products, write to the California Redwood Assn., 576 Sacramento St., San Francisco 11, Calif.

For additional information on natural finishes, see FHA Minimum Property Standards, Section 910, Painting and Decorating, or write The National Paint, Varnish and Lacquer Assn., 1500 Rhode Island Ave., N. W., Washington 5, D. C.
PAINTS, FINISHES, WATERPROOFING
Waterproofing and Dampproofing

Foundation walls and drainage systems are crucial for preventing water damage. The image illustrates the installation of drainage systems, including drain tiles, coarse gravel, and concrete or blast-furnace slag. The text provides guidance on the installation of these systems, emphasizing the importance of proper alignment and protection against ground or surface water.

**FHA REQUIREMENTS**

Foundations or footing drains connected to a positive outfall shall be provided around foundations enclosing basements or habitable spaces below grade. Install at or below area to be protected.

Clay or concrete drain tile shall comply with ASTM C-4 or ASTM C-412, or tile may be asbestos cement or bituminized-fiber pipe.

Drain tile shall be installed having a minimum slope to outfall of 1/2% per cent (approximately 1 inch in 20 feet). Protect top of joints in drain tile with 6 to 8 inches of coarse gravel or crushed rock or blast-furnace slag. Provide approximately 2 inches of aggregate material under tile.

Foundation drains may be omitted, when acceptable to FHA field office, in locations where well-drained soil exists or where ground or surface water will not present a problem.

Exterior foundation walls of masonry or of double-formed concrete shall be protected. Joint between foundation and footing should be flashed.

**Masonry water-repellent**

**Specifications**

- **Material**
  - Shall be a clear, colorless solution in mineral thinner and shall have a flash point of not less than 80 °F. It shall have a solids content of not less than 5%, of which 100% shall be silicone resin.

  - The water-repellent material shall not have an obnoxious odor or color in the container or during application. It shall be of such consistency that it may be applied readily at sub-freezing temperatures, and shall leave no visible film after application.

- **Scope**
  - It shall be used on all exterior above-grade masonry surfaces such as concrete, brick, stucco, concrete block, porous tile, stone and mortar joints in all types of masonry structures.

- **Surface preparation**
  - Clean all surfaces to be treated until free of dirt, excess mortar, loose particles and all other foreign material. Remove salt deposits from previous efflorescence, by washing with muriatic acid, followed by thorough flushing with water. Grease or oil stains may be removed with mineral solvents, caustic cleaning compounds or detergent solution, followed by rinsing with clear water. Repaint all joints where mortar is loose or missing. Repair all holes and cracks larger than hairline. If surfaces to be treated have been wetted by rain or copious amounts of water in the cleaning process, at least two days drying, under favorable conditions, should be allowed before application of the water repellent.

  - **Application**
    - Preferred application is by low spray, not exceeding 10 psi at the gun and the lowest possible fluid pressure that will maintain a continuous flow of material. Keep nozzle of gun approximately 6 inches from the wall and make final pressure adjustment to completely eliminate or minimize splashing and formation of a mist or fog. The water repellent should be flooded on to the surface to the point of maximum absorption, as indicated by a run-down of six to twelve inches or more, depending upon the denseness of the masonry. Application should be made at the rate of 75-100 square feet per gallon on masonry of normal porosity. On dense masonry which will not accept and absorb the water repellent at that rate, the coverage may be extended to a maximum of 175-200 square feet per gallon. In such situations, two coats may be desired. At least two to four hours under good drying conditions should be allowed between coats.

  - **Safety precautions**
    - Overspray or splashing on other exterior oil or water based paints is harmless and may be left without damage. The water repellent may be removed from glass or hardware at any convenient time with a cloth dampened with paint thinner.

  - **Precautions**
    - A dilute water-repellent solution prepared as indicated under "Material" constitutes no more of a hazard than any ordinary architectural paint when normal precautions are taken and "good housekeeping" is practiced. Because of the high-solvent concentration, prolonged breathing of vapors should be avoided and the usual precautions against fire should be observed. When spraying the water repellent, even at the recommended low pressures, the operator should be protected with goggles and a respirator that will prevent the passage of solvent mist or fog, which, when inhaled, is very toxic.

  - **Conclusion**
    - Courtesy: General Electric Co.
**GENERAL DATA**

Resistance to the flow of heat through insulation installed in a wall, roof or slab is so much greater than that of other elements in the construction of a building that condensation may result in this insulation. Most insulations block heat but pass vapor. A simple prevention to condensation is to stop the flow of water vapor with some surface material that is impervious to moisture. Such a surface is called a vapor barrier. Vapor barriers are made from a variety of materials. They should be installed on the warm or interior side of walls and roofs; and they should be next to or part of the insulation. Since vapor behaves as a gas, the barrier should be airtight or as nearly so as possible. Permeability of vapor barriers is measured in Perms. A Perm equals the grains per sq. ft. per hr. per in. of mercury difference in vapor pressure at standard test conditions.

**VENTILATION AND BARRIER REQUIREMENTS TO PREVENT CONDENSATION**

<table>
<thead>
<tr>
<th>CONDENSATION ZONES</th>
<th>TYPE OF ROOF</th>
<th>TOTAL FREE AREA OF VENTILATION</th>
<th>VAPOUR BARRIERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZONE 1</td>
<td>FLAT ROOF</td>
<td>1/300 Uniformly distributed at eaves. Free circulation through all spaces required</td>
<td>Required on warm side in top story ceiling.</td>
</tr>
<tr>
<td></td>
<td>CABLE ROOF</td>
<td>1/300 At least 2 louveres on opposite sides near ridge.</td>
<td>Required on warm side in top story ceiling.</td>
</tr>
<tr>
<td></td>
<td>HIP ROOF</td>
<td>1/300 /600 uniformly distributed at eaves &amp; 1/600 at ridge with all spaces interconnected.</td>
<td>Recommended on warm side in top story ceiling.</td>
</tr>
<tr>
<td></td>
<td>GABLE ROOF</td>
<td></td>
<td>Considered unnecessary.</td>
</tr>
</tbody>
</table>

*The figure given indicates that the clear opening of vents totaled should be 1/300 of the bldg. area at eave line. Only 10% of given figure necessary if bsmt. has slab, or crawl space earth covered with 552 felt lapped 2".*

**MATERIAL PERMEABILITY DATA**

Forest Products Laboratory lists, in Perms, the water vapor permeability of various building materials as follows:

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>WV Transmission Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheathing and Roofing Products</td>
<td>2.555</td>
<td>3.847</td>
</tr>
<tr>
<td>15-lb. sheathing paper</td>
<td>1.560</td>
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<td>Paraffin coating, 1 side</td>
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<td>Single infused, ribbed</td>
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<td>Asphalt saturated, one side glossy</td>
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<td>30-120-30 untreated, reinforced</td>
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<td>Duplex paper-coated both sides with reflector's material</td>
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<td>Duplex paper-covered with aluminum foil one side</td>
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SAFETY SUPPLIES

- Economical — 1/2 the cost of paints.
- Require no priming coat; are easier to apply and maintain.
- Need no thinning; surfaces need no scraping or sanding.
- Trouble free — no cracking, blistering, or peeling.
- Penetrate deeply, dying and preserving the wood fibers.
- Enhance the beauty of the wood grain; leave no brush marks.
- Offer unique color effects in a wide color range.
- Grow old gracefully, may be stained or painted over later.

For best results, the best in Stains...

CABOT'S OFF-BASE or CREESE Base Stains.

Samanuel Cabot INC.
424 South Terminal Trust Bldg., Boston 10, Mass.
Please send color cards on Cabot's Stains.

290

Turn to Section 3
# TOOLS, EQUIPMENT

## Power Tool Wire Data

### Recommended Extension Cord Sizes for Use with Portable Electric Tools

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<th>Name-plate Amperes</th>
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### Notes:
- Wire sizes shown are A.W.G. (American Wire Gauge).
- Table courtesy of Thomas Y. Crowell Co.

# TYPICAL RUNNING CURRENT REQUIREMENTS OF MOTORS

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**C** — Full Rated Load Current in amperes (Amperes while starting are MUCH higher).

**W** — Minimum Wire Size permitted by Code; larger sizes often required — Check Distance for Voltage Drop.

**A.P.R.I.L 1961**
## LETTER SIZE DRILLS

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## NUMBER SIZE DRILLS

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## TAP DRILLS FOR THREADS OF AMERICAN STANDARD FORM

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## AMERICAN BUILDER
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<td>1/8&quot;</td>
<td>3/32&quot;</td>
<td>1/16&quot;</td>
<td>3/32&quot;</td>
<td>1/16&quot;</td>
<td>5/64&quot;</td>
<td>3/32&quot;</td>
<td>1/16&quot;</td>
<td>5/64&quot;</td>
<td>3/32&quot;</td>
<td>1/16&quot;</td>
<td>5/64&quot;</td>
<td>3/32&quot;</td>
<td>1/16&quot;</td>
<td>5/64&quot;</td>
<td>3/32&quot;</td>
<td>1/16&quot;</td>
</tr>
<tr>
<td>nearest fraction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Abrasive Chart for Use with Portable Sanders

<table>
<thead>
<tr>
<th>WOODS</th>
<th>Roughing</th>
<th>Finishing</th>
<th>Fine Finishing</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAK</td>
<td>2⅛ to 1⅛A</td>
<td>⅞ to 1/OG</td>
<td>2/0 to 4/0G</td>
</tr>
<tr>
<td>MAPLE</td>
<td>2⅛ to 1A</td>
<td>⅞ to 1/OG</td>
<td>2/0 to 4/0G</td>
</tr>
<tr>
<td>BIRCH</td>
<td>2⅛ to 1A</td>
<td>⅞ to 1/OG</td>
<td>2/0 to 4/0G</td>
</tr>
<tr>
<td>WALNUT</td>
<td>2⅛ to 1½A</td>
<td>⅞ to 1/OG</td>
<td>2/0 to 4/0G</td>
</tr>
<tr>
<td>MAHOGANY</td>
<td>2⅛ to 1½A</td>
<td>⅞ to 1/OG</td>
<td>2/0 to 4/0G</td>
</tr>
<tr>
<td>GUM</td>
<td>2⅛ to 1½A</td>
<td>⅞ to 1/OG</td>
<td>2/0 to 4/0G</td>
</tr>
<tr>
<td>CURLY MAPLE</td>
<td>2⅛ to 1½A</td>
<td>⅞ to 1/OG</td>
<td>2/0 to 4/0G</td>
</tr>
<tr>
<td>CYPRESS</td>
<td>2½ to 1½A</td>
<td>½ to 1/0A</td>
<td>2/OG</td>
</tr>
<tr>
<td>INDOAKO</td>
<td>1 ½</td>
<td>½ to 1/0G</td>
<td>2/0 to 4/0G</td>
</tr>
<tr>
<td>F IR</td>
<td>1 ½ to 1A</td>
<td>½ to 1/0G</td>
<td>2/0 to 4/0G</td>
</tr>
<tr>
<td>WHITE PINE</td>
<td>1½ to 1G</td>
<td>1/OG</td>
<td>2/0 to 4/0G</td>
</tr>
<tr>
<td>YELLOW PINE</td>
<td>2 to 1½SA</td>
<td>½G</td>
<td>1/0G</td>
</tr>
<tr>
<td>W ILL O W</td>
<td>2A</td>
<td>½ to 1/0G</td>
<td>2/0 to 4/0G</td>
</tr>
</tbody>
</table>

### Comparative Grading Chart for Abrasives

<table>
<thead>
<tr>
<th>GRAIN SIZE (mesh)</th>
<th>CORUNDUM AND EMERY CLOTH</th>
<th>FLINT PAPER</th>
<th>GARNET, SILICON CARBIDE, ALUMINUM OXIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>320 (very fine)</td>
<td>5/0</td>
<td>7/0</td>
<td>10/0</td>
</tr>
<tr>
<td>240 &quot;</td>
<td>4/0</td>
<td>6/0</td>
<td></td>
</tr>
<tr>
<td>220 &quot;</td>
<td>3/0</td>
<td>5/0</td>
<td></td>
</tr>
<tr>
<td>200 (fine)</td>
<td>2/0</td>
<td>4/0</td>
<td></td>
</tr>
<tr>
<td>180 &quot;</td>
<td>2/0</td>
<td>3/0</td>
<td></td>
</tr>
<tr>
<td>150 &quot;</td>
<td>1/0</td>
<td>2/0</td>
<td></td>
</tr>
<tr>
<td>136 &quot;</td>
<td>0/0</td>
<td>1/0</td>
<td></td>
</tr>
<tr>
<td>120 &quot;</td>
<td>0/0</td>
<td>0/0</td>
<td></td>
</tr>
<tr>
<td>110 &quot;</td>
<td>0/0</td>
<td>2/0</td>
<td></td>
</tr>
<tr>
<td>100 &quot;</td>
<td>0/0</td>
<td>2/0</td>
<td></td>
</tr>
<tr>
<td>90 (medium)</td>
<td>1/0</td>
<td>1/0</td>
<td></td>
</tr>
<tr>
<td>80 &quot;</td>
<td>1/0</td>
<td>1/0</td>
<td></td>
</tr>
<tr>
<td>70 &quot;</td>
<td>1/0</td>
<td>1/0</td>
<td></td>
</tr>
<tr>
<td>60 &quot;</td>
<td>1/0</td>
<td>1/0</td>
<td></td>
</tr>
<tr>
<td>56 &quot;</td>
<td>2/0</td>
<td>2/0</td>
<td></td>
</tr>
<tr>
<td>50 &quot;</td>
<td>1/0</td>
<td>1/0</td>
<td></td>
</tr>
<tr>
<td>40 (coarse)</td>
<td>1/0</td>
<td>2/0</td>
<td></td>
</tr>
<tr>
<td>36 &quot;</td>
<td>2/0</td>
<td>2/0</td>
<td></td>
</tr>
<tr>
<td>30 &quot;</td>
<td>2/0</td>
<td>2/0</td>
<td></td>
</tr>
<tr>
<td>24 (very coarse)</td>
<td>2/0</td>
<td>2/0</td>
<td></td>
</tr>
<tr>
<td>20 &quot;</td>
<td>2/0</td>
<td>2/0</td>
<td></td>
</tr>
<tr>
<td>16 &quot;</td>
<td>2/0</td>
<td>2/0</td>
<td></td>
</tr>
</tbody>
</table>

### Symbols:
- G—Garnet for soft wood.
- A—Artificial for hard wood.
- SA—Spaced for paint or varnish.

From "How to Use Portable Power Tools" by Maurice H. Reid, Thomas Y. Crowell Co., Publisher.
TOOLS, EQUIPMENT

Tubular Scaffolding

WHAT'S AVAILABLE

Rolling scaffolding . . . generally is built up into towers of varying heights set on steel casters. One of their prime features is that they straddle aisles, walks or equipment while they are being moved around a job.

Scissor scaffolding . . . can set a workman at a variety of stations. It is generally raised and lowered by pneumatic, hydraulic, and screw jacks. But some types are raised and lowered by hand and held positioned by bolts.

Adjustable work platforms . . . are made up of tubular steel scaffolding frames that can be built up or broken down to create a variety of fixed heights. These are engineered for easy erection, dismantling and stacking.

Suspended scaffolding . . . hangs by cables from outriggers anchored to a building. A hand or power winch raises and lowers them. They most frequently are seen in operation on multi-story buildings.

HOW TO HANDLE THEM SAFELY

- Make certain they have sufficient underpinning in addition to base plates when erecting them on soft ground.
- Compensate for uneven ground with adjustable base plates.
- Always level and plumb scaffolding thoroughly.
- Don’t force braces to fit. Badly fitting braces usually indicate scaffolding isn’t level.
- Check the cam lever on braces to make certain it is in a “down” position.
- Prevent scaffold structure from racking with horizontal braces.
- Check stack locks at the base of each panel leg to see that it engages holes in the stack coupling of panels.

ANCHOR running scaffolding every 30 ft. of length and every 25 ft. of height.
- Regardless of scaffold height, install guard rails.
- Don’t let workmen climb cross braces. Provide scaffold ladders when not using ladder panels.
- Make certain scaffold planking is sound.
- Don’t tie putlogs together on spans longer than 21 ft.
- Handle rolling towers with care. Guy them when in use, lock caster brakes, and move them with care.
- Don’t shore concrete decks with scaffolding until you first determine what loads and stresses are involved.
- Keep all rolling equipment in good repair.
- Discard or repair damaged or deteriorating scaffolding.
- Follow your local safety codes and regulations.

GENERAL SPECIFICATIONS

Elyria grade steel is the metal most commonly used in tubular scaffolding. Other steels used are aluminum, magnesium, mild and carbon steels.

Tubing for scaffolding generally measures 1.625 in. in diameter. This standardized size permits the stacking of scaffolding made by different manufacturers.

The scaffolding generally is made up in panel frames of 5-ft. widths unless they are designed for some special purpose. The 5-ft. panel can carry six 2x10-in. edge-planed planks between its leg posts, to make up a standard-width scaffold platform. Panel heights vary from 1-ft. extension members to 10-ft-high walk-through members. Standard panels measure 5 ft. wide and 6½ ft. high, though 4x4½-ft. frames are available. Usually, frame heights graduate in 1-ft. increments except where they are made for special purposes.

Governing frame spacing and brace lengths are the plank spans. Considered most practical and economic spacing: 7 ft.—when 2-in. planks are used. Shorter spacing is usually reserved for shoring and heavy loading. Employing 3-in. planks makes longer spacing of frames possible.

Bracing that goes into scaffolding can be both single and double. Staggering diagonal bracing between frames omits double bracing and serves light loading purposes. Double bracing forces leveling of frames, offers greater stiffness, and will serve as single tower frames, shoring, and elevator frames.

Inserting casters under the legs of rigid scaffold frames converts the structure into a rolling tower generally employed for interior work, concrete decks, and special shoring. Such towers will also be found in masonry and mechanical installations.
Turn more jobs into low-cost jobs with new John Deere 1010 Wheel Power

Now ready to roll onto your building or earthmoving jobs, new John Deere Wheel Units are powered right, priced right for economical work.

New "1010" wheel tractors are engineered for all-around service, designed as the low-cost answer to earthmoving, material handling, landscaping and utility work. New 40 h.p. four-cylinder gasoline and Diesel engines operate efficiently through the full throttle range for top performance on any job. Deere equipment, including loaders, backhoes, rear blades, landscape tools and mowers provides full versatility.

The John Deere "1010" Wheel Loader is a compact, fast-handling unit well suited to general building work. Five forward speeds and power steering insure easy handling, full maneuverability. Turning radius is only 8 feet 8 inches.

Your John Deere dealer will be glad to demonstrate and give you the information you need on John Deere's "New Generation of Power." He's ready to explain the advantages of the John Deere Credit Plan and long-term leasing, too. Contact him through the classified telephone directory or write today to John Deere, 3300 River Drive, Moline, Illinois.
for the best practical applications for an
we‘ll give you

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OF HUNDREDS OF
USES FOR ONAN
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Standby electric power for
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and Pipeline Distribution
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Iron Lungs

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Soft Ice Cream Vans
Airport Runway Lighting
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Fire Dept. Lights, Tools
Police Radar,
Lights, Communications
Oil Exploration
Mining Equipment
Pipeline Distribution
House Trailers
Magnet Generators
Home Builders, Carpenters
Highway, Dam,
Bridge Construction
Electric, Telephone,
Gas Utilities
Cemetery Maintenance
Golf Course & Park Maintenance
Electricians
X-Ray Equipment
Bookmobiles

Marine power for
Pleasure Boats
Work Boats

Auxiliary power for lights, communications,
appliances on Work and Pleasure Boats.

Portable power for pipeline X-Ray equip-
ment, lights, tools and communications.

On-site power for construction tools, lighting
in areas beyond mainline service.

Portable power for municipal mainte-
nance equipment; tools, floodlighting.

Standby for critical processes in chemical,
ceramic, and other manufacturing plants.

Line repair power and standby for elec-
tric, telephone, and gas utilities.

Provides power for lights, cooling, fudge
heaters, fans for manufacturing ice cream vans.

Critical electric power for Civil Defense
communications and lighting.
Onan Electric Plant that have never been used before
an Onan plant free

We'll give a 1,000-watt air-cooled Onan* (shown below) for each of the ten best applications for an Onan plant that have never been used before. Your idea can apply to any size or type Onan plant—from 500 watts to 230 kw—gasoline or diesel, air or water cooled.

In 1926, when Onan pioneered with the “Ten-Lite”—a 250-watt d.c. plant—there was a clear-cut need: enough power to burn ten electric lamps in hundreds of thousands of homes without electric utility service.

Today, this market is virtually non-existent in the United States. But hundreds of new uses undreamed of in 1926 have increased the need for electric generator sets each year. Thus, because men with ideas continue to find new uses for packaged electric power, Onan continues to build more plants than any other manufacturer.

Quite often, we never know who had the original idea for a new application. And, we're sure, Onan plants are used today in ways we've never heard about. If you have an idea for a new use, it may be helpful to you to see Onan plants at your local distributor. He's listed in the Yellow Pages in every major city. Or, write Onan for free literature.

*You may submit as many ideas as you wish, but no more than one Onan plant will be awarded to an individual. There are no restrictions on form of entry . . . you may submit photographs, sketches or a written statement of any length you desire. Onan will judge all entries on the basis of originality, practicality and commercial utility, and decisions of the judges will be final. If the same suggestion or similar suggestions are made by more than one entrant, the first one submitted, according to the postmark, will be eligible for the prize. Winners will be notified on or before July 15, 1961. Entries must be mailed to “New Uses Contest,” address below, and must be received not later than June 15, 1961. All ideas submitted become the property of Onan and, whether or not the entries receive an award, may be used commercially by Onan in any way it sees fit with or without acknowledgment of the originator. No entries can be returned.

Here's the 1,000-watt Onan electric plant you may win for submitting your idea. Ideal for summer cottage, home standby . . . dozens of portable power uses. Don't put it off . . . send in your idea right away!

Onan
World's Leading Builder of Electric Power Plants

ONAN DIVISION, STUDEBAKER-PACKARD CORPORATION 2545 UNIVERSITY AVENUE S. E., MINNEAPOLIS 14, MINNESOTA

APRIL 1961
From 21½ ft up...to 13¼ ft down and everywhere on the ground

International equipment helps you cut building costs!

Thousands of building contractors have proved that they save time, money, and manpower by owning their own International® industrial tractors and equipment.

Jobs stay on schedule. Grading, trenching, and landscaping are completed right now when you have your own equipment available. Often, all of these jobs, as well as an infinite variety of materials handling, can be kept on schedule with a single International tractor.

From foundation to roof, make further savings with an International tractor, equipped with fork lift. Just one man with this low-cost unit can keep several crews of carpenters, masons, roofers, and plasterers amply supplied with materials.

No matter what your annual construction volume, rugged, dependable International equipment can frequently pay for itself in just a few months. Even if you rate yourself a “small” builder, your savings in manpower and avoidance of delays can help you preserve your profit margin. For the small investment required, you can even afford to let your equipment stand idle part of the time—or use it for subbing on larger projects.
Clam on to objects too big for a conventional bucket with the International Drott T-340 Four-in-One. It combines clamshell, bucket, bulldozer, and scraper in one 3/4-yard machine for little more than the price of a conventional loader.

Grade building sites, backfill, landscape, level for slabs, streets, sidewalks, and driveways with the 47 hp T-340 and big 85-inch Bullgrader®. Blade angles and tilts under full hydraulic control from the tractor seat, on-the-go.

Do more with your front-end loader! Switch from bucket... to crane... to fork lift

Nothing beats a front-end loader for all around convenience. Use the bucket to carry loose or bulky materials, such as pipe, as well as for digging, grading, and loading. Big, broad-base pneumatic tires carry the tractor over rutted or muddy terrain. Then, get still more service out of your investment—simply remove the bucket and replace with crane or fork lift in five minutes or less. Same lift arms are used for all attachments. Concrete bucket and tilt and angle blades are also available.

<table>
<thead>
<tr>
<th>Model</th>
<th>Max. Engine capacity, lb.</th>
<th>Digging Capacity, lb.</th>
<th>Front Lift, height feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-275</td>
<td>38</td>
<td>1,400</td>
<td>10 ft.</td>
</tr>
<tr>
<td>T-240</td>
<td>40</td>
<td>1,300</td>
<td>10 ft.</td>
</tr>
<tr>
<td>T-340</td>
<td>47</td>
<td>1,600</td>
<td>12 1/2 ft.</td>
</tr>
<tr>
<td>T-340</td>
<td>47</td>
<td>3,500</td>
<td>10 ft.</td>
</tr>
<tr>
<td>T-460</td>
<td>61</td>
<td>2,500</td>
<td>12 1/2 ft.</td>
</tr>
<tr>
<td>T-560</td>
<td>72.5</td>
<td>3,000</td>
<td>13 1/2 ft.</td>
</tr>
<tr>
<td>T-660</td>
<td>93</td>
<td>4,000</td>
<td>12 or 14</td>
</tr>
</tbody>
</table>

*Corrected to standard conditions
#Diesel engine available

Avoid costly under- or over-powering. Your IH dealer offers six tractor power sizes, with matched equipment, priced to fit your jobs. Ask for an on-the-job demonstration!
SEEN IN ALL THE WORST PLACES

They keep showing up in places most trucks can’t get to because it takes an awful lot to stop these sure-footed Chevy four-wheel-drive models! Where the job calls for the mobility of a mountain goat teamed with the stamina of a mule, you’ll find no finer way to get your work done. And for 1961 the Chevrolet 4-wheel drive lineup is a full dozen models long. You can pick from a wide selection—one that’s sure to include the best answer to your toughest traction-plus requirement!

Put any one of these 4-wheel drive Chevies on any job—then watch it dig in and go! Come what may in the way of mud, snow, sand, loose gravel, creek bottoms, swampland or freshly plowed ground, you can rest assured that the extra bite of up to double traction—plus stump-jumping road clearance—will get you through every time.

And you’ll like the way a Chevy 4x4 rolls down the highway in smooth 2-wheel drive, ready to give you 4-wheel traction at the flick of a lever, the moment you need it. You’ll appreciate the no-clutch shifting ease of the transfer case (whether moving or standing still) and the extra versatility that’s yours with a choice of 4-wheel direct or underdrive.

If you prefer the extra snap of spirited V8 power, it’s yours at nominal extra cost in any model. Also available at extra cost are heavy-duty 3-speed and 4-speed transmissions and a wide choice of traction tires. You can tailor your Chevy 4 x 4 to fit your needs exactly. Get the full details and turn your traction problems over to Chevy—the traction champ of them all!... Chevrolet Division of General Motors, Detroit 2, Michigan.

<table>
<thead>
<tr>
<th>FLEETSIDE</th>
<th>STEPSIDE</th>
<th>CHASSIS-CAB</th>
<th>PANEL</th>
<th>CARRYALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Max. Load</td>
<td>Body Length</td>
<td>Model</td>
<td>Max. Load</td>
</tr>
<tr>
<td>K1434</td>
<td>1400 lb.</td>
<td>66&quot;</td>
<td>K1404</td>
<td>1450 lb.</td>
</tr>
<tr>
<td>K1534</td>
<td>1300 lb.</td>
<td>66&quot;</td>
<td>K1504</td>
<td>1350 lb.</td>
</tr>
<tr>
<td>K2534</td>
<td>2950 lb.</td>
<td>66&quot;</td>
<td>K2504</td>
<td>3050 lb.</td>
</tr>
</tbody>
</table>

Please send complete Name:

INFORMATION ON THE

Chevrolet 4-Wheel

Drive Lineup to:

Send coupon today

1961 CHEVROLET STURDI-BILT TRUCKS

APRIL 1961
How many times have you wished you could reduce wasted-hours of costly hand-labor...eliminate overtime and still keep jobs on schedule? Now you can cut these costs by mechanizing your digging, loading, backfilling, grading and materials-handling with an economy-priced Case 430 Utility Loader. One man and a Case 430 outworks a crew of hand laborers...speeds building and clean-up, boosts productivity of skilled men by always keeping building materials within easy reach.

Here's another cost-trimming idea: Get lower bids from your mason, carpenter, roofer, plasterer and other subcontractors, by making arrangements in advance for your Model 430 Loader to lift, carry and position their materials for less hand-handling and ladder-climbing.

"Handyman" for less than $6.00 per day. You can own a 430 tractor-loader with rear hitch and counterweight box for as little as $118.00 per month*. Powered by Case-built high-torque gas or diesel engine, the 430 Loader cuts grades quickly, digs heaped bucketloads fast, maneuvers smoothly in close quarters, high-lifts for quick dump-and-go when loading trucks. You can quickly remove the bucket and install a pallet fork or dozer, crane boom or snow bucket for specialized materials-handling. You can also equip the 430 with a 10' rear backhoe to dig small-home basements...footings for slabs, porches, or garages...do your own trenching to cut bids on plumbing and heating, electrical work.

Try a Case 430 on your work. See how it mechanizes more of your materials-handling for lower "work" costs...saves expenses on a wide variety of dirt work. Call your Case Dealer for free demonstration. Or write for full information to J. I. Case Co., Racine, Wis., Dept D1401.

*Installment payment after average down payment or trade-in, with gasoline engine, 11 cu ft bucket, f.o.b. factory. Price subject to change without notice.
FROM THE MOMENT YOU READ THIS:

Until 9 p.m. June 30th your dealer is offering you these famous Porter-Cable saws at fabulous new "contractor special" prices. Never before so low...probably never again. See your nearest dealer Now!

Two of Porter-Cable's finest heavy-duty saws ... Model 146A, 6½" blade, and Model 115A, 7" blade. Each is built with quality "extras" including famous KickProof Clutch; "no-drag" telescoping guard; precision ball bearings; precision depth and bevel adjustments; heavy-duty controls; perfect balance; wide wrap-around base; heavy machined aluminum castings; hardened helical gears; built-in lubricator; plus many others.

PORTER-CABLE MACHINE COMPANY

SAWS * DRILLS * SANDERS * ROUTERS * SHAPERS * PLANES

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Never before has an instrument-maker offered such lasting accuracy, ease of operation, rugged construction, compactness and utility — combined with prices that start so low! Today's modern construction methods and use of panel walls, components and pre-fabs demand more accurate measurement and more precise alignment. You need a David White Instrument to cut costs and insure accuracy on your building jobs ... see your dealer or mail coupon below for full information!

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David White Instruments Division, P. O. Box 67-A Menomonee Falls, Wis.
Please send descriptive brochure on David White builders instruments.
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Company Name
Address
City, Zone, State

NEW LOW PRICE!
8200 Contractors Transit ... now only $295.00
Lowest-priced transit on the market to offer accuracy to 1 minute of horizontal degree and vertical arc. Twelve-inch, 26-power telescope.

NEW Continental Models ... Start At $29.95!
Six-inch, 8-power telescope, micrometer ring objective focusing, die-cast aluminum alloy construction. Available with special Continental Tripod ($19.50) that extends from 22" to 58".
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8050 Continental Level ... $29.95

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Aluminum alloy construction, enclosed standard and base, 2½ inch telescopes with 18-power magnification, internal rack-and-pinion focusing. Modern tapered fiberglass carrying case.
8060 Level-Transit ... $43.50
8070 Level ... $43.50

8114 Universal 12-inch Builders Level ... $143.50

8300 Universal Builders Level-Transit ... $102.50
A most practical and complete instrument, ideal for checking building and road construction. 26-power telescopes and slits to 5 minutes on horizontal circle or vertical arc.

(Continued from page 290)
SAFWAY
LOW-COST 4 BY 4
STEEL SCAFFOLDING
fits all your needs for residential, commercial and light industrial construction

4-BY-4 SCAFFOLD ADVANTAGES
- Used safely for work to 40 ft. high.
- Waist-level material platforms speed work.
- 4-ft. and 6-ft. high frames have built-in climbing ladder.
- Accessories to fit every job requirement.
- Parts are easy to handle, erect, transport and store.

Sold and rented everywhere

PATENTED PUMP JACKS CUT SCAFFOLDING COSTS 65% Over Old-Fashioned Way

NOW CHUTES CUT CONCRETE PLACING COSTS
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- A special report on the hot new market of retirement housing.
- A special report on how to better plan your housing projects.

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