American Builder

BUILDING PRODUCT
and TECHNICAL GUIDE

WHAT TO USE

A... Structural materials
B... Doors... Windows... Millwork... Floor & Wall Finishes
C... Hardware & Building Specialties
D... Appliances... Electrical Heating & Cooling... Plumbing
E... Tools & Construction Equipment
F... Management & Business Reference... Prefabrication
G... Classified Buying Guide of Products & Equipment

HOW TO USE IT

WHO MAKES IT

APRIL·1957

TWO DOLLARS
Editors of all the leading national women's magazines have praised the NuTone Food Center... as the most exciting appliance in 30 years!

Now... a remarkable Meat Grinder has been added... creating a sensation wherever it has been on display.

We want your wife to see how useful it is in her daily food preparation. We want you to discover its terrific "woman appeal"... as a sales clincher for every new kitchen you're planning. That's why we are making this 60-day offer to all Builders and Architects.

If you would like to have one of these units at below cost for your own home, please write for complete information.

**NUTONE**

Food Center

---

**ONE Motor Operates FIVE Appliances!**

A Meat Grinder + Mixer + Blender + Sharpener + Juicer!
WHEN THE "SPECs" SAY

SPECIFY CLOUD'S OAK FLOORING

Lockwood Oak Flooring has the Nail Groove, a great time-saver because it positions the nail and provides seat for nail head.

Lockwood's exclusive Splinter Clipper eliminates annoying chip or spur... makes laying faster, easier and more economical!

Thanks to Snap Side Match design, Cloud's Lockwood Oak Flooring lays up readily, with final match firm and squeak-free.

Cloud's compartment, fan-type Kiln Drying helps produce oak flooring of permanent uniformity and Cloud's Precision Milling holds sanding to a minimum.

Lockwood OAK FLOORING

It's a careless set of specifications that casually call for "oak flooring" in a new home to be!

Those "specs" should specify!

Cloud's Lockwood Oak Flooring is designed to save you builders plenty in labor costs.

This engineered oak flooring goes down faster, and neither shrinks nor warps nor buckles under normal conditions.

You get easier, more economical installation... and just as important, never a kickback!

Moreover, the beauty of Cloud's Lockwood Oak Flooring is a real sales-clincher. No other oak flooring equals Lockwood for gracious charm and warm, inviting hospitality.

Check the important Lockwood features at left.

And remember, there's a grade for every need, each produced in accordance with N.O.F.M.A. standards.

SEE YOUR LOCAL DEALER

CLOUD OAK FLOORING CO.

SPRINGFIELD, MISSOURI
QUICKER, EASIER
and all ways better
FOR ALL SLIDING DOORS

600 SERIES
FIRST and only packaged sets with all these better features
- Aluminum track with built-in fascia ... etched and anodized. Fits standard head jamb. 1 3/4" headroom. Doors can be hung after hangers are attached.
- Steel hangers with angle-slotted screw holes for easier plumbing of doors.
- Door stop limits sliding action of doors to prevent pinching fingers.
- Twin nylon wheels with oiled-for-life bronze bearings.
- Nylon and steel door guide installed easily with just two screws.

700 SERIES
Similar to 600 Series except track does not have built-in fascia or anodized finish
- Aluminum track ... fits standard head jamb. 1 3/4" headroom. Doors can be hung after hangers are attached.
- Steel hangers with angle-slotted screw holes for easier plumbing of doors.
- Door stop limits sliding action of doors to prevent pinching fingers.
- Twin or single 1" nylon wheels with oiled-for-life bronze bearings.
- Nylon and steel door guide installed easily with just two screws.

NEW! "THRIFTEE PAK" SET
FIRST and only set for BOTH 3/4" or 1-3/8" doors with all these features
- Aluminum track, 1 3/4" headroom. Doors can be hung with hangers attached.
- Big 1" nylon wheels. One piece, husky steel hangers with slotted screw hole for easier plumbing of doors.
- Nylon and steel door guide uses two screws.
- low as $5.50 list

WRITE FOR OUR 24 PAGE CATALOG
See our Catalog in Sweets' Architectural or Light Construction Files

John Sterling Corporation
Formerly Sterling Hardware Mfg. Co.
2345 West Nelson Street, Chicago 18, Illinois
© 1956 JOHN STERLING CORPORATION, CHICAGO
Those extras count

It's becoming more and more evident that today's buyers—especially in large subdivisions—want "extras." At Glasgow Village in the St. Louis area, builder C. T. Wilson installed playground equipment and sponsored a number of ball teams. Other builders left wooded areas for picnic grounds and at least one helped residents install their own swimming pool. Under the sponsorship of builders, community improvement associations were set up to pick up where builders left off.

Tell 'em to sell 'em

Merchandising is the key to the 1957 home-building market. That's the word from two men associated with the industry in diverse fields. Says A. C. Findlay, executive of the Ohio Savings & Loan League: "If home builders practice good merchandising, sell closer to their costs and build homes acceptable to the present needs of buyers, we will be in shape to finance them." Agreeing is E. F. Walsh, promotion director for Structural Clay Products Institute, who urges the use of lawn signs, advertising reprints and book matches to help builders sell brick homes. Advertising is increasingly important in today's tight market. To learn what other builders are doing, see AB's survey feature on page 17.

A much-needed service

Taking a page from the medical profession, HBA of Metropolitan Pittsburgh has established a "land bank" as a service to builders, developers and realtors. All property owners who want to sell their holdings—whether large or small—can notify the association which passes on the information to interested builders. There is no charge for the service which, according to HBA president C. D. Crawford, may serve to "pull together" pieces of property which are unknown to builders and would make good home sites.

Local market conditions

It's always a good idea to be familiar with local statistics before planning your operations. A good way to learn what's happening in your area would be to get a copy of the "'75 Housing Areas 1956 Annual Summary," published by Housing Securities Inc., 250 Park Ave., New York, N.Y. The book, which features selected data on housing, population, economic indicators and mortgage activity, will help you evaluate the housing markets in which you're interested. Cost: $7.50.

After-dark opportunity

With the "fair weather" seasons approaching, builders might consider night openings for their model homes. Many families "take to the road" for an after-dinner ride, especially if crowded roads keep them home on weekends. This idea met with good success on Long Island, N.Y., last year where the builders of Harbor Hill reported that "open hours" until 11:00 P.M. one night each week drew record crowds.

Who are your buyers?

When determining what kind of homes to build, you'd be wise to consider what families are in a buying mood. A recent survey by the University of Michigan's research center showed that families in the above-$5,000-a-year bracket were far more inclined to buy than those in the under $3,000 range. This is good news since more than 40% of all families are included in the $5,000 and over group. The survey also revealed that intentions to buy homes have increased recently.
A misplaced decimal in an estimate can often mean the difference between profit and loss...consequently a figuring machine that will render fast, reliable calculations has become as vital to the home-builder as any other tool he employs. The REMINGTON RAND® Model 99 Calculator That Prints is that sort of Calculator. Printed proof on easy to understand SIMPLA-TAPE means that you can rely on figures as being accurate and rest assured that your estimates aren't getting you in trouble.

On the job from start to finish, the Calculator That Prints is equally valuable to the builder for computing payrolls, extension of bills, tax accounting and all the other figure work that goes with homebuilding.

For illustrated case history that shows further how the Calculator That Prints is aiding the contractor, write for case history CH974. Room 1459, Remington Rand, 315 Fourth Avenue, New York 10.
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B1 Doors—windows—millwork—floor & wall finishes
Acoustical Materials, Built-ins, Glass, Plastic laminates, Structural plastics, Tile.

C1 Hardware & building specialties
Adhesives, Hardware, Fastening devices, Garage doors & Operators, Ornamental Iron, Weatherstripping & Sash balances.

D1 Appliances—electrical—heating & cooling—plumbing & water supply

E1 Tools & construction equipment
Carpenter's tools, concrete forming & placing equipment, Conveyors & hoisting equipment, Earth moving machinery, Portable power tools, Scaffolding, Trucks, Woodworking machinery.

F1 Management & business reference
Business systems & forms, estimating and plan books, Swimming pools, Financing & planning.

F8 Directory of prefabricated home manufacturers

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In April McCall's...

NEW PRE-FAB HOME

Typical of the new ideas for better living in McCall's is the full-color article in the April issue on the three-bedroom pre-fabricated "Sweetbriar" model developed by National Homes as a result of last year's women's conference on housing in Washington.

IN ADDITION, the article lists 70 builder-dealers who are featuring the Sweetbriar. Each of these dealers is being supplied with special merchandising material to assist them in local tie-ins with the McCall's feature.

HOW McCALL'S, THE MAGAZINE OF TOGETHERNESS, CREATES NEW MARKETING OPPORTUNITIES FOR MANUFACTURERS OF ALL PRODUCTS FOR THE HOME

Today, business is more than ever aware of the new role the American woman plays in influencing home building and the sale of furnishings and home equipment.

Naturally, the woman has always had a vital interest in the home. But today she takes on greater responsibility than ever in inspiring the actual buying decisions that involve her family's comfort and enjoyment. The much-publicized housing forum held by the U.S. Housing Administration last year pointed up the importance of women in home-selection and home building as no other single event in recent years.

The woman and her family are living better today than at any time in American history. They have more money to spend—and they are spending it on their homes. They have more leisure time today, too, in which to enjoy their homes. McCall's, by reflecting this changed attitude toward home life through its well-known Togetherness concept of editing, is creating new marketing opportunities for all manufacturers of products for the home.

Each issue of McCall's is a colorful shopping center of ideas and information on everything pertaining to better living for women and their families. Through outstanding editorial features, illustrated in full color, McCall's helps to introduce new products, and create new uses and new customers for established products in the home furnishings, home building, home equipment and home improvement fields.

For your copy of McCall's Home Improvement Pocket Letter, write Dept. AH, McCall's, 230 Park Ave., New York 17, N. Y.

McCall's

The magazine of Togetherness, reaching more than 4,500,000 families
AMERICAN BUILDER

To The Editors:

American Builder
30 Church Street
New York 7, N. Y.

“A Real Service” “A Great Help”

Sirs: Your February issue on “prefabrication” is a spellbinder and I am sure that it will remain on the top of builders’ desks all over the country. I like the comprehensiveness of your story and feel that you have done a real service to the building industry in exposing your readers to the latest developments in this fast growing field.

We have numerous requests throughout the year for information on prefabrication and would like to include a copy of your February issue with the material which we send out in reply to such queries. . . . Please extend the congratulations of PHMI to the members of your staff who worked on this issue.

—Conrad “Pat” Harness, Executive Vice-President, Prefabricated Home Manufacturers Institute, Washington, D. C.

Sirs: Your current issue, as well as articles in several previous issues, have certainly been a great help to us in fabrication in presenting to the builders the advantages offered by this industry.


Sirs: I really enjoyed reading your February issue and its fine editorial on “Prefab is finding its place” and wish to express our thanks for the fine cooperation given us during the past year.

Much to our dismay, however, we are not listed in the section entitled “Prefab catalogs.” As you know, American Houses is one of the oldest prefabricators in the industry. . . . We offer a wide range of models with a turnkey price of approximately $7-10 over $50,000 depending on location.


From Another Section of Our Industry

Sirs: I have intended writing you from day to day to tell you how much I appreciate the wonderful job you did in the February issue with the component story as well as the Lu-Re-Co split-level that is the Weldwood House in Chicago. Once again, you did a beautiful job, and if there is anything I can do at any time to help you with some of your problems, let me know.


Just help us keep posted on how lumber dealers are taking advantage of the Lu-Re-Co idea.

—Azhar ullah Kirmani, Karachi, Pakistan.

Sirs: I have just seen the December issue of the American Builder. Your feature about the 28 selected houses was extremely informative and interesting. The house made by W. G. Best & Co., which has received the Special Merit Award in the Mid American Jubilees, has fascinated me very much. I am about to get a house built for myself and would like to have it built exactly like the house mentioned above. Therefore if you can, please send me its plan and all the other necessary information which I would need. Please also, if possible, send colour photographs of interior decoration and colour schemes. I shall feel highly obliged.

—Azhar ullah Kirmani, Karachi, Pakistan.

Letter forwarded to Mr. Best (with postage stamp removed).

“ Aren’t you jumping the gun a bit, Schultz?”

(By Virgil Partch—Courtesy Pomona Tile Mfg. Co.)
Insulation can be a White Elephant

It can clutter up a building site.
And if it rains before the building's up...!

Storage space at congested building sites is so scanty, that bulky materials must sometimes be left exposed to the weather, even to rain.

Pilferage and congestion cause expensive delays and become annoying problems. With compact, scientific multiple aluminum insulation, a few small 2 cu. ft. cartons, each holding 1000 sq. ft., tucked in a corner of a shed or tool bin, occupy negligible space. They can be taken to the job in the trunk compartment of a passenger car, or carried on a bus. One man can unload a passenger auto holding 10,000 sq. ft., in minutes. But it would take a crew HOURS to unload a freight car holding that much bulky insulation (about 250 bundles).

Light, clean and easy to handle, the average experienced applicator can install about 2,000 sq. ft. of multiple aluminum per day.

RESISTS HEAT AND VAPOR FLOW

Most important is PERFORMANCE: resistance to heat flow winter and summer; resistance to vapor flow and condensation formation which cause peeling paint, stained and crumbling plaster, rotting timber; and the loss of 1060 Btu's of latent heat with each pound of escaping vapor.

Metallic vapor barriers bar excessive passage of vapor from the warm side of walls and ceilings to colder spaces and surfaces, where it often condenses. (Cold air can hold less vapor in suspension than can warm air.) Water, from leaks and from soaking by driven rain, also gets in and evaporates; often recondenses.

Water vapor is a gas with about 1-millionth the density of water at 0°F. The invisible pores and apertures in many seemingly “solid” building materials are wide open spaces for the flow of vapor. Some materials may be waterproof and not vapor-proof. Being metallic, aluminum has almost zero permeability to vapor. Compared to outer walls and roofs, it has much less permeability than the ratio (1 to 5) required for efficient outward flow of vapor.

Aluminum has 97% reflectivity for Radiation, only 3% emissivity and absorptivity; and retards outer and inner Convection. Air spaces have low density, slight conduction.

Obtain MAXIMUM protection against heat loss and condensation with tough, uniform-depth, joist to joist multiple aluminum. It is continuous, up to 750 ft. long, without “breaks” every few feet.

What are the causes of condensation? How can you control it? The National Bureau of Standards brochure: “Moisture Condensation in Building Walls,” helps you with these problems. (Use the coupon for free copy.)

THERMAL VALUES

Infra Type 4 Parallel Insulation

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<tr>
<td>Down-Heat</td>
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+ Calculated on basis of limiting thermal values cited in Fed. Specs. LLL-f-321b; HH-l-585; HH-l-521c; HH-l-551a.

Cost installed between wood joists, material and labor, about 8¢ sq. ft.

Type 6 also available

Can be purchased everywhere through your preferred local dealer.

Infra Insulation, Inc., 525 Bway., N. Y. C. Dept. B-4
Send “Moisture Condensation in Building Walls.”

Name__________________________
Firm__________________________
Address_______________________
The Building Outlook

SMALL TALK
COST CUTTING POSSIBLE

New techniques in home building may be the answer to spiraling costs. One stumbling block, says John K. White, American Houses, Allentown, Pa., is the lack of coordination between architects who design the homes and engineers who design the heating, plumbing and wiring systems that go into them.

WINTER WONDERLAND

You'll soon be able to tell your buyers they can toss away that old snow shovel. A snow melting system consisting of pipe coils can now be built into walks and driveways. Whenever snow falls, a switch is thrown and hot water circulating through the coils will warm the pavement, thereby melting the snow. Tests by the University of Illinois show that it costs only about 6 cents an hour to run the system—cheaper than hiring a boy to do it.

THE RIGHT APPEAL

Whom are you building for? These four categories of home buyers, supplied by Pittsburgh builder Stanley Edge, are a top-notch guide: Rose-covered cottage variety—people with children who want a quiet atmosphere; minimum shelter buyers—people who spend more for food, clothing, etc., than homes need small down-payment terms; fun and frolic group—these include the majority of modern suburbia and need large subdivisions with swimming pools, parks, clubs, etc.; and snob appeal home-seekers—location is of prime importance.

WILL HOUSING LAW CHANGES proposed by the Administration (and under consideration by Congress as AB went to press) do enough for the industry? One significant change would reduce down-payment requirements on FHA mortgages in July 1958—or possibly much sooner if conditions warrant. The new scheme asks for these legal minimums: On the first $10,000 of appraised value, a 4% down-payment; on values between $10,000 and $16,000, a 15% down-payment; anything above $16,000 would call for a 30% down-payment. No change was asked in the legal limit of 30 years repayment terms for government-backed loans.

WHAT WILL HAPPEN TO VA LOANS? No mention was made of the current 2% VA minimum down-payment requirement. However, if the Administration's proposals are adopted it would mean veterans would have to pay at least 4% down when the World War II program expires in July 1958. In effect, the proposals would allow FHA to absorb the GI program, but veterans would have to make higher down-payments.

SHOULD DOWN-PAYMENTS BE EVEN LOWER?

George S. Goodyear, NAHB's president, says they should and also urged that FNMA's special assistance fund be increased by $2 billion "to provide emergency relief in geographical areas and in price ranges where mortgage credit is not now available." But,

HOW LONG WILL BUILDERS HAVE TO WAIT before Congress acts? There's a great deal of debate ahead. Robert Tharpe, legislative director, Mortgage Bankers Assn. of America, says the recommendation (by Goodyear) would "enormously increase the demand for Federal funds for home mortgages." Spokesmen for the American Bankers Assn. and the U. S. Savings & Loan League also testified that expanded federal housing programs would only inflate construction costs.
entirely new and wonderful way to enclose bathtubs and shower stalls

sliding folding tub-shower doors!

Cleaner than a shower curtain • Safer than glass • Lovelier than either!

Now—a really exciting innovation to increase the saleability of your houses—the most convenient shower enclosures ever made! MODERNFOLD'S new "Tub-Master" has every desirable feature that homebuyers want in custom-made shower enclosures; eliminates everything they don't want. (These photos just start the list!) And there's absolutely nothing else like it for glamorizing your bathrooms!

"Tub-Master" comes in beautiful decorator colors that go clear through—won't fade, mildew, chip, flake or peel. It increases the value of the homes you build...helps merchandise them. Call a MODERNFOLD Distributor; he's listed under "Doors" in the classified directory.
Interpretations:  

Conflicting trends are evident in the industry. On one hand, Feb. showed the most serious weakness in housing activity since the general downtrend began late in 1955. (Seasonally adjusted rate fell below 1,000,000 for the first time since Dec., 1951.) On the other hand, total construction of all types set a new national high of $2.9 billion, 3% ahead of last year. Housing demand remained substantial, as measured by vacancy rates.

1. **FAILING TO RISE SEASONALLY**, February starts stayed at the Jan. level of 65,000 (13,000 below Feb., 1956). This indicated a seasonally adjusted annual rate of 940,000, lowest since Spring, 1949.

2. **A NINTH CONSECUTIVE MONTHLY RISE** in hourly earnings brought them 6% above the January, 1956, figures. Unchanged in February, material prices were only 1% higher than a year earlier.

3. **RECORD FEBRUARY OUTLAYS** for total new construction showed a gain of 3% over 1956. There was a 9% increase over last year in public construction. Private spending, excepting housing, was up.
Here's the kind of package you have been looking for—a complete unit ready to pop right into the opening, leaving only the plastering and decorating to be done! Substantial savings in labor costs on each window opening. Trim, modern appearance of window and smooth, quiet, easy sliding and self-locking features provide complete satisfaction to the home owner. Matching Steel Door Frames speed door installations, cost far less than wood and provide your homes with added beauty and sales appeal. Find out about these and other Kewanee Quality Products today!

FREE LITERATURE
A SALES REPRESENTATIVE
NAME
FIRM
STREET
CITY          STATE

Kewanee Manufacturing Company
457 ROMPEL STREET • KEWANEE, ILLINOIS
Other Quality Kewanee Products
- Aluminum Horizontal Sliding Windows With Casings
- Commercial Steel Windows
- Aluminum and Steel Basement Windows, open and glazed
- Steel Mortar Boxes
- Steel Door Frames
- Steel and Aluminum Utility Windows
- Steel Window Sashes
- Steel Panel Doors
- Aluminum Combination Storm and Screen Doors
Tomorrow's House

ALUMINUM: an auditorium today . . . your house tomorrow

You'd have a tough time convincing a client that he should live in an aluminum igloo; yet the structure shown above may be a preview of just exactly that. It is an auditorium seating 1,800 people, built in the Hawaiian Village, Hawaii. The Kaiser Aluminum and Chemical Corp. designed the auditorium, and also made the panels which serve as both the skeleton and the skin.

The basic aluminum panels are diamond shaped and bowed, with a strut across the center. This gives them great rigidity; the finished dome spans 145 feet, is 50 feet high, and will handle loads of better than 100 lbs. per square foot.

The completed dome rests on 25 concrete piers spaced around the perimeter. Provision is made at the intersection of piers and panels to accommodate a 3-inch expansion.

Dome is built around a 96-foot steel tower, shown at the right. A row of panels is bolted on, the entire structure is raised a few feet, and another row goes on. When job is finished, the tower is removed.

Stressed-skin construction, with its minimum use of structural members, has so far been confined in the housing industry, to plywood. Now it seems that aluminum, with its high strength-weight ratio, is serving notice that it's ready to come into its own.
With walls and ceilings heat-proofed with Alfol Aluminum Foil Insulation, these spacious Dallas homes derive "5-ton" performance from 3-ton cooling units. Builder-designer is David Tips, Dallas.

Cost of Air Conditioning these homes cut $400 each with Alfol Insulation!

By boosting air conditioning efficiency with Alfol Aluminum Foil Insulation, Dallas builder David Tips gives his customers year-round comfort in a home they can afford.

Cooling load cut

"Our homes," writes builder Tips, "are big even for Texas. But with Alfol Insulation in walls and ceiling, our air conditioning needs are met with capacity to spare by a 3-ton cooling unit. Having originally priced the 5-ton size, we figure Alfol saves us roughly $400 per house!"

A designer as well as builder, Mr. Tips knows that Alfol is better for him, better for the customer. Its superior year-round efficiency, along with its protection against condensation, makes for better construction all around.

Ideal for air conditioning, Alfol minimizes tonnage requirements...insures low cost operation. Even by itself, Alfol makes a difference your prospects can feel.

Free data book: Why not investigate Alfol for your next job. For comprehensive information as to efficiency, application, availability and cost, send today for your free copy of the new 24-page Alfol data book.

Ease of Alfol installation means extra savings for you

Installation of the Alfol Blanket is fast, positive, virtually foolproof. All you do is staple the flanges—the aluminum foil layers expand automatically. The result: Alfol insulation installs at speeds up to 3,500 sq. ft. per man per day! Whether you install your own insulation or buy it contractor-applied, the extra Alfol speed means extra savings for you.

REFLECTAL CORPORATION
A subsidiary of Borg-Warner Corp.
310 South Michigan Ave., Dept. C-3, Chicago 4, Ill.

Export sales subsidiary:
Borg-Warner International Corp.
36 So. Wabash Ave., Chicago 3, Ill.
HOW TO SPEND PROMOTION $$$

Which ad media pay off in sales?

What kind of advertising pays off best for builders? In today’s tight market, the printed word still reigns as king in attracting buyers to new homes. That’s the consensus of builders surveyed by AB at press time.

Although almost all of them stated that other media also have their place in any good merchandising program, the majority of those replying agreed: What is read in newspapers registers more than what is heard on a radio, or fleetingly seen on a TV screen or read on a billboard while driving along a crowded highway.

Supporting this belief are figures such as those cited by Ralph E. Bruno of Harmony Builders, Inc., Albany, N. Y., who favors display and classified newspaper advertising, but also tried out radio and television. The company conducted a test check of visitors at its model home to find out what medium had brought them out. It was “ten to one in favor of newspapers.” At the time the test check was made, ten TV spot announcements and 50 radio commercials had been run during a one-week period.

“Newspapers reach more people with a longer-lasting effect.” It sounds like the same answer, but it isn’t. That’s the reply from J. Robert Norman, Aurora Development Co., New Orleans, who also feels that television, radio and handbills are important. But, he adds, “best of all, of course, is free word of mouth.”

And, from Denver a builder wired: “We find newspaper display ads most effective per dollar spent and are reducing our TV and radio advertising from 40 per cent to 15 per cent of our merchandising budget.”

Lee P. Campau, Jr., president, Terra Development Corp., Clayton, Mo., goes along with this: “Newspaper rates in this area are considered high. But even so, I feel that newspaper advertising, generally speaking, in our line is still the best. It reaches more people.”

Other builders who agree that newspaper ads are their top method of merchandising:

Forrest Cox Home Builders Inc., Phoenix, Ariz.: “Prefer local newspaper classified section because of wide coverage of our market.”

George W. Walters, Horizon Homes, Inc., Albuquerque, N. Mex.: “We have used all media and find newspaper and radio to be most effective in this area.”

Richard S. Millhollen, Eugene, Ore.: “Favor advertising by newspaper display and classified.” Millhollen finds telephone

Survey continued on next page
classified yellow pages give good coverage for least expenditure and believes some TV and radio advertising is advisable.

Wood McArthur, Little Rock, Ark.: "I favor newspaper classified because of its expediency in reaching active home buyers."

Vincent C. Buck, Western Builders, Inc., Spokane, Wash.: "We favor classified newspaper advertising because we get more sales per dollar invested."

Jack R. Worthman, John R. Worthman, Inc., Fort Wayne, Ind.: "Favor first newspapers and brochures, second, site signs and furnished open houses."

But, there are areas in the country where other media seem to do a better selling job than the newspapers.

Lester Matlock, Wichita, Kan., formerly used newspapers as his top advertising medium.

"Our merchandising consisted of open houses, signs, etc.," he says. "This proved unsatisfactory. We now plan a direct approach—use of hand bills, employment of a highly-trained woman as a public relations officer whose sole job will be to work with women’s clubs to create interest in our models. We also plan to erect model homes and pre-sell, rather than to build speculatively."

Signs on the job get the nod from two builders—Joseph Fleming, Wilmington, Del., and Eveland Brothers, St. Petersburg, Fla. In addition, the Eveland company says newspaper publicity does a good selling job.

Overall outlook

Along with information about which advertising medium does the best job, AB asked builders how much they are spending on merchandising as a whole and whether or not they expect to spend more on advertising this year.

This fact seems clear: Along with everything else, the cost of merchandising new homes has taken an upward turn for most builders.

Western Builders, which allocated 5.3% of its gross sales income to advertising and promotion, anticipates a 75% increase in marketing costs; Aurora Development Co., which budgeted 1 1/2% to 2 1/2% to merchandising, foresees a possible 30% increase due to the tight sales market; Lester Matlock plans an entirely different approach to advertising and expects it to cost 25% more than formerly.

However, the Worthman company, which has been devoting 1 1/2% of its gross sales price to promotion and advertising, does not intend to increase its budget. Says Jack Worthman: "Expect to stretch it by better planning. We need better, not increased advertising."

According to Forrest Cox Home Builders, present sales conditions indicate that no increase in advertising is needed.

Another viewpoint comes from Horizon Homes: "Under present VA and FHA valuations, plus mortgage discounts, we cannot feasibly justify more than 1% of our gross income from sales to

3. Dickerman’s Column... Today’s market has to be

by John M. Dickerman, Executive Director, National Assn.

In this era of intense competition there is more often than not a tendency to sell by "gimmick" rather than by fundamentals. And while few will quarrel with a well thought out and soundly planned "gimmick" as a sales aid, many of us are old-fashioned enough to believe that the best salesman is one who knows and practices his fundamentals.

The Spring selling season for home builders is upon us in many parts of the country. And despite the mortgage drought there will be a lot of new houses to sell. I think, therefore, it might be worthwhile to review briefly some of the fundamentals of selling that are stressed in the Merchandising Short Courses at the National Housing Center.

They sound pretty elementary in print. But, if adhered to, they’ll help you sell your houses.

First, you have got to have something to sell. “Sure,” you say, “I have a house to sell. What do you think I’m in the home building industry for—my health?” So you have a house, probably several of them. But your competitors have them too. Is your house well designed? Is it soundly constructed? Is it attractive? Is it in a location which, for one reason or another such as convenience to schools and shopping centers, or by reason of address (some call it “snob” appeal), is likely to appeal to a good segment of the public in your area? Is it priced competitively? Do you think it offers a sound value to a buyer?

These are pretty simple and basic questions. And my guess is that every builder reading them answered each one with a mental “yes.” Assuming the answers are correct, my next question is: “Are you making plans to assure that these selling points are presented in an attractive way to a potential buyer? It doesn’t help your financial health to tell yourself you have a fine house for sale, but not tell it convincingly to a potential buyer. You and your salesmen—whether in your own organization or of an outside firm—should know and be able to use effectively every selling point of your house.

Secondly, you have to have someone to sell your house to. Elementary? Of course, but vitally important we’ll all agree! But there is more to this than may appear on the surface. The days when lenders were falling over themselves to supply mortgage money on generally accepted terms are long gone.

As many of you have found out to your sorrow, it’s not easy to qualify a borrower, particularly one with a moderate income, in these times of tight money.

The perceptive salesman diplomatically ascertains in advance two things: the features of a house that the buyer (or more often than not, his wife) values most highly, and what he is qualified to pay. The problem is to match a buyer’s desires—what he thinks he should
merchandising.” That’s the same amount they have been using.

There’s no doubt that merchandising and advertising is more important to the industry than ever before. As one Denver builder put it: “Our advertising is considered to be an integral part of our operating plan.”

To learn what two other merchandising-minded builders think, see pages 20 and 21.

“sold”

of Home Builders

have in a house—with his ability to pay. These two factors, more often than not, are pretty far apart.

For one thing, the average buyer wants much more in a house than he is either prepared to pay for, or is capable of paying for. These desires can be trimmed to size by a discerning salesman, but only if the buyer is convinced he is getting his money’s worth in the house offered.

The third point—and this comes only after the other two are satisfactorily taken care of—you have to sell the house. It’s elementary again, but all too many sales are lost by over-selling, by not giving the customer a chance to buy the house when he is ready to take pen in hand. The mark of a good salesman is his ability to do the necessary amount of talking and shut up!

There is, of course, far more to competent merchandising and salesmanship than I have outlined here. Books on the subject would fill a good-size library with plenty of volumes left over. Parenthetically, one excellent way to catch up on fundamentals, obtain new ideas and swap merchandising talk with other builders is to attend the NAHB short courses.

But the principle point I want to make here is that builders are going to have to do a first-class job of merchandising if they are going to sell their product in today’s highly competitive economy. There’s a mad rush on for the consumer dollar by every businessman in the land. The builder who doesn’t merchandise effectively is not going to be building much longer.

Meet the builder

> QUESTION: What would exclusion of appliances from mortgages do to your house sales?

L. R. Latch, Tulsa, Okla.: It would be like removing automatic transmission from automobiles. Large majority of home buyers purchase homes to have new and modern conveniences. It would tend to turn housing backward instead of forward.

Emerson M. Mead, Fort Morgan, Colo.: We build in low-price field, $10-$14,000 and do not offer appliances. Furthermore we do not believe appliances generally should be built into houses less than 1,000-1,100 sq. ft. Low-priced home buyers need space more than appliances.

C. W. Gosnell, Jr., Alexandria, Va.: It would cut sales. Last year we sold 79 homes, average price, $33,000. Despite substantial down-payments, no buyers desired to exclude appliances. Effects would be drastic in lower price ranges using guaranteed mortgages. Many buyers just do not have additional cash.

L. E. Coulter, Portland, Ore.: Most of my houses are 3-bedroom ones, selling for around $12,000. To include appliances raises the sales price, making down-payments and monthly payments higher. This makes houses harder to sell in these days of tight money. Most of my customers have their own appliances.

YOUR SOUNCING BOARD: Let AB know what problems you’d like discussed. Write: Meet the builder.
Must we boost our ad budget to

'YES' says Irving Rose*

The percentage of gross that builders allow for advertising and merchandising just doesn't provide enough funds to do an adequate job in today's market, where we are offering a product that people don't have to buy. . . ."

The home-building industry must do a better, more effective job of merchandising to recapture the volume of business it has enjoyed for the past decade.

Item: Only 12 per cent of the consumer's dollar today is being spent on housing, according to the September 1956 "Survey of Current Business." This is much less than the 25 per cent most economists consider reasonable. Auto, gas, and oil take practically as much.

Item: More than 25 per cent of the average family income is spent on miscellaneous items of a non-necessity nature such as ice cream cones, women, poker games, and home permanents.

Item: More than 77 per cent of all U.S. homes are as outdated as a Model-T Ford. Forty per cent of them were built before 1919. That's just about twice as many homes as we have built since 1945. Think of the condition of the heating plants, plumbing, wiring, and kitchens of these homes.

Obviously, we home builders, and housing generally, are getting only 50 per cent of what we should get. The potential is there; we are just not going after it aggressively enough.

I say the way to do a better job of merchandising is to spend more money. A lot more money.

The auto industry and others which sell directly to the consumer generally spend somewhere between 2 and 3 per cent of gross income for promotional activities.

Builders don't spend anywhere near this much. And I wouldn't mind having the difference between this budget and what the building industry spends on advertising and merchandising. I should estimate that the average builder's outlay for promotion falls between one-half and three-fourths of 1 per cent of his gross. This percentage just doesn't provide enough funds to do an adequate job in today's market, where we are offering a product that people don't have to buy.

Although our industry dates back to the time when caves were just going out of fashion, we are just babes in the woods when it comes to battling these 20th century Johnny-come-latelies for our rightful share of the consumer dollar.

Let's take a builder who constructs 100 homes a year in the $15,000 range. His annual gross is $1,500,000. Allocating three-fourths of 1 per cent for promotion, (and I'm not being conservative) he has $112.50 per house or $11,250 to spend over a year to peddle $1,500,000 worth of merchandise.

From this sum, let us say he

(Continued on page F29)

*Irving Rose is president of Edward Rose & Sons, Detroit. A director of NAHB and member of the GI committee of the Mortgage Bankers of America, he has spoken on builder merchandising and trade-in plans before home builder groups across the nation, authored booklets on the subjects, and won an Acapulco Derby award.
sell more houses?

'NO' says Joe Rattner* 

"Merely boosting the budget for merchandising only increases our costs by intensifying the selling effort. Let's leave that advertising allocation alone and put our attention—and our dollars—into improving our merchandise. . . ."

Good advertising is not enough.

No one can quarrel with the thesis that we must overhaul our merchandising techniques.

But we need a new approach to the selling problem, beginning with subdivision planning and continuing right through to post-sale public relations and institutional practices. Merely boosting the budget for merchandising only increases our costs by intensifying the selling effort.

To succeed in a slow-selling competitive market, today's builder, in my book, must tailor his operations to provide more of the amenities which will sell homes in greater quantity without the need of boosting that three-quarters of 1 per cent promotional allocation Mr. Rose mentions.

Why? Because many of today's educated home buyers are buying a community more than a home. It is pretty well accepted that our market lies in the second- and third-time buyer and new-family formations which come of home-}

owning antecedents.

So let's leave that advertising allocation alone and put our attention, and our dollars, into merchandise. A good architect is basic; he's worth his fee. Most builders already recognize this tenet or will be forced to in the near future.

True, we must accept increasing costs to get the share of the consumer dollar to which all of us believe we are entitled. Fancier advertising, more hoopla and hard-sell promotion undoubtedly would give the builder who adopted the program first an edge in sales over his competitors—until they picked up the ball and met his competition in the real estate pages. It would no doubt boost sales for all builders by converting some apartment dwellers to home owners and some old-home owners to new-home owners.

But, regardless of this, where we home builders have lagged behind the auto industry and others which admittedly outsell us is not so much in selling itself but in the value given per dollar.

We must offer the market something much better than it has now. The story of sales by obsolescence has been told before; that is not the program I propose.

We must create planned communities. Even the better programs for land development in 1957 do not provide facilities community planners have long promoted.

(Continued on page F29)

* What do you think? Do you agree with Mr. Rose or Mr. Rattner? Send us your views.

Joseph W. Rattner's advertising budget

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Joseph W. Rattner, home builder of Birmingham, Mich., recently completed two 12-family apartment houses, a $100,000 home, three in the $35,000 class, and 12 for $22,000. With versatility, he has constructed public buildings for state and county, built a large church, and is a development builder.
FIRST PRIZE in Visking Company's contest is the Women's Congress Home design No. 2 sponsored by National Retail Lumber Dealers Assn. Nation-wide promotion, which kicks off next month, will be a boon to lumber dealers. Home is to be built under supervision of Lu-Re-Co on winner's lot, foundation and floor platform.

Pictures in the news...

PRINCIPAL SPEAKER at OHI National Housing Congress in Tucson was Housing Administrator Albert M. Cole who pointed out campaign's dual benefit to people as individuals and to the entire economy. A banner year was predicted for home improvement. (Story on next page.)

TV's Wendy Barrie and Ralph Brass, national director, Build-In-Age, Inc., display January 1957 issue of American Builder which featured 461 new products. Magazine was placed in a time capsule and buried near the new Architect's Display Building at Mountainside, N. J.
NEW APPROACHES TO FINANCING . . .

Why builders cheer, "On Wisconsin"

When and if the mortgage money problem is solved, partial credit may go to some good old-fashioned Wisconsin enterprise. Two plans, designed to channel much-needed money into new home loans, are being tried out in the Badger state.

"A new pattern for financing veterans' housing and VA-guaranteed mortgages." That's how Delbert J. Kenny, president, B. C. Ziegler & Co., describes his firm's approach to the problem. The initial phase of the plan involved the offering of a collateral trust bond issue to finance construction and sales of 36 houses for veterans in a Milwaukee development.

How the plan works

Mortgages on the 36 houses were deposited as collateral for a $385,000 loan with the First National Bank of West Bend as trustee. Then arrangements were made to issue bonds against the $385,000. These bonds took the form of coupon bonds in denominations of $10,000, $5,000, $1,000 and $500, maturing at intervals from April 15, 1957 to Jan. 15, 1972. Interest varied from 4 1/2% on the short-term bonds, 4 3/4% on medium-term issues and 5% on those maturing at the latest dates. The 4 3/4% and 5% bond interest is possible on 4 1/2% GI loans, Kenny said, because the mortgages themselves are protected by insurance.

Twenty-four hours after the bond issue went on sale, School View Realty Co., Inc. (the builder) and the Ziegler Co. elatedly announced that the issue was sold out. And, the investors had come from every stratum — individuals, insurance companies and pension and trust funds.

Explained Kenny: "There are many persons with money to invest who normally would not be interested in home mortgages. Collecting monthly payments and keeping complicated records would involve too much bookkeeping. What we have done is to provide a safe investment to get some money into the new home market which otherwise might have gone elsewhere."

Although Kenny admits the initial offering was somewhat of a trial balloon, the experience indicates that fears were groundless. Another, more ambitious issue is planned and it will be registered with the Security and Exchange Commission.

New insurance program

Competition with the Federal government in the field of mortgage insurance is the basis of the second Wisconsin plan.

The Mortgage Guaranty Insurance Co. of Milwaukee has been licensed to offer lenders a mortgage insurance plan to protect them against losses with rates that compare favorably with those used by FHA, according to Sterling H. Albert, president. Albert was formerly assistant state FHA director.

The plan, he stated, should help loosen lending requirements by savings and loan associations, banks and insurance companies in the state.

"Lenders are paying 4% to get money," he said. "They need at least 1 1/2% for overhead, so the 5% top of FHA isn't enough. That's one of the reasons for the failure to use its services more here."

The company permits lenders to charge any competitive interest rate on their mortgages which can run to 80% of appraised value. Other rules: amortized loans may not exceed 25 years or $25,000; the loans must be for one- to four-family non-farm, residential, owner-occupied property; and a satisfactory credit report is required.

Rates are 1/2 of 1% of the loan for the first year and 1/4 of 1% of the principal balance for each succeeding year. Special premium rates are available in lieu of annual premiums.

Max H. Karl, the firm's chairman of the board, reports that a number of local builders feel that by offering the mortgage guaranty policy to a mortgage lender, the lender will show a greater willingness to make a loan where the down-payment is at a minimum.

The company reports its plans to operate nationally and has started license proceedings in more than 40 states.

Enthusiasm: key word in OHI outlook

Challenging opportunities which exist in the home improvement field point to a rapidly expanding business. This good news for the industry came from the recent meeting of THINC—the Tucson Home Improvement National Congress.

Enthusiastic speakers at the sessions agreed that there will be much more home improvement work in 1957 and there is no "tight money" situation on home improvement loans. (All bankers who attended the meeting said they expect to make more of these loans this year than they did in 1956.)

Outlining its plans for the year to further stress remodeling, OHI designated May as National "Better Your Living Month."

Closing session of the congress passed the following recommendations:

- Since OHI is such a tremendous success at the community level, everything possible should be done to encourage more cities to launch local programs.
- The industry should capitalize on the fact that there is no money shortage for improvement loans.
- Remodeling is a distinct category of construction and should attract a bigger force of builders and contractors because of the steady profits to be made.
- Great need exists for "harder sell" in competing with other industries for the consumer dollar.

In an effort to convert OHI's high level promotional activity to a strong administrative and informational force, OHI upped Don Moore to managing director, succeeding John R. Doscher.
GOING TO PRESS

Discounts . . . unfair to the builder

by Caswell Oden, Shreveport, La.

Contrary to popular belief today, the so-called tight money situation is not the builder's biggest problem. His chief problem stems from a tight money situation, but that in itself is not the evil forcing him to the wall.

Tight money, plus low FHA-VA interest rates, brought on the discount. And the discount, of course, is merely a device for adjusting the interest rate upward. It is, therefore, actually part of the interest paid in advance.

Since it is interest on the loan, it should be paid by the borrower. (I have found no one who disputes this fact, including customers to whom I have sold new homes.) Nevertheless, FHA and VA require this item of interest be paid by the builder. It is this unconscionable requirement, totally unfair, totally unnecessary and totally unwise, that slowly but surely is bankrupting many builders.

The builder does not want inflation any more than anyone else. If the economic picture in this country dictates that few homes be built, he is quite willing to build fewer homes. If there is not enough mort-gage money, he is willing to operate a reduced program. But what he would like to do is earn fair profit on the fewer homes he does build.

FHA and VA have made it impossible to do this. They have slowed down building, not by putting pressure on consumers, where it belongs, but by making it impossible for builders to gross an equitable profit.

There is no other industry where the producer or seller is forced to pay a cost legitimately belonging to the buyer. When you buy a car, you don't find that VA or a Federal Automobile Administration has told the dealer he must pay part of the interest on your loan.

It is very true that FHA (not VA) permits the builder to sell a house for more than its valuation and in this way collect the discount for the lender. But everyone knows the general public considers valuation the price it should pay. If the builder does manage to get more than that, he is a profiteer with horns and tail. Moreover, if FHA doesn't care who pays the discount, why prohibit the borrower from paying it—as a discount? Why not lay the cards on the table? Why not call a spade a spade? Why not let the law of supply and demand work?

The FRB can pursue its hard-money policy to kingdom come and the builder will adjust himself to this condition. FHA and VA can raise down payments and reduce terms and the builder will not complain, because he knows the buying public would do enough complaining for everyone.

But if FHA and VA don't stop insisting that the builder pay part of the interest on the borrower's loan, they will soon wreck the economy of builders in this country, which will in turn have adverse effect upon the economy of the entire nation.

No one will deny the great benefit of FHA and VA, least of all the builders. If they will merely permit the borrower to pay all interest on his loan, the builder's economy will be saved. This done, a new home prospect may buy, or not, as he sees fit. Supply and demand will have meaning in the building industry, too. And the builder will take new hope, and work out his own destiny on his new foundation of justice—whether he is confronted with tight money, loose money or medium money.

LUMBER DEALERS . . .

How to get the most from your displays


One of the country's leading authorities on retail merchandising, New York adman, E. B. Weiss, has raised the interesting question of whether retail store display may not be a much more effective force in determining consumer preference than many realize.

He points out that whenever a test is made in which a well-known nationally advertised brand is dropped down to a lower shelf or given less shelf frontage, and another brand not quite so well-known is given better visibility, the results have uniformly proven that display will outdo advertising in making sales.

Mr. Weiss probably is thinking principally of chain food and drug stores featuring self-service.

Lumber dealers don't carry as many competitive brands of an item as food and drug chains do. And, self-service isn't nearly as prevalent. But Mr. Weiss' observations raise the interesting question of whether more lumber dealers who go after consumer business shouldn't be trying to make really effective use of their display space.

Many dealers are doing a bang-up job, of course. Others seem to use space more for the purpose of storing merchandise than for inviting customer inspection and making extra high-profit, impulse sales.

In many stores, all that is needed is to arrange the merchandise more attractively, keep displays dusted and filled up, add price tags and talking signs. Then displays could be rotated frequently so as to take advantage of seasonal appeals.

Dealers seeking good advice on store layout and display, in either written or visible form, should write to their state or regional association. They can get the information in the form of dealer-operating guide chapters, color-slide programs, or trade-paper reprints.
How Milwaukee plans ahead:
HBA demands land use plan

It's happening practically all over: builders are "crying" for some type of over-all community land planning.

They want to know where they stand before they begin developments. They want to know that what's okay to build in one section of their community won't be "outlawed" five miles away.

Local ordinances, poor zoning and bewildering code variations have stymied builders to the point where many will not build. If fewer homes are built, those going up will cost more.

In Milwaukee the problem became so acute the Home Builders Assn. decided to do something about it. Led by their president Joseph J. Mollica, they got the ball rolling on a land-use plan program and are seeking state legislation to carry it out.

The builders are calling for:

- A master land-use plan for Milwaukee county. (Small individual communities would be required to follow it.) The plan would pinpoint heavy and light industrial areas, commercial areas, parks, main thoroughfares and residential districts. Zoning would set aside areas for low, medium and high priced homes.
- A uniform land platting law.
- A uniform building code for the entire county.

Mollica believes the association should have done this years ago. "The fact that there has been no over-all planning for this county has been costing it millions and millions of dollars."

Builders in Milwaukee are determined to put this plan into action, then make it stick. Right now the state, like many others, has laws which permit regional planning commissions for seven Wisconsin counties—but only on an advisory basis. If counties request the commissions, the governor can create them. But so far not one county has requested aid. Even if they had, the commissions are weak and without authority. Their advice is not law and no local officials would be forced to follow it.

It is these commissions that Mollica thinks possibly could handle the proposed plan. Or he believes it might be necessary to have some agency controlled by the state. This would avoid controversy among the various communities affected.

A number of events, some recent, some building up for years, have led to this action taken by the association.

Local zoning ordinances around Milwaukee are getting more and more restrictive and discriminating. For instance, the city of Franklin sets the minimum lot frontage at 120 feet. Large subdividers for medium and low-cost homes can't build there because the homes would be too costly for most buyers.

Also from 1955 to 1956 there was about a 33 per cent decline in the number of platted plots in the county. Builders are blaming zoning ordinances on this too. The HBA is trying to make sure there will be lots available for all the people in Milwaukee who want them—especially in view of the increasing population.

These new families will need places to live, but builders won't be able to provide them if local ordinances continue to be so strict. A state subdivision law passed in the 1955 legislature isn't operating properly because individual communities can overrule it. In Franklin an ordinance was recently passed that said, among other things, that a subdivider has to provide proof that adequate grade-school facilities are or will be available, or pay $500 per home to a school fund. In the end the home owner pays it.

Builders believe that this school contribution feature is unconstitutional. However, if it should be upheld by the courts, it would practically end subdividing in Franklin.

Mollica said builders feel it's unreasonable to demand that persons entering a school district make a monetary deposit for new school facilities when those already in the district never have.

With a master land plan, schools would be included in the proper areas before subdividing began. Mollica said that around Franklin "there isn't a subdivider that would operate there."

The builders also feel that with a master plan the community would be considered as a whole. Developers would be able to buy up land when it is reasonably priced.

The plan will solve other problems around Milwaukee. For instance, there is a transportation problem which is now in the process of being solved. While this problem may not have been foreseen, a land plan would prevent a similar one in the future.

Since home ownership in Milwaukee has increased from about 42 per cent to 64 per cent since World War II, a master plan is badly needed to correlate building.

Mollica said, "The builders' association wants a planning agency which will get something done."

LIFE INSURANCE: under Chicago HBA's new program, first payment to a beneficiary went to widow of A. P. Murphy. (L to R): Arthur Kendrick, Wm. Donne, Jr., Mrs. Murphy, H. Mort Robbins and John R. Downs.
(Following is the second section of the article by William C. Bober. Upon it, American Builder's editors Joseph B. Mason and Walter R. Browder based the leading discussions at the annual AB breakfasts at the Sherman House-on-the-Roof during the NAHB convention. Mr. Bober here stresses the five non-family-formation components of demand.)

Why is it that we have had these bounteous years of more-than-a-million-annual homestarts from 1946 to 1956 in the face of this decline in family formation—this steady numerical drop of young folks reaching home-wanting age? Of course war and depression backlogs played their part. But, far more important, family formation is merely ONE component of new-home demand. Every one of the following components will continue to be operative when the curve of family formation begins to climb again in 1958:

1. The migration to the suburbs.

It is of colossal proportions and one of the most spectacular features of our times. From 1950 to 1955, according to latest Department of the Census estimates, the suburbs swelled with population six times as fast as the old central cities themselves. People are pouring not only into the suburbs but into trans-suburbia and right out into open country. From now into the 1960's, growth will be easily ten times as fast as in central cities. That alone calls for a vast volume of homebuilding, plus the myriad forms of secondary non-residential construction generated thereby.

Vacancies in the old congested areas will sooner or later rise to what some analysts will call "alarming proportions," but don't be alarmed. The figures will be
irrelevant. What counts is not the empty dwelling units where people no longer want to live, but where they do want to live—and that is in the suburbs, and beyond. Today the vacancies there are almost zero. Given available mortgage money and prosperity, the housing boom in the suburbs will keep going for decades to come.

2. Regional migration.

The West, sunshine, climate, scenery and greater opportunities in the younger parts of the country continue to function as magnets that pull great numbers of American families out of the older regions into the newer. Here too, as in the suburban migration, vacancies where people move from are irrelevant. A vacant dwelling in Portland, Me., is no help when you are hunting a home in Portland, Ore.

3. The postwar distribution of income.

It is radically different from pre-war. It has practically abolished the distinction between middle class and working class. The latter now demands new homes, like the former. The day is done when the working man was resigned to rent, or at best own a second- or third-hand dwelling. Today half of all our non-farm families have incomes of $5,000 or over—which is enough to finance a new home priced $12,500 at bankers’ standards. And every year another million or so of families has been entering this bracket.

In the late 1960’s three quarters of all our urban families will be able to finance new homes. That, as compared with pre-war, is a revolution indeed.

4. Easy credit.

The small down payments are the basis. But what has really done the trick is that it is cheaper to own than rent. You pay $75 or $80 a month on an owned new house in the desirable suburbs instead of actually more to rent a railroad flat or antiquated apartment in the old congested city. Hence home ownership has moved up from 40 per cent before the war to 60 per cent of all homes in 1956. Hence also in 1956 over 90 per cent of all new dwelling units were built for owner-occupancy, instead of 40 per cent as in the last year before Pearl Harbor.

In effect, American families are using their “rent money” to become owners. This is an immense offset to the mortgage debt that the alarmists observing its size do not realize. Mortgage debt is recorded as debt. Rent liability is not. Yet people must live somewhere and if they avoided mortgage-payment liability, rent-payment liability would be vastly greater in the aggregate. As all lending institutions have discovered, people pay their debts, particularly for dwelling space—whether you call it mortgage debt or rent liability.

5. The obsolescence of the existing stock of dwellings.

It isn’t merely deterioration due to the passage of time. A vast number of dwellings no longer fit into what the modern American housewife considers satisfactory. She doesn’t like the stairs, the lack of window space, the gloomy kitchen, the inadequate electrical outlets for today’s innumerable electrical gadgets, the single bathroom, the obsolete hallway, the ancient dated design and layout. Every time she visits a friend who has moved into a new house in the suburbs, these old dwellings are shown up as Victorian and inadequate.

The homebuilding industry has made three quarters or so of the entire old pre-war stock of dwelling units essentially obsolete! It hasn’t itself as yet grasped the full significance of that revolutionary performance. But this is certain: in the 1960’s the great bulk of American families will be satisfied to live only in (1) new homes or (2) in old ones that have been radically modernized from their very foundations.

Above I have listed what can be called the five main non-family-formation driving factors that caused the great postwar housing boom. Remember: this boom has taken place in the face of steadily declining annual contingents of young people reaching home-wanting age.

Yet every one of these driving factors will continue and become even more powerful in the years ahead. And on top of this, the number of young adults will rise, slowly at first, then in an irresistible torrent as we enter the 1960’s. Do you wonder that I am predicting 2 million new homes a year when we end the 1960’s?

Aged live longer

In former years, the death of the aged threw some housing on the market to partially but heavily offset housing demand resulting from new family formation. But now, with the ever-advancing medical revolution, the older folks live longer. So young (Continued on page F27)
WHEN HOME BUYERS SEE THE Hotpoint NAME—
THEY KNOW YOU’RE A Quality Buyer!

Only Hotpoint offers you ALL these advantages . . .

- Superior Performance—exclusive new Hotpoint features—backed by an established reputation for finest quality.

- Unequaled Variety—the widest selection of models at prices for every kitchen, every budget.

- Advanced Styling—"modern beauty for modern living"—in five Colortones, Coppertone, or Stainless Finish!

- Simplified Installation—engineered to eliminate special wiring, plumbing, and construction—and to save you man-hours and dollars!

FIVE NEW HOTPOINT OVENS—
Offer such exclusive features as the Roast-Right thermometer and Rota-Grill rotisserie. Promotional models, sell-up models—plus the exclusive BI-LEVEL double oven. All fit into 24-inch wide by 24-inch deep cabinet.

SEVEN NEW HOTPOINT SURFACE SECTIONS—
30-inch stack-on with automatic time and temperature controls . . . drop-in models that fit into 30-inch, 24-inch and even 21-inch cabinets . . . two-unit sections with remote pushbutton controls . . . Golden Fryer . . . Golden Griddle.

NEW HOTPOINT BUILT-IN REFRIGERATOR AND FREEZER—
Combine outstanding beauty and convenience with low cost and ease of installation. No special framing required—supported by the floor. No separate compressor installation. Each requires only 36 in. wall width, 24 in. depth.

1957 HOTPOINT MODULAR KITCHENS—
The Appliance that’s most-wanted by American women (pictured at lower left). A compact space saver offering a one piece stainless steel countertop, sink, oven, surface unit, plug-in griddle, dishwasher, food waste disposer, pushbutton controls, appliance outlets, cabinets! 7 and 9 foot models.

Look to Hotpoint for the finest...first!
the Hotpoint Customline
is the builder’s line of built-ins

WHEN HOME BUYERS SEE THE Hotpoint Name—THEY KNOW YOU’RE A Quality Buyer!

Only Hotpoint offers you ALL these advantages . . .

- Superior Performance—exclusive new Hotpoint features—backed by an established reputation for finest quality.
- Unequaled Variety—the widest selection of models at prices for every kitchen, every budget.
- Advanced Styling—“modern beauty for modern living”—in five Colortones, Coppertone, or Stainless Finish!
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Look to Hotpoint for the finest...first!
HOW TO USE THIS

Spend a little time READING

to save a lot of time

KEEP THIS
BOOK HANDY

As you turn the pages of this DIRECTORY you will be aware that here is a book that meets a year around need because of the scores of editorial data pages, the catalog and specification type of advertising and the big reference directories. Get acquainted with this DIRECTORY and you will be sure to agree that it is a handy book to have around!

USE IT
EFFICIENTLY

This book has been divided into seven major sections, each opening with a frontispiece, which enumerates the subjects covered as well as indexes to both the editorial and the advertising pages. Consult these indexes when you have an estimating, construction or buying problem. Each of these sections have been foiled separately with the page numbers prefixed by the alphabetical letter designating the section so that you can use it efficiently.

BUILD UP YOUR
REFERENCE FILE

Within the advertising pages of each section are reviews of catalogs and technical literature which you can obtain free from manufacturers. All you have to do is circle the reply card facing

WHAT TO USE—HOW TO

AMERICAN BUILDER
TIME-SAVER ISSUE

WORKING

Section G and drop it in the mail.

WORK THE ADVERTISING

To supplement the technical material offered in the editorial pages of this DIRECTORY you will find that advertising too has been designed to give you installation data, specifications and buying information. This is the type of reference you will want to use throughout the year.

To get the most value from the advertisements, study them carefully from time to time, for in these pages you will find the latest developments in building industry products, construction methods, tools and equipment.

The manufacturers who advertise in this DIRECTORY do so because they want to serve you. Write them regarding your problems at any time. They will be happy to send you technical data and literature, prices or the name of your nearest supply source.

Work the advertising hard—it will help you to be a better and more successful builder.

USE THE YELLOW PAGE SECTION

The yellow pages in the front of this book contain two important directories each performing a specific purpose for you. You'll want to become acquainted with these for here is what you will find.

The Directory of Building Products and Equipment Manufacturers is your buying guide to "Who Makes It." Classified alphabetically by product categories here are the manufacturers who serve the needs of your industry. Many of these have gone to extra effort to help you locate them by using display advertising and are particularly anxious to help you. Contact them at any time for information.

The Directory of Brand Names is provided to help you to locate the name of the manufacturer when you need repair or replacement parts for a product which you have associated only by its brand name.

USE IT—WHO MAKES IT'
CONTRACTORS! Getting new construction business takes plenty of smart digging. And Dodge Reports tell you where to dig. In short...

We can help you “dig up” business!

Put down the pick—and pick up your pen if you want to know about new construction jobs coming up in your area... and how to get invited to bid on just the kind of work you want. Read, fill out and mail this coupon today!

TO: DODGE REPORTS, 119 WEST 40th STREET, DEPT. 172, NEW YORK 18, N. Y.

Yes! I’d like to pin-point my prospects by knowing in advance who’s going to build, what, when, where.

I want to know whom to contact and when to submit bids.

I’d like to see some Dodge Reports, and I’d like a copy of your booklet that tells how to use this accurate, daily, up-to-the-minute construction news service to get profitable business.

I understand that I can pick just the area and type of construction activity that interests me. Also, that I won’t have to wade through mounds of data to find the information I need.

I’m interested in General Building □ House Construction □ Engineering (Heavy Construction) □

In the Following Area: ________________________________________

NAME:______________________________________________

ADDRESS:____________________________________________

CITY_________ZONE____STATE________

Dodge Reports
For Timed Selling to the Construction Industry
You are entering the **American Builder**

Product directory

Help yourself to everything you want in new technical information and literature shown on the pages ahead. This is **one-stop shopping** for ideas. Instead of writing a dozen different manufacturers, just circle the numbers on the other side of the card below . . . then drop it in the mail (no stamp needed). **AMERICAN BUILDER** will forward your request to each manufacturer, who will send you complete data free of charge. **Get your pencil out and help yourself . . .**
CIRCLE items below

...and mail this postcard today

FREE INFORMATION on PRODUCTS & EQUIPMENT

MAIL THIS CARD TODAY — WE PAY THE POSTAGE

PLEASE PRINT NAME

NAME ........................................ KIND OF BUSINESS ........................................

STREET ........................................

CITY ........................................ ZONE ...... STATE ........................................ APRIL, 1957

I wish to enter a subscription to American Builder for one year ($3.50) □ 3 years ($7) □

☐ New  ☐ Renewal ........................................ Signature
Brand Names of Building Products and Equipment

Brand Names used to identify principal building products and equipment of major manufacturers are listed in this directory in alphabetical order with the names and addresses of the companies to which the brand names apply. This listing may be used to ascertain the manufacturer of any product when only the brand name is known. It can also be valuable in determining the source of repair and replacement parts on products and equipment.

Wherever possible brand names which are synonymous with the manufacturer’s name have been omitted as these may be readily located in the classified Directory of Products and Equipment Manufacturers.
GIO

AMERICAN BUILDER
SHURON FLOOR Hooker Glass & Paint Mfg Co 450 W Washington Chicago 6 Ill
SHURE-SET Ramset Fastening System Div 12177 Berea Rd Cleveland 11 Ohio
SHUR-STEP Mayes Bros Tool Mfg Co Port Austin Mich
SHURON FLOOR Hooker Glass & Paint Mfg 659 W Washington Chicago 6 Ill
SI-CLONE Simonds Saw & Steel Co 470 Main St Fitchburg Mass
SILAKOTE Weatherguard Service Inc 564 Jackson Ave New York 55 NY
SILACOAT American Asbestos Prods Co 8000 Franklin Blvd Cleveland Ohio
SIGUNIT Sika Chemica Corp 35 Gregory Ave Passaic NJ
SILATEX Tamms Industries Inc 228 N La Salle St Chicago 1 Ill
SILATEX Stanley (William W) Co Inc 401 Broadway New York 13 N Y
SILENDOR Weisberg-Baer Co 405 26th Ave Long Island City 2 NY
SIL-O-ETT United States Gypsum Co 500 W Adams St Chicago 6 Ill
SILVERHILL Stock Manufacturer Co Newington 10 CT
SILVERENE Sellrite Paint & Varnish Co 905 Main St Detroit Mich
SILVERCRAFT Rubber Mfg Co Inc Sterling 15 Mo
SILVER LINE Union Machine Co 708 Colfax St Logan 12 Ohio
SILVER SENTINEL Slaymaker Lock Co 115 S East Ave Lancaster Pa
SILVERTITE Closed Elliott Co Inc 645 Kent Ave Brooklyn 11 N Y
SILVEX Commercial Wooden Screw Co Advancetown 10 Mo
SILMART American Steakcraft Corp 55 Stark Ave Attleboro Mass
SIMI-CAST American Steakcraft Corp 55 Stark Ave Attleboro Mass
SITE-SAVER International Lighting Co 6511 N Newton 30 Chicago 18 Ill
SILVER-FAST TILE ADHESIVE Tamas Industries Inc 228 N La Salle St Chicago 1 Ill
SILVERSTONE 4350 Industrial St Elkhart 15 Ind
SILK-GLIDE Weatherproof Floors Corp 5068 39th St Kansas City 17 Mo
SILK-CRAFT Wm H Sifton & Co 630 N Main St Rochester 14 NY
SILK-LOADER Drott Mfg Co 5841 W Wisconsin Ave Milwaukee 14 Wisc
SILK-SHOVEL Drott Mfg Co 5841 W Wisconsin Ave Milwaukee 14 Wisc
SILK-OVERLAP Drott Mfg Co 5841 W Wisconsin Ave Milwaukee 14 Wisc
SILK-MASTER Astrup Co 2297 W 25th St Cleveland 12 Ohio
SILK-MASTER Flat Metal Mfg Co 5901 W Beloit Rd Milwaukee 15 Wisc
SKOTCH Superior Fastener Corp 2949 Elston Ave Chicago 22 Ill
SKUPRUS Richcraft Co 610 N Dearborn St Chicago 10 Ill
SKY BLAST Robbins & McEvers 1345 La-gonda Ave Springfield Ohio
SKYBLADE American Steakcraft Corp 100 West Main St Round Brook NJ
SKYLINE American Transportation Co 101 W 29th St Chicago 9 Ill
SKYLITE American Emblem Co 213 E Broadway Muskegon Okla
SKY-MASTERS Manta Auto Body Co 5750 N Broadway St Louis 15 Mo
SKY-SPAN Water Tower 24 Gateway Center Pittsburgh 22 Pa
SKY-SPAN Water Tower 24 Gateway Center Pittsburgh 22 Pa
SKY-SPAN New Castle Mfg Inc Box 140 Atlantic City 11 N J
SKY-SPAN Mfg Co 42 E 45th St Chicago 11 Ill
SPACESAVER Payne Div Carrier Corp 700 23rd Ave Monrovia Cal
SPACESAVER Payne Div Carrier Corp 700 23rd Ave Monrovia Cal
SPARCLIN Commonwealth Paint & Varnish Co 415 S Chestnut St Chicago 11 Ill
SPARKS GLIDDEN Co 900 Union Commercial Bldg Cleveland 2 Ohio
SPRINT MOUTH Wright Mfg Co 3400 S California Ave Chicago 11 Ill
SPRING-EZE Ajax Hardware Sales Co 4550 S 43rd Ave Chicago 39 Ill
SPRING-FLEX H. E. Parker Co 2520 S 43rd Ave Chicago 39 Ill
SPRING-PROSpector Div American Concrete Co 2101 W Roosevelt Rd West Chicago 11 Ill
SPRING-PROSpector Div American Concrete Co 2101 W Roosevelt Rd West Chicago 11 Ill
SPRING-TITE Weatherproof Floors Corp Waldo Station Box 8498 Kansas City 5 Mo
APRIL 1957
This classified directory has been compiled to provide the industry with the names and addresses of the major producers of building products, equipment and services. It also supplements the preceding directory of Brand Names as those brand names which are synonymous with the manufacturer's name do not appear in that section but may be found here by consulting the specific product classification.

A minimum number of cross references appear in this directory. This has been done to conserve space thus allowing for more individual categories. Choice of either the noun or descriptive adjective, as the classification word, has been used on the basis of the word most acceptable in the parlance of the building industry.

Every attempt has been made to list this directory as complete as possible and to encompass all phases of the building industry. In the event the information desired cannot be found in this directory write to AMERICAN BUILDER, Director, 79 W. Monroe St., Chicago 3, Ill.

The names of Manufacturers who advertise in American Builder appear in Boldface Type

The Industry with the Names and Addresses of the Major Producers of Building Products, Equipment and Services.
National Metal-Art Mfg Co 1900-8th Ave Brooklyn 15 NY
NEW CASTLE PRODUCTS INC BOX 553 NEW CASTLE DE
Northern Industries Inc 407 E Michigan Ave Milwau-keee 26 WI
Rippline Plastics Prods Inc 3910 Hohanset St Burbank Ca
Showe Door Co of America 1 Permalume Pl NW Atlanta 18 Ga
Silver-Lite Co 701 North St Toledo O
Standard Steel Cabinet Co 3701 N Milwaukee Chicago 32 Il
Trimview Metal Prods 600 N Third St Covina Cal
Ventilair Co PO Box 5086 Tulsa Okla
Wesco Prods Inc Bay State Rd Cambridge 36 MA
Window Supply Inc 4434 San Fernando Glenn-dale 4 Cal

BEAD, CORNER METAL
Allein Shen Prods Co 2941 E Ten Mile Rd Hazel Park Mich
B & T Metals Co 425 W Town St Columbus 16 Oh
BEADEX SALES INC 4415 EIGHTH AV NW SEATTLE 7 Wash
BESTWALL GYPSUM CO 120 E LANDMARK ST NEW CASTLE 8 Del
BOSTWICK STEEL LATH CO 1890 GRISWOLD DOWNTOWN 1 Youngstown 10 Oh
BRADBURY LUMBER CO OF ARK PO BOX 139 WARREN ARK
CECO STEEL & WIRE CORP 5651 W 26TH ST CHICAGO 26 Il
DRIWWALL DIVISION CO 2488 N FARWELL AVE MILWAUKEE 11 Wis
Goldsmith MFG Co 180 N LaSalle St Chicago 10 Ill
INLAND STEEL PRODS CO 4151 W BURNHAM BOX 353 MIL 1 Wis
KEYSTONE STEEL & WIRE CO 7400 S ADAMS PEORIA 7 Ill
Klauser Mfg Co 9th & Wabasha Ste Dubuque Ia
La Cross Steel Roofing Co 22 Jay St Bay Ste 827 La Croix 1 Wis
MACKLANBURG-DUNCAN CO 4401 N SANTA FE OKLAHOMA CITY OKLA
NATIONAL ALUMINUM CO 1133 ALUM GLENWOOD 10 Youngstown 44505 Oh
NATIONAL GYPSUM CO 325 DELWARE AVE BUFFALO 31 NY
Penn Metal CO Inc 405 E 42ND ST NEW YORK 17 NY
Penn Supply Metal Corp 1581 N Fifth St Philadelphia 22 Pa
Pierson (H K) Mfg Co 225 N Main St Parkersburg 15 Wv
Pyramid Mouldings Inc 5063 W Armstrong Chicago 10 Il
Ricks Co 510 N Dearborn St Chicago 10 Ill
Sioux Steel Co 196 East 6th St Sioux Falls Sd
Soule Steel Co 1760 Army St San Fran 24 Cal
Tennison Bros Inc 450 N Bellevue Memphis 4 Ten
TRUSCON STEEL DIV REPUBLIC STEEL 1050 ALBERT ST YOUNGSTOWN 10 Oh
UNITED STATES GYPSUM CO 300 W ADAMS ST CHICAGO 7 Ill
Wheeling Corrugating Co 1154 Market St Wheeling 7 W Va

BEAMS WOOD LAMINATED
JONES ROOF STRUCTURES INC PO BOX 2215 BOISE IDACA 2034

GLAMUL BEAMS
Thousands now in use.
Made by Jones Roof Structures, Inc.
Box 2223 Boise, Idaho

McKeown Bros Co 5303 S Keele Ave Chicago 32 Il
PREFABRICATED PRODS CO INC 6TH ST SOUTH KIRKLAND WASH
RIPPA LAMINATED PRODS INC 391 1ST NATL BANK ST PAUL 1 MN
SUPER-STRUCTURES INC 1005 15th Jefferson Albert Lea Minn
TIMBER STRUCTURES INC PO BOX 3792 KANAB CASTLE 15 Mo
Triangle Beam Co 25 Essex St Youngstown O Unit Structures Inc Froehligs Wis

BEDS, WALL, BUILT IN
Holmes Prods Co Woodstock Ill
Murphy Door Bed Co 19 West 44th St New York 36 Ny
Roll-A-Way Corp 2904 N Sheffield Chicago 14 Ill

BURLINGTON ENCLOSURES
ALYNITE CO OF AMERICA 4464 DE SOTO ST SAN DIEGO 8 Cal
American Metal Door Co INC 1023 N LAMBERT AVE LOS ANGELES 33 Cal
Amercer Prods Inc 97 11 Northern Blvd Corona 68 NY
B & T Metals Co 425 W Town St Columbus 18 Oh
BARRETT DIV ALLIED CHEM & DYE 4711 S LAMBERT AVE CHICAGO 35 Ill
BEAUTI-DOR INC 4723 N PALUSKI RD CHICAGO 38 Ill

BATH TUB ENCLOSURES
BECO CORP 2915-17 CANTON ST DALLAS 14 Tex
BINSWANGER & CO 207 N MAIN ST HOUSESBURG 42 Pa
CHESLEY MFG CO 2000 COLORADO AVE LOS ANGELES 19 Cal
CRANE CO 836 S MICHIGAN AVE CHICAGO 10 Ill
Downey Shower Door Co 8246 E Phipps Blvd Chicago 74 Il
EFRON (THEODORE) MFG CO 4634 S WORTH STREET CHICAGO 11 Ill
FIAT METAL MFG CO 9381 W BELMONT PARKILL
GENERAL ELECTRIC-LAMINATES 1 PLASTICS AVE COHOBUS H
General Plastics Corp 1460 N Washington Marion Ind
GLASCO STEEL GLASS WAL-DOR CORP 4723 N PALUSKI CHICAGO 38 Ill
Jewett MFG Co 701 North St Brooklyn 27 Ny
Kenosha Prods Inc PO Box 277 Bristol Ind
Lehman Spryheil Co 3355 York Rd Phila delphia 69 Pa
Leigh Bldg Prods Div 1607 Bee St Dept 4 Chicago 64 Il
Milwaukee Mfg Co 800 S 8TH ST MIL Wisc
MORGAN-WIGHTMAN SUPPLY CO 1541 S LAMBERT AVE CHICAGO 38 Ill
NATIONAL ALUMINUM CO 1133 ALUM CREEK DR COLUMBUS 0

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Coughlin (H E) Co Inc 8 Arlington St N Quincy 71 Mass
The Discourse Co 32 Union Square New York 2 NY
BEARDSWORTH INC CORP POST HILL RD NOR- WALK CONN
Liberty Bell Div Co Short St Swainsboro Ga
MORGAN-WIGHTMAN SUPPLY CO 1541 S LAMBERT AVE CHICAGO 38 Ill
NUTONE INC RED BANK & MIDDLE TOWNSHIP 5 Pa
PROCTOR MFG INC CORSTOR & TULIP AVE PHILADELPHIA 34 Pa
Barr House CoatEast Street Hononegah Falls Ny
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AMES METAL MOLDING CO CALIF AVE BOX 2254 PATerson N JERSEY
B and T Metals Co 425 W Town St Columbus 16 Oh
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CENTRAL METAL STRIP CO 4543 N WESTILNDND 15 Ill
Decorite Inc 2116 Peachtree St Atlanta Ga
Dennis (W J) & Co 4444 Irving Pk Rd Chicago 41 Ill
Kichler Industries Inc 5840 N Pulaski Rd Chicago 39 Ill
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MILWAUKEE ELECTRIC TOOL CORP 3556 W STATE ST MILWAUKEE 8 Wis
On-Well Tool Co 925 Broadway New York 10 N Y
Prentice Tool & Star Bit Co 1149 Railroad Ave Rockford Il
RIDGEWOOD MFG DELTA PWR TOOL DIV 300 N LEXINGTON PITTSBURGH 8 Pa
Stanley Tools 111 Elm Street New Britain Conn

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BELSAW MACHINERY CO 515 WESTPORT RD KANSAS CITY 15 Mo
Coley Mfg Co Clifton Hills Chattanooga 1 Tn
DEWALT INC FOUNTAIN AVE LANCAS- TER Pa
Doe (R) & Co Inc 910 East 3333d St New York 11 N Y
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CRANE CO 324 S MICHIGAN CHICAGO 5 ILL.

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Gardner Mfg Co 267 Barstow St Horicon Wis.

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Ideal Mfg Co Div Way Camera & Co 24th and Mary Sts.

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GRAND AVE MIDDLETOWN 0O

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Muhlenberg Bros Inc 12500 Elmwood Ave.

Roeblings (John C) & Sons 640 S Broad St.

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Smith (Alexander) Inc 525 N Broadway.

ZINN MFG CO 25th and Warren Aves.

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Howard Mfg Co 491 Oak St Elyria O.

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Safeguard Products Co 895 Lafayette St.

Pennsylvania Wire Glass Co 1612 Market St.

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Thre Shovel Co 1374 E 24th St Loxba Minn

Unite Crane & Shovel Div 6141 W Burnham St Milwaukee 19 Wis
Yale & Towne Mfg Co 11000 Rockefeller Phillips 15 Pa

CRANES, SHOVELS, POWERED
Allis Chalmers Constr Mach Div 1126 S 70th St
Milwaukee 1 Wis
American Hoist & Derrick Co 68 Robert St Robert St Paul 1 Minn
Bay City Shovels Inc 2611 Center Bay City Mich
BUCKEY-EKLE-BERG-DUNCAN CO 4441 N SANTA FE OKLAHOMA CITY OKLA
Cemo Industries Inc Gallion O
Crane Co 4411 E Hermitage Ave S 70th St Milwaukee 16 Wis

Daybrook Hydraulics Div La Young 500 Lebanon Pa
FORD TRACTOR DIV 2590 E MAPLE RD BIRMINGHAM MICH
Four Wheel Drive Auto Co E 12th Clintonville Wil
Gar Wood Industries Inc Michigan Blvd Wayne Mich
HANSCSCB CRANES AG CO 4400 W NATIONAL MILWAUKEE 46 WIS
Hough (Frank G) Inc 650 10th Ave Lyndale Ave Minneapolis
Hough-Evans Corp London Rd Delaware O
Hyde-Parker Mfg Co 2022 Broadway NE Minneapolis 4

Kocher Co & Subsidiaries 5026 W Concordia Milwaukee 12 Wis
LETORNEAU-WESTINGHOUSE CO 2381 N ADAMS ST PEORIA 15 ILL
Lewis-Sherpard Mfg Inc 1556 Walnut St South Bend 112 Ind
Link-Belt Speeder Corp 1201 4th St SW Cedar Rapids Ia
Maxpower Shovel Co 617 W Center St Marion 17 O

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THE MAJESTIC CO INC HALL ST HUNT- UNT AVENUE, Binghamton, N.Y.

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Portland Stone Foundry Co 57 Kennebec St Chicago, Ill.

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Stratton Terasterge Co 300 Colburne Ave Boston, Mass.

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merton Cal.

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Vertical Mfg Co PO Box 162 Sweetwater Tenn.

Washington Stee Woolworth's 240-22 S Main ST.

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Western Foundry Co 2400 SW Water Ave Portland 1 Ore.

Young Regulator Co 5200 Euclid Ave Cleveland 3 O.

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CAREY (PHILIP) MFG CO 220 S WAYNE CINCINNA 15 O.

Ceraset Waterproofing Corp 3227 S Shields Ave Vegetables 70th.

COLORCOKE INDUSTRIES INC 24TH AND OTTAWA STS NEW ORLEANS 23 LA.

COOK (WALTER E) & CO 2330 W HUB- BARD CHICAGO 10 ILL.

DONLEY BROTHERS CO 1910 MILK AVENUE CLEVELAND 6 O.


FLINTKOTE CO 20 ROCKFELLE PLAZA NEW YORK 28 NY.

Hathaway Cl Soc Co 325 S Broadway Green Bay Wis.

Hayes Mfg Co 6007 Farm St Ohio 3 Ohio.

Holy (A C) Co Div Sun Chem Corp Tenth St and 44th Long Island City, N.Y.

JOHNS-MANVILLE CORP 22 E 40TH ST NEW YORK 14 N.

Kodmont Waterproofing Co 333 S Dearborn Chicago, Ill.

Klee Waterproofing Corp 4011 Reeder Bank Road Cincinnati, Conn.

Mar-Key Mfg Co 2715 S Second St St Louis Mo.

MIRACLE ADHESIVES CORP 255 PETTIT AVENUE BELLEVILLE, N.J.

Monroe Co Inc 16705 Quebec Ave Cleveland 6 O.

National Mfg Corp 3340 Flanagun St Tiona-

wa ND.

POINTER DIV THE FLINTKOTE CO TERM AND 1220 SHERIDAN ROAD CHICAGO 7 ILL.

PITTSBURGH PLATE GLASS CO 423 DUR- QUISENE PITTSBURGH 22 PA.

Pyramid Co 429 Maple Ave Downers Grove Ill.

Ranette Mfg Co 1971 S Broadway St Louis 6 Mo.

Reardon Co 7501 Page Ave St Louis 14 Mo.

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REN-MAT CORP 454 W 42ND ST NEW YORK 30 NY.

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Sullivan Co (The) 212 E Trigg Memphir 2 So.

Super Concrete Emulsions 1372 E 15th Los Angeles 7 Cali.

Surface Protection Co 16799 Euclid Ave Cleve- land 8 O.

Tobacco Bros 2600 Terry Starr Statean 3 NY.

Trecan Div Lab Devoe & Reynolds 1700 Caniff/Great Detroit 11 Mich.

Teflon Co Inc 139 N 9th St Bidg Des Moines 9 Ia.

Therm-O-Cote Inc 1371 Basman St Pittsburgh 10 Pa.

U S PROTECTIVE COATINGS INC 1309 SOUTH SIOUX CITY 2 NE.

Weatherguard Service Inc 564 Jackson Ave New York 14 N.

WESTERN IRON & STEEL WORKS 1515 GREEN- BAY WIS.

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GABRIEL STEEL CO 13700 Sherwood St Detroit 12 Mich
George (F. G.) Machine Co 100 S Westmore-land Orlando Fla
HEATILATOR INC 1008 E Brighten Ave Syracuse 5 N
Huttig Mfg Co 701 E 2nd St Muscatine Ia
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Dahlgren Tool Co 2251 Kishwaukee St
Delta Tool Steel Corp 3306 Market St E
Diamond Expansion Bolt Co Inc 500 North Ave
Gordon-Gardner Co Gardner & First Ave
Hayden Twist Drill Co 7425 W 81st St Chicago 89 Ill
Hood Bros 4336 Orchard St Philadelphia 24 Pa
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Monitor Electric Tool Corp 840 W 24th St New York 71 NY
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STGLITZ CORP 2907 PORTLAND AVE MILWAUKEE WIS
TEMCO INC 4151 CHARLOTTE AVE NASH- TOWN 8 PA
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Cannelton Sewer Pipe Co 4th & Washington St
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Evans Pipe Co 385 Newport Ave Urbachieville O
JOHNS-MANYVILLE CORP 22 49TH ST NEW YORK 16 NY
Klein Ave Co Spring St Box 128 Toronto O
Levan Clay Prods Co Box 695 Logan O
OWENS-CORNING FIBERGLAS CORP NATL BANK BDG TOLEDO 1 O
Rbkraftk Co 510 N Dearborn St Chicago 10 Ill
Robinson Clay Mfg Co 65 W State St Akron O
SONOCO PRODS CONSTRUCTION PRODS 104 SOUTHWAY MALLVILLE SC
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Superior Clay Corp Lock Drayer 552 Urbachieville O
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COLEMAN CO INC 250 N 5TH FRANCIS WICHITA 1 KAN
Excelsior Steel Furnace Co 546 W Washington Chicago 6 Il
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Glenhern Inc Inc 1900 Kendall N E Washington 2 DC
Hoff Furnace Co Medina O
INLAND STEEL PRODS CO 4141 W BURNHAM CHICAGO 1 W
INTERNATIONAL OIL BURNER CO 3500 S E ST LOUIS 19 MO
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THE MAJESTIC CO INC HALL ST HUNTINGTON 2 Mich
Meyer (F. & R) Co 308 S Commercial
MUELLER CLIMATROL CORP 2005 W CHICAGO AVE MICHIGAN-VILLE 12
Olsen (C. A) MFG CO FIBERT BY ELYRIA
Reynolds Steel & Mfg Co 6 Iron Ave Dover O
REYNOLDS METALS CO BLDG PRODS Div 2901 S NINTH ST LOUISVILLE 1 K
Rbkraftk Co 510 N Dearborn St Chicago 10 Ill
Tuller-Steel Tank & Mfg Co 100 S Hancock
Freeport Ill
Tuller-Steel Art Mfg Co Box 972 6tf 156 O
Tyra (R K) Co Highway 61 Tyras Minn
THE WILLIAMSON CO 5708 MADISON RD CINCINNATI 9 O

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April 1957
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Day-Brite Lighting Inc 16 N 9th St St Louis 1 Mo

Delta Faucet Div Masco Screw 12825 Ford Rd Dearborn, Mich

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KOHLER CO 44 HIGH ST KOHLER WIS

Meadow Steel Corp 1200 Pine St Dubuque 1 IA

Hewitt Brass Mfg Co 351 E RESER- VIOE MILWAUKEE 12 WIS

MODERN FAUCETS MFG CO 1700 EAST 42ND ST NEW YORK 15 NY

MARKET METAL MFG CO 1526 E 49TH ST CLEVELAND, O

MODERN FAUCETS MFG CO 51 URBAN AVE WESTBURY LI NY

Repeal Brass Mfg Co 2109 East 27th St Los Angeles, Cal

Farwell Metal Fabricating Div 1113 Frdf Ave W St Paul 1 Minn

FLINTKOTE CO 1700 EAST 58TH PLACE LOS ANGELES 1 CAL

REPUBLIC STEEL CORP REPUBLIC BLDG CLEVELAND 3 OH

SAINT PAUL CORRUGATING CO S END WARASHA ST ST PAUL 1 MN

Tiffin Art Metal Co Box 897 Tiffin 16 O

Tyco (K C) Ho Highway 61 Tyra Miss

Wheeling Corrugating Co 1134 Marseet St Pittsbur 8

M Yek Mfg Corp 379 Tecumseh St Dundee Mich

FLASHING, ALUMINUM

Allen Steel Prods Inc 2941 E Ten Mile Rd Hazel Park, Mich

ALUMINUM CORP OF AMERICA 1561 ALCOA BLVD MILWAUKEE 1 WIS

Farwell Metal Fabricating Div 111 Frdf Ave W St Paul 1 Minn

Gleicher Inc 1900 Kendall NE Washington 2 DC

Heckmann Bldg Prods Co 4018 West Lake Cleveland 14 OH

KAISER ALUMINUM & CHEM SALES 1915 S 3700 CHICAGO 11 ILL

NICHOLS WIRE & ALUMINUM CO 1725 BURLINGTON RD DAVENPORT IA

Penna Supply Metal Corp 1381 N Fifth St Philadelphia 23 PA

QUAKER STATE METALS CO MANHEIM NURSE ST N MANHEIM PA

REVERE COPPER & BRASS INC 230 PARK AVE NEW YORK 17 NY

REYNOLDS METALS CO BLDG PRODS DIV 3041 S NINTH ST LOUISVILLE 1 KY

Tinno Co 110 Laurel St Lancaster Pa

Winking Corp PO Box 1410 TERRE HAUTE IN

FLASHING, TIN, METAL

FOLLANSBEE STEEL CORP FOLLANSBEE W WA

INLAND STEEL PRODS CO 4181 W BURNHAM W ELK GROVE VILLAGE IL

Kenova Hardwood Flooring Co Wood St Kenova W Va

LUMBER CO PO BOX 5106 CHESTER 3 MO

HARRIS MFG CO GROVER AT WALNUT JOHNSON CITY TENN

WOOD-MOSAIC INC EAGAN AVE LOUISVILLE KY

WOOD-MOSAIC INC EAGAN AVE LOUISVILLE KY

FLOORING, BIRCH

ATLAS PLYWOOD CORP 1432 STATLER BLDG BOSTON 16 MASS

CONNOR LUMBER & LAND CO 231 THOMAS ST WAUSAU WIS

Camm & Hanlon Odessa, NY

Graybeal (C E) & Sons PO Box 109 Roan Mountain Tenn

Hardwood Corp of America PO Box 1091 Asheville NC

HARRIS MFG CO GROVER AT WALNUT JOHNSON CITY TENN

HEIDEL EAGAN AVE LOUISVILLE KY

FLASHING, CENTRAL OHIO

AMERICAN SISALKRAFT CORP 25 STARKEY AVE ATTLEBORO MASS

ANGIER CORP 1000 FOUNTAIN ST FRAMINGHAM MA

BARRETT DIV ALLIED CHEM & DYE 40 RECTOR ST NEW YORK 6 NY

PIONEER DIV THE FLINKOTE CO TERM ANX B2218 LOS ANGELES 54 CAL

BROOKE (E L) CO 1648 THOMAS BOX 397 MEMPHIS 1 TENN

CEREL 24TH AVE CHICAGO 11 ILL

CECO STEEL PRODS CORP 2501 W 24TH ST CHICAGO 15 ILL

CHASE BRASS & COPPER CO INC 236 GRAND WATERBURY 20 CONN

Chesapeake Steel Prods Co 2625 Prospect St Tren-

THE DELTA CO 333 W 24TH PL CHICAGO 111

Favell Metal Fabricating Div 111 Frdf Ave W St Paul 1 Minn

Gleicher Inc 1900 Kendall NE Washington 2 DC

Heckmann Bldg Prods Co 4018 West Lake Cleveland 14 OH

House Co Inc 2826 Second Ave Pitts-

Laboratory Mfg Co 1526 E 49TH ST CLEVELAND, O

CENTRAL OAK PRODS CO 3006 W 24TH ST CHICAGO 11 ILL

CEN- CENTRAL OAK PRODS CO 57 FOREST ST BATTLE CREEK 3 MI

Robertson Div BRASS INC 526 PARK AVE NEW YORK 17 NY

FLOORING, HARDWOOD, MAPLE

Babcock Lumber Co Frick Bldg Pittsburgh 19 Pa

GEORGE PACIFIC CORP EQUITABLE BLDG PORTLAND 1 ORE

JOHNSTON CITY TENN

GEORGE PACIFIC CORP EQUITABLE BLDG PORTLAND 1 ORE

HARRIS MFG CO GROVER AT WALNUT JOHNSON CITY TENN

HARDWOOD MFG CO OF NEW YORK 17 NY

HARDWOOD MFG CO OF NEW YORK 17 NY

HARRIS MFG CO GROVER AT WALNUT JOHNSON CITY TENN

FLOORING, FIRE

Agnus Lumber Co 908 B St Centralia Wash

Babcock Lumber Co Frick Bldg Pittsburgh 19 Pa

GALESTON BLDG PAYNE 4615 OAKLAND CITY IN

Glenwood Lumber Co 351 E RESER- VIOE MILWAUKEE 12 WIS

COOKE'S THERMAL THERAPY

GEOGRAPHICAL MANUFACTURERS' GUIDE: 2000 AD

THE JOHNSTON CITY TENN

THE JOHNSTON CITY TENN
FLOORING, HARDWOOD, OAK & PACAN

Anderson Tully Co PO Box 28 Memphis 10 Tenn.

ARKANSAS OAK FLOORING CO 2280 W FIFTH AVE BLUFF AVE

Babcock Lumber Co Frick Bldg Pittsburgh 19 Pa

Barnes Lumber Co Charlottetown Va

BROOKLYN HARDWOOD FLOORING CO OF ARMS PO BOX 256 WARREN ARK

CMPS Lumber Co 1448 THOMAS BOX 397 MEMPHIS 1 TENN

C pent Oak Flooring Co 2255 S Lumber Chicago 16 Ill

Tiff Back Lumber Co 2255 S Lumber Chicago 16 Ill

HUGGINS INDUSTRIES INC PO BOX 8149 NEW ORLEANS 52 LA

FLOORING, PINE

Babcock Lumber Co Frick Bldg Pittsburgh 19 Pa

Barnes Lumber Corp Charlottesville Va

BROOKLYN HARDWOOD FLOORING CO OF ARMS PO BOX 256 WARREN ARK

CMPS Lumber Co 1448 THOMAS BOX 397 MEMPHIS 1 TENN

C pent Oak Flooring Co 2255 S Lumber Chicago 16 Ill

HUGGINS INDUSTRIES INC PO BOX 8149 NEW ORLEANS 52 LA

FLOORING, PLANK

Anderson Tully Co PO Box 28 Memphis 10 Tenn.

ARKANSAS OAK FLOORING CO 2280 W FIFTH AVE BLUFF AVE

Babcock Lumber Co Frick Bldg Pittsburgh 19 Pa

Barnes Lumber Co Charlottetown Va

BROOKLYN HARDWOOD FLOORING CO OF ARMS PO BOX 256 WARREN ARK

CMPS Lumber Co 1448 THOMAS BOX 397 MEMPHIS 1 TENN

C pent Oak Flooring Co 2255 S Lumber Chicago 16 Ill

HUGGINS INDUSTRIES INC PO BOX 8149 NEW ORLEANS 52 LA

FLOORING, PREFINISHED

BRADLEY LUMBER CO OF ARKS PO BOX 256 WARREN ARK

BRUCE (E L) CO 1448 THOMAS BOX 397 MEMPHIS 1 TENN

HUGGINS INDUSTRIES INC PO BOX 8149 NEW ORLEANS 52 LA

FLOORING, MARBLE

CAMP CO INC 8588 S STATE CHICAGO 21 ILL

CAMPBELL Marble Corp Box 612 Carthage Mo

VERMONT MARBLE CO PROCTOR VT

FLOORING, PARQUETRY

Barger (P M) Lbr Co Stateville Nc

Barnes Lumber Co 2265 S Lumber Chicago 16 Ill

BRADLEY LUMBER CO OF ARKS PO BOX 256 WARREN ARK

BRUCE (E L) CO 1448 THOMAS BOX 397 MEMPHIS 1 TENN

HUGGINS INDUSTRIES INC PO BOX 8149 NEW ORLEANS 52 LA

FLOORING, PANELS

BRADLEY LUMBER CO OF ARKS PO BOX 256 WARREN ARK

BRUCE (E L) CO 1448 THOMAS BOX 397 MEMPHIS 1 TENN

HUGGINS INDUSTRIES INC PO BOX 8149 NEW ORLEANS 52 LA

FLOORING, PREFINISHED

BRADLEY LUMBER CO OF ARKS PO BOX 256 WARREN ARK

BRUCE (E L) CO 1448 THOMAS BOX 397 MEMPHIS 1 TENN

HUGGINS INDUSTRIES INC PO BOX 8149 NEW ORLEANS 52 LA

FLOORING, PANELS

BRADLEY LUMBER CO OF ARKS PO BOX 256 WARREN ARK

BRUCE (E L) CO 1448 THOMAS BOX 397 MEMPHIS 1 TENN

HUGGINS INDUSTRIES INC PO BOX 8149 NEW ORLEANS 52 LA

FLOORING, PARQUETRY

Barger (P M) Lbr Co Stateville Nc

Barnes Lumber Co 2265 S Lumber Chicago 16 Ill

BRADLEY LUMBER CO OF ARKS PO BOX 256 WARREN ARK

BRUCE (E L) CO 1448 THOMAS BOX 397 MEMPHIS 1 TENN

HUGGINS INDUSTRIES INC PO BOX 8149 NEW ORLEANS 52 LA

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COLEMAN CO INC 256 N ST FRANCIS WHITCAL 4368 0

COMBUSTION ENGINEERING INC 911 W MODESTO WAY MODesto, CALIF 95350

CRANE CO 888 S MICHIGAN CHICAGO 5 ILL

Crane Electric Industries Eugene Ore

DAY & NIGHT ROYAL OAKS DR ORMOND CAI

Detroit, Mich 48220 W Commerce St

Dallas Tex

DELCO APPLIANCE DIV GNL MOTORS 1501 LYELL AVE ROCHESTER 1 NY

Div-Therm Div Motor Corp 1311 N Capitol Ave

Indianapolis Ind

Downeast Steel Furnace Co Dowagiac Mich

Duck-Therm Div Motor Corp 93 W Lancing 3 Mich

Economaster Sales Inc 705 Merrill Ave Nash-ville Tenn

Excelsior Stove & Mfg Co 634 S Front St

Quincy Ill

Fowler Mfg Co 2545 SE Gladstone Portland Ore

FRIEGTAMER DIV GENERAL MOTORS CO 3700 1ST ST TAYLOR DAVENPORT 23 IA

GENERAL ELECTRIC CO APPLIANCE PARK LOUSVILLE 1 KY

General Piping Co PO Box 161 E Greenfield Wis

General Water Heater Corp 1 E Magnolia Blvd Burbank Cal

Gillen (J L) Co 12302 Worman Ave Detroit 28 Mich

GILBERT CO 2360 CLIFTON RD

NASHVILLE TENN

HANDLEY-BROOKER HEATER CO 2001 BROAD RD JACKSON MICH

HENDRICKS (M M) MFG CO INC 708 E MAIN ST BURLINGTON IA

HOTPOINT CORP 5400 W TAYLOR ST CHI-CAGO 44 ILL

HOTSTREAM HEATER CO 2304 69TH ST CLEVE-LAND 14 O

HYDRAULINE PRODS DIV BORG-WARNER 1852 MACK AVE DETROIT MICH

HYDROTHERM INC CLINTON AVE NORTHEAVEN N Y

Hynes & Co Electric Co Cables Hoos & Elm St Waterbury N Y

Johnson Prods Co 3703 E 83RD St Cleveland 12 O

Jetronaire Inc 1100 E Warrington Pittsburgh 29 Pa

JOHNSON (E T) CO 944 ARLINGTON AVE OAKLAND 5 CAL

Kokanee, Wash State Motors Co 14250 Plymouth Rd Detroit 32 Mich

KINDLY & BRO INC 154 105TH AVE JERSEY CITY 8 N J

KVON & BRO INC 104 GEDEN AVE JERSEY CITY 8 N J

Krycak Mfg Co 2nd & H Sta Petaluma Cal

Kwik-Stow Mfg Co 109 N 10th Kansas City 6 Mo

Lawson Mfg Co 155 New Kensington Pa

J A LINDemann & HOUSER CO 461 W CLEVELAND AVE MILWAUKEE 15 Wis

LITTLE (L C) HURNER CO PO BOX 60 SAN RAFAEL CALIF

Midwest Heater & Specialty Co 2301 Pacific Ave Tacoma Wash

Monarch Malleable Iron Range Co 15117 Lake St Beaver Dam Wis

Motor Wheel Corp Lansing Mich

MUSTIQUE MFG CO 1575 Quincy Tl

M V D HERMANN CORP 1501 ORIEN AVE CLEVELAND 2 0

NATIONAL RADIATOR CORP 225 CENTRAL AVE JOHNSTOWN PA

NORGE DIV BUTLER HEATER CORP RM 234 MDST MARY CHICAGO 111

NORRIS TRADING CORP 3215 S BOYLE AVE LOS ANGELES 8 CAL

Onda Stove Mfg Co 1542 West 12th Erie Pa

Pender Mfg Co 2125 25TH St Houston 2 Mich

PERFECTION INDUSTRIES DIV HUPP CORP 1182 IVANHOE RD CLEVELAND 18 O

Perry 3710 W 106TH St Chicago 11 O

Philadelphia Electrical Mfg Co 1750 N 31st St Philadelphia 21 Pa

Plumco Water Heater Corp 5131 San Fernando Los Angeles 65 Cal

Queens Stove Works Inc 605 Front St Albert Lea Minn

Quiet Automatic Burner Corp 32 Bloomfield Ave Newark 4 NJ

Ray Oil Burner Co 1301 San Jose Ave San Francisco Cal

Republic Heater Div Ovion Stove Mfg 2231 Randolph St Huntington Park Cal

 Rheem Mfg Co 7600 S KEDZEY AVE CHI-CAGO 25 ILL

Richmond Stove Co Inc 11th & Hospital Sta Richmond 5 Va

Richmond Mfg Co 2325 E CRANDON St Milwaukee 12 Mich

RUTHERFORD MFG CO 3230 FACTORY ST KAL-AMAZO 24 MICH

Saucel Co Div Timlin Silent Automatic 26 Ann St Oakmont Pa

Senge Corp 960 Centre St Pottstown Pa

SMITH (A O) CORP PERMAGLASS DIV PO BOX 28 ALAMO ILL

Stover Steel Tank & Mfg Co 100 S Hance-wood 5 Pa

Suburban Propane Gas Corp Box 206 Whippany N J

Taco Heaters Inc 1160 Cranston St Cranston 3 RI

THERMADOR ELECTRIC MFG CO 4159 DISTRICT MFG. CO 3015 TWIN HILL MIDWEST 20 ILL

UTILITY APPLIANCE CORP 4651 S ALA-MEDA ST LOS ANGELES 5 CAL

Viking Mfg Corp 1747 Chester Ave Cleveland 14 O

Vulcan Electric Co 88 Holten St Danvers Mass

Wagner Mfg Co Sligo Dr Box 7088 S Nash-ville 18 Tenn

Waldorf Heater Co 1421 Chestnut St Philadelphia 2 Pa

WATERFILM BUILDS INC 26-48 NEW YORK AVENUE JERSEY CITY 8 N J

Wayne House Co Inc 13052 Hotchkiss Ave Box 350 East Fifth St San Francisco Cal

WASHINGTON ELECTRICAL CORP PO BOX 264 PITTSBURGH 8 PA

Wesco (J D) Co 1044 W MacArthur Ave Sterling 8 Cal

Whirlpool Div Bo 7500 Thomas Blvd Pittsburgh 8 Pa

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Bremner Mfg Co N Washington Harrisburg E Pa

Brower Mfg Co 57 E 35TH St New York 7 NY

Challenger Lock Co 4866-4900 Exposition Los Angeles Cal

CORNISH CABINET LOCK DIV AMERICAN HDWE CORP 187 WASHINGTON ST NEW BRITAIN CONN

CORNOR (P & F) DIV AMERICAN HDWE CORP 162 WASHINGTON ST NEW BRITAIN-CONN

Flawle Equipment Mfg Co 105 Reade St New York 1 N Y

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Penn-Akre Hidwe Corp 22d Ave & 57th St Woodside, NY
Phoenix Lock Co 807 3rd Ave Newark 2 NJ
RICHARDS-WILCOX MFG Co 200 THIRD ST CHICAGO 2 IL
RUSSELL & ERWIN DIV AMERICAN HINGE & Fittings NEW BRITAIN CONN
Sears, Roebuck & Co 115 SW 8th Ave Portland 17 OR
STANLEY WORKS NEW BRITAIN CONN
Stonewall Lock Co 249 Pearce St Sharon Pa
Stony Point Lock Co 115 SW End Ave Lancaster Pa
S. W. Smith & Co 5716 WEST 96TH ST LOS ANGELES 58 Cal
STANLEY WORKS NEW BRITAIN CONN United States Lock & Hidwe Co Columbus Pa
Wright Prods Inc St Paul Park Minn

Hinges, Continuous

Breen (J G) Co 537 W 35th St New York 1 NY
Carver McFall Co 2156 E Dauphin St Philadelphia 15 Pa
Hager (C) & Sons Hinge Mfg Co 135 VICTOR ST ST LOUIS 4 MO
Ideal Steel Products Co Inc 560 East Fifth St St Paul 1 Minn
Knaip & Larkin Co Inc 665 Richmond N W Grand Rapids 4 Mich
Morgan-Wightman Supply Co 1541 S ALLEN ST ST LOUIS MO
National Lock Co 1902 7TH ST ROCKFORD ILL
Parker (S) Hidwe Mfg Corp 27 Ludlow St New York 10 NY
Penn-Akre Hidwe Corp 32nd Ave & 57th St Woodside 77 NY
Stanley Works NEW BRITAIN CONN
Wingate Supply Inc 1424 San Fernando Glendale 4 Cal

Hinges, Invisible

ACME APPLIANCE MFG Co 35 S RAYMOND ST PASADENA 1 CAL
AMEROCK CORP 414 S MAIN ST ROCKFORD IL
National Lock Co 1902 7TH ST ROCKFORD IL
Parker (S) Hidwe Mfg Corp 27 Ludlow St New York 10 NY
Penn-Akre Hidwe Corp 32nd Ave & 57th St Woodside 77 NY
RICHARDS-WILCOX MFG Co 229 THIRD ST AURORA ILL
Sons MFG Co 2177 HOOVER RD DETROIT 18 Mich
Washington Steel Prods 1940 East 11TH ST TACOMA 2 Wash

Hoists

Aeroil Prods Co Inc 69 Wesley St S Hackensack Paterson 1 New Jersey
Ameerco Engineering Co 70th St Milwaukee 1 Wis
American Engineering Co Wheatland L & S Division Philadelphia Pa
American Hidwe & Derrick Co 63 S Robert St Chicago 6 Ill
C H & E Mfg Co 3549 N Palmer St Milwaukee 12 Wis
Chisholm-Moore Hidwe Div Fremont Ave Tonawanda NY
Cleveland Trammal Div 5695 28th St Wickliffe O
Clyde Iron Works Inc 29th Ave & W Mich Detroit 14 Mich
Conning Hidwe Div Duft-Norton 800 Walters St Milwaukee 1 Wis

Construction Machinery 428 VINE STREET, CINCINNATI 20 OH
Detroit Hidwe & Machine Co 9298 Morrow St Detroit 14 Mich
Downs Crane & Hidwe Co 540 W Vernon Ave Pilsen Chicago 11 Ill
Electro-Lift Inc 294 Sargent Ave Clifton NJ
Enicof Inc 1500 Santa Fe Ave Los Angeles 21 Cal
Gardner-Denver Co Gardner & First Ave Denver 28 Col
Harnischfeger Corp 4406 W NATION-AL HALL Milwaukee 16 Wis
Hyster Co 2900-18 NE Clikmas Portland 8 Ore
James Dick Co Inc 521 W 11TH ST COLUMBUS 14 O
Kline Bros Inc 418 W 37TH ST Chicago 11 Ill
Leyendecker Prods Inc 1556 Walnut St Watertown 72 Mass
Louden Machinery Co 2504 North Court Fairfield O
Menfield Mfg Co 35 Garvey St Everett 49 Mass

Military Power Systems Inc 53006 N BROADWAY ST LOUIS 15 MO
North American Engine Co Ballantine St Lansing 8 Mich

NATIONAL HINGE SUPPLY CO 1541 S ALLEN ST ST LOUIS MO

Ohio Hidwe & Mfg Co Inc 1911 Shaker Sq Cleveland 22 O
Cemco Industries Inc Galion O
Daybrook Hidwe Co La Young 500 Lehm-ann Ave Bowling Green O
Gallen All-Steel Body Co Galion O
Gallin Reversible Window Co Aurora & Cannon 22 Ill
Gongamek Mfg Co Inc 3550 E 30TH ST Chicago 10 Ill
Hercules Steel Prods Co Galion O
Hyster Co 2900-18 NE Clikmas Portland 8 Ore
Little Giant Prods Inc 3550 N E Adams Ave Cleveland 22 O
Marion Metal Prods Co Cheney Ave at Otis Mass
Market Force Corp 25 Garvey St Everett 49 Mass
McCabe Powers Auto Body Co MFG 1590 W BROADWAY ST LOUIS 15 MO
Ohio Hidwe & Mfg Co Inc 1911 Shaker Sq Cleveland 22 O
Perfect Form Body Co S East St Galion O
Sangen Derrick Co 3101 West Grand Ave Chicago 22 Ill
Shaw-Box C & H Div 414 Broadway Muske-gon Mich
Silent Hidwe & Crane Co 875 63rd St Brook-lyn 27 NY
Stimmel Winch Co Inc 27-34 33rd St Long Island City 1 NY
Thermex Corporation 3816 W Fourth St Minn

RANGES, HOODS

Anthony Hardware Mfg Co Inc 437 Main St Union 33 O
Berns Appliance MFG Co 437 EAST 105TH ST ROCKFORD 16 Ill
Brooks Hidwe & MFG Co INC 820 W STATE ST HARTFORD 23 Wis
Chelsea Fan & Blower Co INC 463 S AVENUE PLAINFIELD NJ
Pasco Industries INC 255 N UN BOX 588 ROCHESTER 2 NY
Gray & Dudley Co 2300 CLIFTON RD NASVILLE TENN
Jensen Industries 159 S Anderson Los Angeles 21 Cal
Morgan-Wightman Supply Co 1541 SALVATION ST LOUIS MO
Pioneer Water Heater Corp 3131 San Fernan-ado Los Angeles 65 Cal
Preway MFG Co 1450 SECOND ST N WIS RAPIDS WIS
Progress MFG Co INC CASTOR & TULIP AVE PORTLAND 14 PA
Prune & Co INC 148 N TOWNE POMALA CAL
Steward Industries INC 320 E ST JOSEPH INDIANAPOLIS 27 Ind
Swanson MFG Co 407 S WASHINGTON OVIANA O
Trade-Wind Motor Fans INC 7755 PARAMOUNT BLVD RIVERA CAL
Univac Ind 1090 S Adams Ave Chicago 16 Mich
Vent-A-Hood Co 1190 1997 PLANTATION DR DALLAS 19 TEX
Ventserve Inc Mfg Co 561 S Chestnut St Owosso 1 Mich
Wing (The Sam A) Co Inc 5055 Willis Ave Dallas Tex

INCINERATORS

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The Adams Mfg Co Box 264 DUBUQUE 1A

Adams MFG Co INC 280 E 49TH ST CLEVELAND 4 O

Doris Dorr & Darrell Dorr, Owners. The Adams Company
111 W 9th St, Dubuque, Iowa

Alsto Co 4507 Detroit Ave Cleveland O
American Insulating Corp 8716 E Nevada St Detroit 11 Mich
Brock Machinery Corp 407 S Dearborn St Chicago 3 Ill
Caldwell Corp 28TH & WATSON ST BAY CITY MICH
Coneill & Sexton Co 700 N SABRE-MENTO CHICAGO 12 ILL
Dietrich Bros Inc 700 S E Van Buren Rd Balti-more 18 Md
Dwyer Bros & Co 10190 MILES AVE CLEVELAND 5 O
Due-Therm Div M Hse & Wash Lansing 3 Mich
Fiske (W) Architectural Metals 111-117
Penn Ave Paterson 2 NJ
Gichner Inc 1000 Kendall N E Washington 2 DC
Godier Innsulating Corp 407 S Dearborn St Chicago 3 Ill
Godier (Joseph) Inc 4241 N Honore St Chic-ago 13 Ill
Henderson Furnace Co Medina O
Hollander Furnace Co Holland Mich
Hose & Stream HEATER CO 2342 E 49TH ST CLEVELAND 4 O
Illinois Iron & Bolt Co Canterville Ill
Innsulating Div BOWSER INC 4266 STYCAMORE ST CLEVELAND 4 O
Innsulating Prods Co 633 S Post Ave Detroit 17 Mich
Industrial Hidwe Works PO Box 4625 Port-land 2 Ore
Ingersoll & Co AIR CONDITIONED DIV BORG-WARNER CORP 702 RALAMAZOO MICH
Kernig Innsulator Div 46 Fifth Ave New York 11 NY
King Stove & Range CO PO Box 271 Sheffield Ala
Locke Stove Co 114 W 11th St Kansas City 5 Mo

The Majestic CO INC BALL HALL ST HUNTING-TON IND
Neaco Inc PO Box 6 Granite City Ill
Oakland Foundry CO BELLEVILLE ILL

Ohio Mfg Co 342 West 12th Erle Pa
Olsen (C A) MFG Co FILBERT ST ELYRIA O

Pioneer Specialties Inc 1645 Hennepin Ave Minneapolis Minn
Pittsburgh Innsulator Co 150 Beam Way Pittsburgh 11 Pa
Queen Stove Works Inc 506 Front St Albert Lone Minn
The Quincy Stove Mfg Co 826 S Front St Quin-cy 4 Ill
Republic Hidwe Div Ond Stove Mfg 2231 Randolph St Huntington Park Cal
Russell (F C) Co 1100 CHESTER AVE CLEVELAND 1 O
Seattle Boiler Works Inc 501 S Chestnut St Owosso 1 Mich
Suburban Propane Gas Corp Box 296 Wash-ington NJ
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ANGIER CYPRENT BOUNTY ST PARING-HAM NY
Asbestos Asphalt Insec 2160 Fullerton Ave Chicago 47 Ill
Coast Insulating Fods 2316 San Fernando Los Angeles 65 Cal
CROSBY (G & W H) INC PLANT MEETING PAR
THE DELTA CO 333 S 34TH PL CHICAGO 17 IL
INFRA INSULATION INC 35S BROADWAY NEW YORK, NY
Insulation Industries Insec 100 E 69th St Cincinnati 70 OH
Janesville Cotton Mills 100 E 69th St Cincinnati 11 OH
Janesville Cotton Mills 220 N Franklin St Janesville WI
KAISER ALUMINUM & CHEM SALES 913 N MICHIGAN AVE CHICAGO 11 IL
LIFETIME INDUSTRIES INC 429 BENJAMEN MANSION ROAD LOS ANGELES 34 NY
Logan-Long Co 6600 S Central Ave Chicago 59 Ill
LUDLOW PAPERS INC NEEDHAM HTS 94 MASS
Old American Roofing Mills Div Burbank Co 300 Fifth Ave New York 56 NY
Protective Papers Inc Union Ill
QUAKER STATE METALS CO MANHATTAN PIKE CLEVELAND OH
REFLECTAL CORP SUBSIDIARY BORG WARNER 310 S MICHIGAN AVE CHICAGO 11 ILL
REYNOLDS METALS CO BLDG PRODS DEMPSEY 3 N 300 S 3RD STREET NEW YORK, NY
Streete Mfg Co 4214 Gratiot St S St Louis 3 Mo

INSULATION, BATT OR BLANKET, COTTON FIBER

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United States Rubber Co 1230 Ave of Amer New York 20 NY

INSULATION, BATT OR BLANKET, FIBROUS GLASS

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Berkshire Insulation Co Inc 5920 Centre Ave Pittsburgh 6 Pa
Carney Co Inc 106 E Liberty St Mankato Minn
INSULITE DIV MINN OST PAPER CO 500 E 6TH ST MINNEAPOLIS 2 MN
KOSMOS LUMBER & VENEER CO INC 509 W ROOSEVELT CHICAGO 7 ILL
L-S-F Glass Fods Co 1810 Madison Ave Toledo 1 0
Logan-Long Co 6600 S Central Ave Chicago 59 Ill
Old American Roofing Mills Div Burbank Co 300 Fifth Ave New York 56 NY
OWENS-CORNING FIBERGLASS CORP NATL BANK BLDG TOLEDO 1 0 OH
PIONEER DIV THE FLINTKOTE CORP TERM ANX 31118 LOS ANGELES 44 CAL
PITTSBURGH PLATE GLASS CO 623 FORGE STREET PITTSBURGH 19 PA
RUBEROID CO 505 5TH AVE NEW YORK 36 NY
Sealtite Insulation Mfg Corp 115 Madison St Chicago 11 Ill
Standard Asbestos Mfg Co 606 W Evergreen Ave Chicago 22 Ill

INSULATION, BATT OR BLANKET, MINERAL WOOL

Armco Asbestos Covering & Flooring Co 239 N Elizabeth Chicago 7 Ill
Asbestos Insul Co Inc 2160 Fullerton Ave Chicago 47 Ill
Baldwin Hill Co 6600 S Creutzer Ave The Bronx 2 NY
BARRETT DIV ALLIED CHEM & DYE 49 RECTOR ST NEW YORK 6 NY
Bergman Insulation Co Inc 6925 Centre Ave Pittsburgh 6 Pa
CANTERBURY MFG CO 220 S WAYNE CINCINNATI 15 O
Carpenter Co 126 E Liberty St Mankato Minn
CHAMBERLAIN CO OF AMERICA 1540 CAMBIASO ST DETROIT 32 MICH
Coast Insulating Fods 2316 San Fernando Los Angeles 45 Cal
Columbia Asbestos & Fyreproofing Stanhope NJ
CORSON (G & W H) INC PLANT MEETING PAR
Eagle-Picher Co American Bldg Cincinnati 11 O
FLINTKOTE CO 29 ROCKFELLER PLAZA NEW YORK 6 NY
Forty-Eight Insulations Inc Thomas & McGeary Chicago 11 Ill
HUNTINGTON INDUSTRIES INC 3353 PROSPECT ST MEMPHIS TENN
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Tiger Prods Div Basic Inc 848 Hanna Bldg Cleveland 15 O
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PENN METAL CO INC 426 E 42ND STREET
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DEWALT INC FOUNTAIN AVE LANCASTER
Duro Metal Prod Co 2649 N Kildare Ave Chi-
Enterprise Co South Main St Columbusiana O
GOLDBLATT MFG CO INC 4911 11TH WALNUT M
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Albritton Engineering Corp 2501 Wronton Rd Houston 5 Tex
Andrew Repair Co 7642 W 52nd St Kansas City 25 Mo
ANDERSON (WE) 'MPG CO 1515 E 18TH ST OWENSBORO KY
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Barnhart (A W) Co 140 Highland St Port Chester NY
Fiwale Equipment Mfg Co 106 Reade St New York 13 NY
Eagle-Picher Co American Bidg Cincinnati 0
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American Mfg Prods Co 2278 W Chicago Ave Chicago 22 Ill
CAREY PHILIP MFG CO 228 S WAYNE CINCINNATI 15 O
CECO STEEL PRODS CORP 5681 W 26TH ST CHICAGO 26 ILL
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CAGO 3 ILL
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Goodall Rubber Co Inc 427 Whitehead Road Trenton N J
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& 44th Long Island City NY
Keystone Asphalt Prod Co 101 E Ontario St Chicago 11, Ill
Lebo Co 256th & Warren Ave Bellwood I11
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**AMERICAN BUILDER**

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- Excavations & Foundations
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*April 1957*
## Section A Structural Materials

### CONCRETE ESTIMATING FACTORS

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<td>.444</td>
<td>.493</td>
<td>.542</td>
<td>.592</td>
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</tbody>
</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" thick.

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

Use factors from table for 8" wall thickness:

- 24.44 cu. yds.
- 1.848 cu. yds.
- 1.232 cu. yds.

26.61 cu. yds. of concrete required.

Where concrete thickness is on 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

(Cu. Yd. per 10 Lin. Ft.)

<table>
<thead>
<tr>
<th>WIDTH OF FOOTING IN INCHES</th>
<th>DEPTH IN INCHES</th>
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<tbody>
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<td>24</td>
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</tbody>
</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 linear 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 10" x 10" footing contains 462 cu. yds. (or .0462 for 1 lin. ft.)

Multiply .0462 x 108 = .04999 cu. yds. 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.
### NOMINAL LENGTH OF CONCRETE MASONRY WALLS BY STRETCHERS

(Based on units 15\(\text{A}^{\prime}\) long and half units 7\(\text{A}^{\prime}\) long with 4\(\text{\prime}\) thick head joints)

<table>
<thead>
<tr>
<th>LENGTH OF WALL</th>
<th>NO. OF UNITS</th>
<th>LENGTH OF WALL</th>
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<th>NO. OF UNITS</th>
<th>LENGTH OF WALL</th>
<th>NO. OF UNITS</th>
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<tbody>
<tr>
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<td>1</td>
<td>20'-8''</td>
<td>13</td>
<td>40'-8''</td>
<td>30(\text{A}^{\prime})</td>
<td>60'-8''</td>
<td>45(\text{A}^{\prime})</td>
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<tr>
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<td>46</td>
</tr>
<tr>
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<td>1(\text{A}^{\prime})</td>
<td>22'-0''</td>
<td>1(\text{A}^{\prime})</td>
<td>42'-0''</td>
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### NOMINAL HEIGHT OF CONCRETE MASONRY WALLS BY COURSES

(Based on units 7\(\text{A}^{\prime}\) high and \(\frac{1}{2}\) thick mortar joints)

<table>
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<th>HEIGHT OF WALL</th>
<th>NO. OF UNITS</th>
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<tr>
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<td>24'-0''</td>
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</tbody>
</table>

### HOW TO USE THESE TABLES

The tables on this page are an aid to 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 76\(\text{\prime}\) long and 12\(\text{\prime}\) high. From table: 76\(\text{\prime}\) — 57 units 12\(\text{\prime}\) — 18 courses

\[57 \times 18 = 1026\] masonry units required.

**Example:**

Estimate the number of units required for a foundation 24\(\text{\prime}\) x 30\(\text{\prime}\) — 11 courses high. From table: 24\(\text{\prime}\) x 30\(\text{\prime}\) = 720 units

This table can also be useful in the layout of a modular basis to eliminate cutting of units. Example: If the distance between two openings has been tentatively established at 7\(\text{\prime}\), consulting the table will show that 7\(\text{\prime}\) dimension would eliminate cutting of units.
Section A Structural Materials

CONCRETE MASONRY BONDS

- Running Bond
  - 8"x16" Units
- Running Bond
  - 4"x16" Units
- Horizontal Stacking
  - 8"x16" Units
- Vertical Stacking
  - 8"x16" Units
- Square Stacking
  - 8"x8" Units
- Basket Weave
  - 8"x8" Units
- Coursed Ashlar #1
  - 4"x16" and 8"x16" Units
- Coursed Ashlar #2
  - 4"x16" and 8"x16" Units
- Coursed Ashlar #3
  - 4"x16" and 8"x16" Units
- Coursed Ashlar #4
  - 4"x16" and 8"x16" Units
- Patterned Ashlar
  - 8"x8" and 8"x16" Units
- Coursed Patterned Ashlar
  - 4"x8", 4"x12", 4"x16", 8"x12" and 8"x16" Units

Courtesy Portland Cement Association

AMERICAN BUILDER
TYPICAL SHAPES AND SIZES OF CONCRETE MASONRY UNITS

Dimensions shown are actual unit sizes. A 7 1/4" x 3 3/4" x 15 1/4" unit is commonly known as an 8" x 8" x 16" concrete block. Half length units are usually available for most of the units shown below. See concrete products manufacturer for shapes and sizes of units locally available.

STRETCHER
(CORE)
CORNER
DOUBLE CORNER OR PIER
BULL NOSE
JAMB
FULL CUT HEADER
HALF CUT HEADER
SOLID TOP
STRETCHER
(3 CORES)
4" or 6" PARTITION
BEAM OR Lintel

In some areas the above units are available in 4" nominal heights.

FLOOR
SOFFIT FLOOR
SOLID
SOLID BRICK
FROGGED BRICK

STRETCHER
JAMB
CORNER
TROUGH
PARTITION

STRETCHER
CORNER
CHANNEL
STRETCHER
CORNER
CHANNEL
STRETCHER
(modular)
Casing beads of different manufacturers may vary slightly, but the illustrations and dimensions shown here are typical and represent Simplified Practice Recommendation 3-52 promulgated by the U.S. Department of Commerce. They are fabricated from not less than 24 gage galvanized steel and are generally available in lengths of 7 and 10 feet.

Here, 1/2" casing bead is used over the face of gypsum lath. If gypsum lath laps the bead, a 5/16" depth (with short flange) is used. With metal lath the depth is 3/16".

If the door frame is erected after plastering, the casing bead is installed flush with the buck. A small molding closes the joint between buck and frame.

Glass blocks are wider than wood studs, requiring a 3/8" casing bead to be placed over the gypsum lath. Expanded flange on bead reinforces the plaster.

This 3/4" casing bead provides for 3/4" of plaster over 3/4" gypsum lath as required by FHA. Casings are mitered or coped to form neat corners at head of opening.
Section A Structural Materials

STUDELESS 2" SOLID PARTITIONS

**CEILING ATTACHMENTS**

**METAL DOOR BUCK**

Alternate Construction:
Channels need not extend to ceiling or may be omitted entirely if other means of attaching lath are provided and buck is temporarily braced until plastering is completed.

**CASED OPENINGS**

**WOOD DOOR BUCK**

Joint between plaster and buck to be covered at least 1" by trim

**FLOOR ATTACHMENTS**

*Courtesy Metal Lath Manufacturers Association*
The following table gives the total safe uniformly-distributed load-carrying capacities, in pounds per linear foot, of Open Web Steel Joists and Nailer Joists, adopted by the Steel Joist Institute. The weight of dead loads must in all cases be deducted to determine the live load-carrying capacities of the joists. When Nailer Joists (those with suffix W) are used, they should not be spaced farther apart than the safe span of the wood deck or other material used over them.

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<td>†Approximate Weights per Linear Foot</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resisting Moment in Kips</td>
<td>29.5</td>
<td>52.5</td>
<td>63.</td>
<td>82.</td>
<td>100.</td>
<td>92.</td>
<td>115.</td>
<td>142.</td>
<td>175.</td>
<td>156.</td>
<td>205.</td>
<td>246.</td>
<td>232.</td>
<td>261.</td>
<td>255.</td>
<td>310.</td>
<td>340.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Maximum End Reaction in Kips</td>
<td>1.60</td>
<td>1.90</td>
<td>1.90</td>
<td>1.95</td>
<td>2.20</td>
<td>2.20</td>
<td>2.30</td>
<td>2.50</td>
<td>2.70</td>
<td>2.90</td>
<td>3.10</td>
<td>3.40</td>
<td>3.20</td>
<td>3.60</td>
<td>3.60</td>
<td>3.80</td>
<td>3.90</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Indicates Nominal Depth of Standard Steel Joists only. See Manufacturers' Catalog for Depths of Nailer Steel Joists. † Approximate Weights per Linear Foot of Joists includes accessories, but does not include wood nailer strip.

Adopted by the Steel Joist Institute August 20, 1929 and Revised to September 16, 1952.

This Table in accordance with Simplified Practice Recommendation No. 894-63 of the Bureau of Standards, U.S. Dept. of Commerce.
Section A Structural Materials

INSTALLATION OF STEEL JOIST

Strut Bridging
End Wall Anchors
Centering
Sag Rods
Beam Anchors
Header Construction
Horizontal Bridging
Side Wall Anchors
Welded Connection
Rod and Wire Bridging
Pipes and Ducts
Bolted Connections

Courtesy Steel Joist Institute
Damp checks should be placed about 6" above grade to prevent moisture, absorbed from the ground by exterior foundations, from traveling upward by capillary action into the wall above.

Flashing should be placed under and behind both masonry and wooden sills. All heads of openings, except those protected by projecting eaves or heads, should have through flashing.

Spandrel beams should be flashed continuously throughout their length. Where columns occur above the beam, the flashing should be turned up approximately 6".

Base flashing or chimneys should extend well back under the roof covering. Counter flashing should be imbedded securely in the mortar joints of the chimney wall.

Projections and recesses from the exposed face of the wall tend to hold water or snow and should be flashed, preferably over the top with the outer edge of the flashing bent down and folded as a drip.

Various methods of parapet wall flashing. Unless wall coping is of an impervious material with watertight joints, through flashing should be placed in the mortar bed under the coping.

Courtesy Structural Clay Products Institute
### TABLE 1
**FOUR-INCH MODULAR BRICK FACING WALLS**

<table>
<thead>
<tr>
<th>Nominal Size of Brick</th>
<th>Number of Bricks per Sq. Ft. of Wall</th>
<th>Cu. Ft. of Mortar per 3/8&quot; Joint</th>
<th>Cu. Ft. of Mortar per 1/2&quot; Joint</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-1/2 x 4 x 8</td>
<td>6.00</td>
<td>0.0676</td>
<td>0.09</td>
</tr>
<tr>
<td>2 x 4 x 12</td>
<td>6.00</td>
<td>0.0676</td>
<td>0.09</td>
</tr>
<tr>
<td>4 x 4 x 8</td>
<td>4.50</td>
<td>0.0432</td>
<td>0.0575</td>
</tr>
<tr>
<td>4 x 4 x 12</td>
<td>3.00</td>
<td>0.039</td>
<td>0.052</td>
</tr>
</tbody>
</table>

* Actual size plus thickness of one joint
** 10% added for waste

---

### TABLE 2
**EIGHT- AND TWELVE-INCH BRICK BACKUP WALLS**

<table>
<thead>
<tr>
<th>Nominal Size of Brick</th>
<th>Number of Bricks per Sq. Ft. of Wall</th>
<th>Cu. Ft. of Mortar per 3/8&quot; Joint</th>
<th>Cu. Ft. of Mortar per 1/2&quot; Joint</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-1/2 x 4 x 8</td>
<td>13.50</td>
<td>0.1544</td>
<td>0.1988</td>
</tr>
<tr>
<td>4 x 4 x 8</td>
<td>9.00</td>
<td>0.1210</td>
<td>0.1610</td>
</tr>
</tbody>
</table>

* Actual size plus thickness of one joint
** 10% added for waste

---

### TABLE 3
**NON-MODULAR SOLID BRICK WALLS**

<table>
<thead>
<tr>
<th>WALL AREA SQ. FT.</th>
<th>4-IN. WALL</th>
<th>8-IN. WALL</th>
<th>12-IN. WALL</th>
<th>16-IN. WALL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. BRICK</td>
<td>MORTAR</td>
<td>No. BRICK</td>
<td>MORTAR</td>
</tr>
<tr>
<td>1</td>
<td>616</td>
<td>0.0721</td>
<td>12.32</td>
<td>0.129</td>
</tr>
<tr>
<td>10</td>
<td>62</td>
<td>0.0721</td>
<td>124</td>
<td>1.36</td>
</tr>
<tr>
<td>20</td>
<td>124</td>
<td>1.5</td>
<td>247</td>
<td>1.72</td>
</tr>
<tr>
<td>30</td>
<td>183</td>
<td>2.2</td>
<td>370</td>
<td>2.17</td>
</tr>
<tr>
<td>40</td>
<td>247</td>
<td>2.9</td>
<td>493</td>
<td>3.72</td>
</tr>
<tr>
<td>50</td>
<td>308</td>
<td>3.6</td>
<td>616</td>
<td>4.36</td>
</tr>
<tr>
<td>60</td>
<td>370</td>
<td>4.4</td>
<td>740</td>
<td>5.2</td>
</tr>
<tr>
<td>70</td>
<td>432</td>
<td>5.1</td>
<td>863</td>
<td>6.1</td>
</tr>
<tr>
<td>80</td>
<td>493</td>
<td>5.9</td>
<td>986</td>
<td>7.1</td>
</tr>
<tr>
<td>90</td>
<td>555</td>
<td>6.5</td>
<td>1109</td>
<td>8.1</td>
</tr>
<tr>
<td>100</td>
<td>616</td>
<td>7.25</td>
<td>1322</td>
<td>9.1</td>
</tr>
<tr>
<td>200</td>
<td>1232</td>
<td>14.5</td>
<td>2464</td>
<td>17.2</td>
</tr>
<tr>
<td>300</td>
<td>1648</td>
<td>21.7</td>
<td>3696</td>
<td>24.1</td>
</tr>
<tr>
<td>400</td>
<td>2464</td>
<td>29</td>
<td>4928</td>
<td>32.3</td>
</tr>
<tr>
<td>500</td>
<td>3080</td>
<td>36</td>
<td>6160</td>
<td>40.2</td>
</tr>
<tr>
<td>1000</td>
<td>6160</td>
<td>72.1</td>
<td>12220</td>
<td>81.5</td>
</tr>
</tbody>
</table>

NOTE: 1/2" 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</td>
<td>0.0%</td>
</tr>
<tr>
<td>English bond</td>
<td>0.0%</td>
</tr>
<tr>
<td>Flemish bond</td>
<td>0.0%</td>
</tr>
<tr>
<td>Double header</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

---

**MODULAR BRICK**

In Table 1 are the 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:

0.31 cu. ft. for 1 sq. ft. mortar joint 3/8-in. thick.
0.365 cu. ft. for 1 sq. ft. mortar joint 7/16-in. thick.
0.3417 cu. ft. for 1 sq. ft. mortar joint 1/2-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 2-1/2 x 4 x 8-in. size brick is commonly referred to as the "Standard Modular" size.
**Section A Structural Materials**

**CONTEMPORARY FIREPLACE DESIGN**

<table>
<thead>
<tr>
<th>Width of Opening</th>
<th>Height of Opening</th>
<th>Damper Height</th>
<th>Smoke Chamber</th>
<th>Flue Size</th>
<th>Length of Angles</th>
<th>Length of Tee</th>
<th>Length of Damper</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>24</td>
<td>35</td>
<td>19</td>
<td>12 x 16</td>
<td>36</td>
<td>35</td>
<td>28</td>
</tr>
<tr>
<td>32</td>
<td>29</td>
<td>35</td>
<td>21</td>
<td>16 x 16</td>
<td>40</td>
<td>39</td>
<td>32</td>
</tr>
<tr>
<td>36</td>
<td>29</td>
<td>35</td>
<td>21</td>
<td>16 x 20</td>
<td>42</td>
<td>43</td>
<td>36</td>
</tr>
<tr>
<td>40</td>
<td>29</td>
<td>35</td>
<td>27</td>
<td>16 x 20</td>
<td>48</td>
<td>47</td>
<td>40</td>
</tr>
<tr>
<td>48</td>
<td>32</td>
<td>37</td>
<td>32</td>
<td>20 x 20</td>
<td>54*</td>
<td>55</td>
<td>48</td>
</tr>
</tbody>
</table>

*Angles should be 3½ x 3½; all others 3 x 3.

Notes: The damper and the steel T should not be built in solid at the ends but given freedom to expand with heat.

---

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Width</th>
<th>Flue Size</th>
<th>Size of Damper</th>
<th>Length of Angle</th>
<th>Plate Lintel</th>
<th>Corner Post Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
<tr>
<td>28</td>
<td>26½</td>
<td>16</td>
<td>14</td>
<td>20</td>
<td>29½</td>
</tr>
<tr>
<td>32</td>
<td>26½</td>
<td>16</td>
<td>14</td>
<td>20</td>
<td>32</td>
</tr>
<tr>
<td>36</td>
<td>26½</td>
<td>16</td>
<td>14</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>40</td>
<td>29</td>
<td>16</td>
<td>14</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>48</td>
<td>29</td>
<td>20</td>
<td>14</td>
<td>24</td>
<td>43</td>
</tr>
</tbody>
</table>

*Angles should be 3½ x 3½; all others 3 x 3.

Notes: The back flange of the damper must be protected from intense heat by being fully supported by the masonry. At the same time, the damper should not be built in solidly at the ends but given freedom to expand with heat.
### Rectangular Clay Flue Lining Dimensions

<table>
<thead>
<tr>
<th>Outside Width of Short Side (inches)</th>
<th>Outside Width of Long Side (inches)</th>
<th>Length (feet)</th>
<th>Wall Thickness (inches)</th>
<th>Approximate Minimum Shipping Weight (lbs. per foot)</th>
<th>Diameter of Stove Opening (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-1/2&quot;</td>
<td>6-1/2&quot;</td>
<td>2</td>
<td>5/8</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>4-1/2&quot;</td>
<td>13&quot;</td>
<td>2</td>
<td>3/4</td>
<td>18</td>
<td>6-7-8</td>
</tr>
<tr>
<td>8-1/2&quot;</td>
<td>6-1/2&quot;</td>
<td>2</td>
<td>3/4</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>8-1/2&quot;</td>
<td>13&quot;</td>
<td>2</td>
<td>7/8</td>
<td>27</td>
<td>6-7-8</td>
</tr>
<tr>
<td>8-1/2&quot;</td>
<td>17-3/4&quot;</td>
<td>2</td>
<td>1&quot;</td>
<td>36</td>
<td>6-7-8</td>
</tr>
<tr>
<td>13&quot;</td>
<td>13&quot;</td>
<td>2</td>
<td>7/8</td>
<td>35</td>
<td>6-7-8</td>
</tr>
<tr>
<td>13&quot;</td>
<td>17-3/4&quot;</td>
<td>2</td>
<td>1&quot;</td>
<td>45</td>
<td>6-7-8</td>
</tr>
<tr>
<td>17-3/4&quot;</td>
<td>17-3/4&quot;</td>
<td>2</td>
<td>1-1/4</td>
<td>70</td>
<td>6-7-8</td>
</tr>
<tr>
<td>20&quot;</td>
<td>20&quot;</td>
<td>2</td>
<td>1-3/8</td>
<td>103</td>
<td>6-7-8</td>
</tr>
<tr>
<td>20&quot;</td>
<td>24&quot;</td>
<td>2</td>
<td>1-1/2</td>
<td>115</td>
<td>6-7-8</td>
</tr>
<tr>
<td>24&quot;</td>
<td>24&quot;</td>
<td>2</td>
<td>1-5/8</td>
<td>129</td>
<td>6-7-8</td>
</tr>
</tbody>
</table>

### ROUND CLAY FLUE LINING

<table>
<thead>
<tr>
<th>Inside Diameter (inches)</th>
<th>Length (feet)</th>
<th>Approximate Minimum Weight (lbs. per foot)</th>
<th>Thickness (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot;</td>
<td>2</td>
<td>11</td>
<td>5/8</td>
</tr>
<tr>
<td>8&quot;</td>
<td>2</td>
<td>17</td>
<td>3/4</td>
</tr>
<tr>
<td>10&quot;</td>
<td>2</td>
<td>27</td>
<td>7/8</td>
</tr>
<tr>
<td>12&quot;</td>
<td>2</td>
<td>37</td>
<td>1</td>
</tr>
<tr>
<td>15&quot;</td>
<td>2</td>
<td>52</td>
<td>1-1/8</td>
</tr>
<tr>
<td>18&quot;</td>
<td>2</td>
<td>67</td>
<td>1-1/4</td>
</tr>
<tr>
<td>21&quot;</td>
<td>2</td>
<td>90</td>
<td>1-5/8</td>
</tr>
<tr>
<td>24&quot;</td>
<td>2</td>
<td>120</td>
<td>1-3/4</td>
</tr>
<tr>
<td>27&quot;</td>
<td>2</td>
<td>186</td>
<td>2</td>
</tr>
<tr>
<td>30&quot;</td>
<td>2</td>
<td>218</td>
<td>2-1/8</td>
</tr>
<tr>
<td>36&quot;</td>
<td>2</td>
<td>330</td>
<td>2-1/2</td>
</tr>
</tbody>
</table>

### Round Clay Flue Linings

- **Minimum Net Inside Area (Sq. In.)**
- **Nominal Dimensions (Inches)**
- **Outside Dimensions (Inches)**
- **Length (Inches)**
- **Minimum Wall Thickness (Inches)**
- **Approx. Maximum Outside Corner Radius (Inches)**

<table>
<thead>
<tr>
<th>Minimum Net Inside Area</th>
<th><em>Nominal Dimensions (Inches)</em></th>
<th>Outside Dimensions (Inches)</th>
<th>Length (Inches)</th>
<th>Minimum Wall Thickness (Inches)</th>
<th>Approx. Maximum Outside Corner Radius (Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>4x8</td>
<td>3.5x7.5</td>
<td>24±0.5</td>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>4x12</td>
<td>3.5x11.5</td>
<td>24±0.5</td>
<td>0.625</td>
<td>1</td>
</tr>
<tr>
<td>27</td>
<td>4x16</td>
<td>3.5x15.5</td>
<td>24±0.5</td>
<td>0.75</td>
<td>1</td>
</tr>
<tr>
<td>35</td>
<td>8x8</td>
<td>7.5x7.5</td>
<td>24±0.5</td>
<td>0.625</td>
<td>2</td>
</tr>
<tr>
<td>37</td>
<td>8x12</td>
<td>7.5x11.5</td>
<td>24±0.5</td>
<td>0.75</td>
<td>2</td>
</tr>
<tr>
<td>74</td>
<td>8x16</td>
<td>7.5x15.5</td>
<td>24±0.5</td>
<td>0.875</td>
<td>2</td>
</tr>
<tr>
<td>87</td>
<td>12x12</td>
<td>11.5x11.5</td>
<td>24±0.5</td>
<td>0.875</td>
<td>3</td>
</tr>
<tr>
<td>120</td>
<td>12x16</td>
<td>11.5x15.5</td>
<td>24±0.5</td>
<td>1.</td>
<td>3</td>
</tr>
<tr>
<td>162</td>
<td>16x16</td>
<td>15.5x15.5</td>
<td>24±0.5</td>
<td>1.125</td>
<td>4</td>
</tr>
<tr>
<td>262</td>
<td>20x20</td>
<td>19.5x19.5</td>
<td>24±0.5</td>
<td>1.375</td>
<td>5</td>
</tr>
<tr>
<td>320</td>
<td>20x24</td>
<td>19.5x23.5</td>
<td>24±0.5</td>
<td>1.3</td>
<td>5</td>
</tr>
<tr>
<td>385</td>
<td>24x24</td>
<td>23.5x23.5</td>
<td>24±0.5</td>
<td>1.625</td>
<td>6</td>
</tr>
</tbody>
</table>

*Cross section of flue lining shall fit within rectangle of dimension corresponding to nominal size.

### Flue Rings

- **Minimum Net Inside Area (Sq. In.)**
- **Nominal Dimensions (Inches)**
- **Outside Dimensions (Inches)**
- **Length (Inches)**

<table>
<thead>
<tr>
<th>Inside Dia.* (Inches)</th>
<th>THICKNESS (Inches)</th>
<th>Length (Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>5/8</td>
<td>1/2</td>
</tr>
<tr>
<td>7</td>
<td>11/16</td>
<td>9/16</td>
</tr>
<tr>
<td>8</td>
<td>3/4</td>
<td>9/16</td>
</tr>
<tr>
<td>10</td>
<td>7/8</td>
<td>7/8</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

*Flue Rings are made slightly oversize to receive metal stove pipe.
### Section A Structural Materials

#### STEEL BEAM & COLUMN DESIGN

Fiber Stress—18,000#

<table>
<thead>
<tr>
<th>BEAM SIZE</th>
<th>WEIGHT</th>
<th>SPAN IN FEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; 10.5</td>
<td>9.5</td>
<td>6.3</td>
</tr>
<tr>
<td>5&quot; 10.0</td>
<td>10.7</td>
<td>7.1</td>
</tr>
<tr>
<td>5&quot; 12.25</td>
<td>14.5</td>
<td>9.3</td>
</tr>
<tr>
<td>5&quot; 14.75</td>
<td>18.0</td>
<td>12.0</td>
</tr>
<tr>
<td>6&quot; 12.5</td>
<td>21.8</td>
<td>14.5</td>
</tr>
<tr>
<td>6&quot; 14.75</td>
<td>23.8</td>
<td>15.9</td>
</tr>
<tr>
<td>6&quot; 17.25</td>
<td>26.0</td>
<td>17.3</td>
</tr>
<tr>
<td>7&quot; 15.3</td>
<td>31.0</td>
<td>24.8</td>
</tr>
<tr>
<td>7&quot; 17.5</td>
<td>33.4</td>
<td>22.2</td>
</tr>
<tr>
<td>7&quot; 20.5</td>
<td>36.0</td>
<td>28.7</td>
</tr>
<tr>
<td>8&quot; 18.4</td>
<td>43.7</td>
<td>28.5</td>
</tr>
<tr>
<td>8&quot; 20.5</td>
<td>45.2</td>
<td>30.1</td>
</tr>
<tr>
<td>8&quot; 25.5</td>
<td>51.1</td>
<td>34.9</td>
</tr>
<tr>
<td>9&quot; 21.8</td>
<td>56.6</td>
<td>37.7</td>
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<tr>
<td>9&quot; 25.0</td>
<td>60.8</td>
<td>40.6</td>
</tr>
<tr>
<td>9&quot; 30.0</td>
<td>67.6</td>
<td>45.1</td>
</tr>
<tr>
<td>9&quot; 35.0</td>
<td>74.2</td>
<td>49.5</td>
</tr>
<tr>
<td>10&quot; 30.0</td>
<td>80.1</td>
<td>53.4</td>
</tr>
<tr>
<td>10&quot; 40.0</td>
<td>94.8</td>
<td>63.2</td>
</tr>
</tbody>
</table>

* The loads are given in kips, a kip being 1,000 lbs.

#### SAFE LOADS FOR STEEL PIPE COLUMNS IN KIPS*

<table>
<thead>
<tr>
<th>NOMINAL SIZE</th>
<th>ACTUAL DIAMETER</th>
<th>WEIGHT Lbs. per Ft.</th>
<th>LENGTH IN FEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot; 2-3/8</td>
<td>3.65</td>
<td>12.2</td>
<td>5 6 7 8 9 10 11 12 13 14</td>
</tr>
<tr>
<td>2½ 2-3/4</td>
<td>3.79</td>
<td>13.6</td>
<td></td>
</tr>
<tr>
<td>3&quot; 3-1/2</td>
<td>5.78</td>
<td>29.0</td>
<td></td>
</tr>
<tr>
<td>3½ 4</td>
<td>9.11</td>
<td>34.8</td>
<td></td>
</tr>
<tr>
<td>4&quot; 4-1/2</td>
<td>10.79</td>
<td>41.2</td>
<td></td>
</tr>
<tr>
<td>4½ 5</td>
<td>12.54</td>
<td>48.0</td>
<td></td>
</tr>
<tr>
<td>5&quot; 5-9/16</td>
<td>14.62</td>
<td>55.9</td>
<td></td>
</tr>
<tr>
<td>6&quot; 6-5/8</td>
<td>18.97</td>
<td>72.5</td>
<td></td>
</tr>
</tbody>
</table>

* The loads are given in kips, a kip being 1,000 lbs.

#### SAFE LOADS FOR I BEAM COLUMNS IN KIPS*

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>AREA SQ. IN.</th>
<th>LBS. per sq. ft.</th>
<th>LENGTH IN FEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1.64</td>
<td>5.7</td>
<td>2 3 4 5 6 7 8 9 10 11 12 13 14</td>
</tr>
<tr>
<td>4</td>
<td>2.21</td>
<td>7.7</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2.87</td>
<td>10.0</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>3.61</td>
<td>12.5</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>4.43</td>
<td>15.3</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>5.34</td>
<td>18.4</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>6.32</td>
<td>21.8</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>7.38</td>
<td>25.4</td>
<td></td>
</tr>
</tbody>
</table>

* The loads are given in kips, a kip being 1,000 lbs.
Section A Structural Materials

CLAY COPING STANDARDS

STRAIGHT SECTIONS

<table>
<thead>
<tr>
<th>A inches</th>
<th>B inches</th>
<th>E inches</th>
<th>F inches</th>
<th>G inches</th>
<th>H inches</th>
<th>T inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>24</td>
<td>1 ½</td>
<td>¼</td>
<td>10 ¾</td>
<td>3 ½</td>
<td>¾</td>
</tr>
<tr>
<td>13</td>
<td>24</td>
<td>2 ¾</td>
<td>1½</td>
<td>15 ¼</td>
<td>4</td>
<td>½</td>
</tr>
<tr>
<td>18</td>
<td>24</td>
<td>2 ½</td>
<td>1¼</td>
<td>21</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

ENDS

<table>
<thead>
<tr>
<th>A inches</th>
<th>B inches</th>
<th>C inches</th>
<th>D inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>24</td>
<td>12</td>
<td>7 ¾</td>
</tr>
<tr>
<td>13</td>
<td>24</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>18</td>
<td>24</td>
<td>12</td>
<td>13</td>
</tr>
</tbody>
</table>

STARTERS

<table>
<thead>
<tr>
<th>A inches</th>
<th>B inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>24</td>
</tr>
<tr>
<td>13</td>
<td>24</td>
</tr>
<tr>
<td>18</td>
<td>24</td>
</tr>
</tbody>
</table>

"T" SECTIONS

<table>
<thead>
<tr>
<th>A inches</th>
<th>B inches</th>
</tr>
</thead>
<tbody>
<tr>
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<td>24</td>
</tr>
<tr>
<td>13</td>
<td>24</td>
</tr>
<tr>
<td>18</td>
<td>24</td>
</tr>
</tbody>
</table>

NOTE—Dimensions C and D are approximate.

CORNERS

90 DEGREES

When looking at a right hand wall coping corner from the outside of the wall the socket is on your right, and vice versa

<table>
<thead>
<tr>
<th>A inches</th>
<th>B inches</th>
<th>C inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>7 ¼</td>
<td>8 ¾</td>
</tr>
<tr>
<td>13</td>
<td>10</td>
<td>11 ½</td>
</tr>
<tr>
<td>18</td>
<td>13</td>
<td>15</td>
</tr>
</tbody>
</table>

120 DEGREES

When looking at a left hand wall coping corner from the outside of the wall the socket is on your left, and vice versa

<table>
<thead>
<tr>
<th>A inches</th>
<th>B inches</th>
<th>C inches</th>
<th>D inches</th>
<th>E inches</th>
<th>F inches</th>
<th>G inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>12</td>
<td>12</td>
<td>5 ¾</td>
<td>5 ¾</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>13</td>
<td>12</td>
<td>12</td>
<td>3 ¾</td>
<td>3 ¾</td>
<td>7 ¼</td>
<td>7 ¼</td>
</tr>
<tr>
<td>18</td>
<td>12</td>
<td>12</td>
<td>¾</td>
<td>¾</td>
<td>6 ½</td>
<td>6 ½</td>
</tr>
</tbody>
</table>

NOTE—Dimensions are approximate.
### LUMBER CALCULATOR — BOARD FEET

#### SIZE OF TIMBER

<table>
<thead>
<tr>
<th>Size of Timber</th>
<th>8'</th>
<th>10'</th>
<th>12'</th>
<th>14'</th>
<th>16'</th>
<th>18'</th>
<th>20'</th>
<th>22'</th>
<th>24'</th>
<th>26'</th>
<th>28'</th>
<th>30'</th>
<th>32'</th>
<th>34'</th>
<th>36'</th>
<th>38'</th>
<th>40'</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 x 4</td>
<td>10%</td>
<td>13%</td>
<td>16%</td>
<td>19%</td>
<td>22%</td>
<td>25%</td>
<td>28%</td>
<td>31%</td>
<td>34%</td>
<td>37%</td>
<td>40%</td>
<td>43%</td>
<td>46%</td>
<td>49%</td>
<td>52%</td>
<td>55%</td>
<td>58%</td>
</tr>
<tr>
<td>4 x 6</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>16</td>
<td>18</td>
<td>20</td>
<td>22</td>
<td>24</td>
<td>26</td>
<td>28</td>
<td>30</td>
<td>32</td>
<td>34</td>
<td>36</td>
<td>38</td>
<td>40</td>
</tr>
<tr>
<td>4 x 8</td>
<td>18%</td>
<td>21%</td>
<td>24%</td>
<td>27%</td>
<td>30%</td>
<td>33%</td>
<td>36%</td>
<td>39%</td>
<td>42%</td>
<td>45%</td>
<td>48%</td>
<td>51%</td>
<td>54%</td>
<td>57%</td>
<td>60%</td>
<td>63%</td>
<td>66%</td>
</tr>
<tr>
<td>2 x 4</td>
<td>10%</td>
<td>13%</td>
<td>16%</td>
<td>19%</td>
<td>22%</td>
<td>25%</td>
<td>28%</td>
<td>31%</td>
<td>34%</td>
<td>37%</td>
<td>40%</td>
<td>43%</td>
<td>46%</td>
<td>49%</td>
<td>52%</td>
<td>55%</td>
<td>58%</td>
</tr>
<tr>
<td>2 x 6</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>16</td>
<td>18</td>
<td>20</td>
<td>22</td>
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<td>30</td>
<td>32</td>
<td>34</td>
<td>36</td>
<td>38</td>
<td>40</td>
</tr>
</tbody>
</table>

#### SIZE OF TIMBER

<table>
<thead>
<tr>
<th>Size of Timber</th>
<th>8'</th>
<th>10'</th>
<th>12'</th>
<th>14'</th>
<th>16'</th>
<th>18'</th>
<th>20'</th>
<th>22'</th>
<th>24'</th>
<th>26'</th>
<th>28'</th>
<th>30'</th>
<th>32'</th>
<th>34'</th>
<th>36'</th>
<th>38'</th>
<th>40'</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 x 2</td>
<td>1/4</td>
<td>1/2</td>
<td>3/4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1 x 3</td>
<td>2/4</td>
<td>3/4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1 x 4</td>
<td>3/4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td>1</td>
<td>1</td>
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<td>1</td>
<td>1</td>
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</tr>
</tbody>
</table>

### AMERICAN BUILDER
### ALLOWABLE SPANS FOR JOISTS AND RAFTERS

#### DOUGLAS FIR

<table>
<thead>
<tr>
<th>Nominal Size (inches)</th>
<th>Spacing c. to c.</th>
<th>1900-F Select Structural Framing, etc.</th>
<th>No. 1 Framing, Joists, Plank</th>
<th>No. 2 Framing, Joists, Plank</th>
<th>No. 3 Framing, Joists, Plank</th>
</tr>
</thead>
</table>

#### SOUTHERN PINE

<table>
<thead>
<tr>
<th>Nominal Size (inches)</th>
<th>Spacing c. to c.</th>
<th>1900-F Select Structural Framing, etc.</th>
<th>No. 1 Framing, Joists, Plank</th>
<th>No. 2 Framing, Joists, Plank</th>
<th>No. 3 Framing, Joists, Plank</th>
</tr>
</thead>
</table>

### ALLOWABLE SPANS FOR YELLOW PINE AND DOUGLAS FIR RAFTERS

(Roof slopes greater than 3 in 12. Span is the actual length of the rafter between the plate and the ridge or an intermediate support)

<table>
<thead>
<tr>
<th>Nominal Size (inches)</th>
<th>Spacing c. to c.</th>
<th>1600-F Select Structural Framing, etc.</th>
<th>No. 1 Framing, Joists, Plank, etc.</th>
<th>No. 2 Framing, Joists, Plank, etc.</th>
<th>No. 3 Framing, Joists, Plank, etc.</th>
</tr>
</thead>
</table>
Section A  Structural Materials

TRUSSED RAFTER DESIGN

ANCHORAGE DETAIL

HEEL JOINT FOR 22,248 26 SPANS

BOLTS FOR ALL SPANS WITH DRY WALL CEILING

SPLIT RINGS FOR SPANS UP TO 26' WITH PLASTER CEILING

SPLIT RINGS FOR SPANS OVER 26' WITH PLASTER CEILING

DIMENSIONS

<table>
<thead>
<tr>
<th>PITCH</th>
<th>Length of Span</th>
<th>DIMENSIONS</th>
<th>LUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>No.</td>
<td>Length</td>
</tr>
<tr>
<td>20</td>
<td>5° 31/4&quot; 4° 8 15/16&quot; 3° 31/4&quot; 6° 8 1/2&quot;</td>
<td>4</td>
<td>10 3/4&quot;</td>
</tr>
<tr>
<td>22</td>
<td>5° 9 1/4&quot; 5° 13/16&quot; 2° 6 1/2&quot; 7° 4 3/4&quot;</td>
<td>4</td>
<td>14 3/4&quot;</td>
</tr>
<tr>
<td>24</td>
<td>6° 3 3/4&quot; 5° 7 1/2&quot; 2° 9 3/4&quot; 8° 0 3/4&quot;</td>
<td>4</td>
<td>14 3/4&quot;</td>
</tr>
<tr>
<td>26</td>
<td>6° 10 3/4&quot; 6° 1 1/2&quot; 3° 0 3/4&quot; 8° 8 3/4&quot;</td>
<td>4</td>
<td>16 3/4&quot;</td>
</tr>
<tr>
<td>28</td>
<td>7° 4 1/2&quot; 6° 4 1/2&quot; 3° 9 3/4&quot; 9° 4 3/4&quot;</td>
<td>2</td>
<td>18 3/4&quot;</td>
</tr>
<tr>
<td>30</td>
<td>7° 10 1/2&quot; 7° 1 3/4&quot; 3° 6 3/4&quot; 10° 0 3/4&quot;</td>
<td>2</td>
<td>18 3/4&quot;</td>
</tr>
<tr>
<td>32</td>
<td>8° 5 1/2&quot; 7° 6 1/2&quot; 3° 8 3/4&quot; 10° 8 3/4&quot;</td>
<td>2</td>
<td>18 3/4&quot;</td>
</tr>
</tbody>
</table>

DIMENSIONS

<table>
<thead>
<tr>
<th>Length</th>
<th>lumber</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>2° x 6&quot;</td>
<td>2&quot; x 4&quot;</td>
</tr>
<tr>
<td>20</td>
<td>5° 31/4&quot;</td>
</tr>
<tr>
<td>22</td>
<td>5° 9 1/4&quot;</td>
</tr>
<tr>
<td>24</td>
<td>6° 3 3/4&quot;</td>
</tr>
<tr>
<td>26</td>
<td>6° 10 3/4&quot;</td>
</tr>
<tr>
<td>28</td>
<td>7° 4 1/2&quot;</td>
</tr>
<tr>
<td>30</td>
<td>7° 10 1/2&quot;</td>
</tr>
<tr>
<td>32</td>
<td>8° 5 1/2&quot;</td>
</tr>
</tbody>
</table>

AMERICAN BUILDER
Section A Structural Materials

STANDARD WOOD SIDING PATTERNS

Courtesy Western Pine Association
The Component Panel Techniques detailed on these pages have been developed by the Small Homes Council, University of Illinois, Urbana, Illinois, as part of a research project sponsored by the Lumber Dealers Research Council. These are part of the Lu-Re-Co system which is licensed only to retail lumber dealers. More information may be obtained from the National Retail Lumber Dealers Association, Ring Building, Washington 6, D. C.

Floor panels are made 4' wide and in full span lengths. Various types of joist spacing may be used as shown in the two illustrations here. Plywood is used for sub-flooring and is applied with the grain running at right angles to gain full advantage of its strength.

A continuous header, constructed according to this detail, runs all around the building and serves to tie the outside wall panels together. This header is placed after the outside wall panels are in place.

A jig table is the basis for the building of all component panels. Made of plywood, reinforced with 2 x 4's, and set table high, it allows for assembling the panels with the minimum amount of labor. Steel angles form the guides for the placing of the framing materials. An extension is added to the table for the assembling of panels longer than the basic 8 feet.
Window panels have a basic width of 4' using any type of window that is coordinated in dimension to drop directly inside the basic 2 x 4 frame. It is set directly under the top header to eliminate the need for short cripples.

Door panels may use either a 2'-8" or a 3'-0" door but in any case an additional stud is required. The door opening may be located in the center or to the left or right of the panel.

Basic partition panels have dry-wall materials applied to one side only to allow for installation of wiring on the job.

Partitions containing interior doors are framed in sections. This illustration shows the use of three panels combined and tied together with the side jamb of the door opening.

As all basic partition panels are made 4' wide, to facilitate moving into the building through a door, long partitions may be built up by combining panels in vertical and horizontal positions. Dry-wall materials will work either way.
### Section A Structural Materials

#### RED CEDAR SHINGLES

<table>
<thead>
<tr>
<th>Exposure Inches</th>
<th>16&quot; Shingles</th>
<th>18&quot; Shingles</th>
<th>24&quot; Shingles</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4</td>
<td>34</td>
<td>33</td>
<td>32</td>
</tr>
<tr>
<td>4</td>
<td>40</td>
<td>40</td>
<td>39</td>
</tr>
<tr>
<td>4 1/2</td>
<td>42</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>5</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>5 1/2</td>
<td>53</td>
<td>53</td>
<td>53</td>
</tr>
<tr>
<td>6</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>6 1/2</td>
<td>62</td>
<td>62</td>
<td>62</td>
</tr>
<tr>
<td>7</td>
<td>70</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>7 1/2</td>
<td>73</td>
<td>73</td>
<td>73</td>
</tr>
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<tr>
<td>10 1/2</td>
<td>104</td>
<td>104</td>
<td>104</td>
</tr>
</tbody>
</table>

#### Recommended Exposure of Roof Shingles

<table>
<thead>
<tr>
<th>Pitch of Roof</th>
<th>Exposure of Shingles in Inches</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16</td>
</tr>
<tr>
<td>1/4</td>
<td>3/4</td>
</tr>
<tr>
<td>1/2</td>
<td>6/12</td>
</tr>
<tr>
<td>5/8</td>
<td>12/12</td>
</tr>
<tr>
<td>3/4</td>
<td>18/12</td>
</tr>
</tbody>
</table>

#### DOUBLE-COURSED RED CEDAR SHINGLE ROOF

- Either spaced or solid wood sheathing
- Two 4d nails in each shingle, nailed 1/2" from edges and 1/2" to 2" above butt line of next course.
- Weather exposure: 5" for 16", 6" for 18" shingles.
- Two layers of shingles per course

#### STANDARD RED CEDAR SHINGLE ROOF

- On roofs flatter than half pitch, valley sheets should extend at least 10" from valley center.
- On half pitch and steeper roofs valley sheets should extend at least 7" from valley center.
- Choose shingles of 2" to 5" uniform width.
- Hip courses alternately trimmed and beveled.
- Double starter course
- Space shingles at least 1/2" apart.
- Two nails for each shingle applied not more than 1/2" from edges and 1" to 3" above butt line of next course.
- On quarter pitch and steeper roofs use standard exposures of 5", 5 1/4", and 5 1/2" for 16", 18", and 24" shingles respectively. On flatter pitches reduce exposures to 3 1/2", 4 1/2", and 5 1/2", respectively.
- Break adjacent course joints at least 1 1/2".
- Alternate course joints should not be in alignment.
- First course doubled or tripled

#### Gable mould
- Either spaced or solid wood sheathing

#### Wood gutter

#### Bed mould

#### Wall sheathing

### NOTE

This is a "deluxe" roof which provides deep course lines and superior six-ply protection.
Facts about the Van-Packer Chimney

Saves you money — Factory-built Van-Packer Chimney saves you 20 to 40% per unit over brick construction.

Saves you time—Van-Packer Chimney goes up in 3 man hours. No delays, immediate delivery to job site when needed.

Saves you space—Ceiling on floor suspended Van-Packer Chimney eliminates pier, lets you locate furnace anywhere.

Attractive brick-design panel housing provides massive masonry appearance—available in red, buff or white to harmonize with any home. Asbestos-cement housing won’t dent, rust or streak roof.

Safe, permanent masonry sections have insulating value of 2 ft. of solid brick. Acid-proof fire clay tile liner withstands over 2100° F.—fire protection is built-in.

Van-Packer All-Fuel Chimney

Listed by Underwriters’ Laboratories for all fuels, all home heating plants and incinerators; approved by major building codes. 7” I.D. flue sections in 1’ and 2’ lengths combine for any height. 14” O.D. sections fit between joints 16” O.C. without joint cutting. Section joints sealed with acid-proof cement and reinforced with aluminum drawbands. Enclosed above roof by attractive brick-design panel housing; no bare vent pipe to mar appearance of home. All parts provided including flashing.

Van-Packer Gas Vent

Provides safety, permanence and beauty of brick. Flue sections are 5/8” fire clay tile with asbestos-cement jacket. Section joints sealed with acid-proof, leak-proof cement and aluminum drawbands. Enclosed above roof by attractive brick-design panel housing; no bare vent pipe to mar appearance of home. All parts provided including flashing. For use with all gas-fired appliances (except incinerators) requiring 3” to 7” I.D. flues. Listed by Underwriters’ Laboratories for Class B service.

To order a Van-Packer All-Fuel Chimney or Gas Vent, or for prices, give your Van-Packer Jobber “H and L” measurements as indicated above. See “Chimneys—Prefabricated” in Yellow Pages for your nearest jobber, or write Van-Packer.
ask your dealer for

KEYCORNER

Pre-formed to fit snug in corners
Gives multi-directional reinforcement
Quick and easy to lath
Lays tight against flat surfaces
Trowels over smoothly and easily
Provides a minimum of waste material
Galvanized to prevent rust streaks
Comes in easy to handle, easy to store 150 ft. rolls.

Easy to handle ... Easy to store 150-foot rolls, 4", 5"
6", 12" and other widths. Ask your dealer for details.
PRE-FORMED FOR CORNERS Keycorner is pre-formed; manufactured to fit snugly into corners. It forms the corner shape by merely flexing the cut piece. Inside plastered wall corners and ceiling-wall junc-tures remain crack-resistant when reinforced with Keycorner.

LIES FLAT FOR STRIPPING Keycorner comes out of the roll flat and stays flat when applied on flat surfaces. It won’t form the corner shape until you flex it. Keycorner used as stripping around win-dows, doors and other large openings provides lasting plaster beauty.

by the makers of KEYMESH and KEYBEAD GALVANIZED PLASTER-REINFORCING

KEYSTONE STEEL & WIRE COMPANY

Peoria 7, Illinois

KEYMESH * KEYCORNER * KEYBEAD * KEYSTONE NAILS * KEYSTONE WELDED WIRE FABRIC
KEYSTONE TIE WIRE * KEYSTONE NON-CLIMBABLE FENCE * KEYSTONE ORNAMENTAL FENCE
INCINERATORS
FOR THE "HOTTEST" MARKET
DEALERS HAVE TODAY

for apartments • schools • stores • hospitals • institutions • factories • industrial plants

Dealers everywhere are profiting from the increased sale of incinerators!
The Donley line includes standard models of flue and floor-fed (charge through fire door) design as well as units for use in small and medium size plants, gardens or estates. Prefabricated steel-shell units also are available.
All Donley Incinerators feature greater waste disposing capacity through the utilization of an automatic burning principle.

With Donley plans and parts, local contractors can build complete incinerators . . . profit from this growing market!

Write today for full information about Donley incinerators.

OTHER DONLEY PRODUCTS TO SELL

"SUPERMARKET-SHOPPING" at Donley saves you money.

13910 Miles Avenue, Cleveland 5, Ohio
West Coast Hemlock is enjoying an increasing popularity among builders. They find that it is light and strong, easy to work, straight-grained, and relatively free from pitch pockets... an ideal species for light frame construction.

As finish lumber, West Coast Hemlock is a beautiful, light-colored wood. This feature, plus its remarkably straight grain, makes Hemlock an excellent species for both paneling and molding.

Builders know, too, that the well known Weyerhaeuser 4-Square trademark means that this lumber has been carefully and scientifically seasoned. Kiln-drying assures greater stability, long life, and excellent finishing characteristics. Whether it is framing, siding, sheathing, flooring, or paneling, the 4-Square brand name means that this lumber has been manufactured with precision, accurately graded, and carefully handled and shipped.

The structural advantages, beauty, and versatility of Weyerhaeuser 4-Square West Coast Hemlock Lumber explain its growing popularity among builders and architects. See this beautiful "Ability Wood" at the yard of your Weyerhaeuser 4-Square Lumber Dealer.

Weyerhaeuser Sales Company
ST. PAUL 1, MINNESOTA

WEYERHAEUSER
4-SQUARE
The utmost in comfort and convenience is offered shoppers at the striking Westroads Shopping Center in suburban St. Louis. Dominated by the massive Westroads branch of Stix, Baer & Fuller Department Store, the center includes seven additional retail outlets: food, variety, drug, women's and children's specialty, ladies' ready-to-wear, shoe and jewelry stores.

Laclede construction steels of virtually every type were used throughout this modern development: straight chord steel joists, Multi-Rib reinforcing bars, welded wire fabric, spirals, pipe, form and tie wire, conduit and electrical metallic tubing.

For The Best In Construction Steels ... Specify Laclede

LACLEDE STEEL COMPANY
SAINT LOUIS, MISSOURI
Producers of Steel for Industry and Construction
Here are **EXTRAS all owners want...**

...and they help you cut costs...save time...sell faster!

### ZONOLITE INSULATING FILL
Three-Step-Method Cuts Insulating Costs

(1) Anyone can easily unload light-weight bags of Zonolite Insulation.
(2) Store them right on attic joists prior to plastering!
(3) And any laborer on the job can handle the pouring. Pour and level! An entire attic in 2 to 3 hours! You save work, time and labor costs!... And fireproof Zonolite is guaranteed in writing for the life of the building!

### ZONOLITE PLASTER AGGREGATE
Machine Application Breaks Home Building Bottleneck

Here's the easy, low cost way to get homes finished "for sale" faster. A man with a machine can really make that plaster fly. And Zonolite is always available! You KNOW it's easier to sell a home that's plastered throughout...for added beauty, greater fire safety and higher resale value! Zonolite Plaster Aggregate weighs 1/10 as much as sand; gives added insulating value. Just as valuable in non-residential building too!

### ZONOLITE CONCRETE AGGREGATE
For Warm Dry Floors

This low cost "extra" is a surefire selling point in a "basementless" home. Zonolite insulating concrete has 12 to 16 times the insulating value of ordinary concrete. And you'll appreciate the fact that it's light-weight, easy to mix. Greatly increases the efficiency of any heating system.

For Lightweight Roof Construction

In small or large buildings, Zonolite's "Big 4" advantages are (a) light-weight, at lower cost; (b) 100% fire-proof, cannot burn; (c) insulates permanently; (d) can be used in any roof design. Cut costs on your next job. Mail coupon for booklet showing all types of roof construction.

### ZONOLITE ACOUSTICAL PLASTIC
New Application Techniques Speed Construction, Cut Costs

Zonolite Acoustical Plastic in addition to absorbing sound, is completely fire-safe. Choice of architects and owners for texture, appearance. Zonolite adheres directly to clean, firm surface; even underside of concrete ceilings. Cost little more than conventional 3-coat plastering. Machine application permits widespread use of acoustical treatment at low cost.

---

Mail Coupon today for New FREE Book

Without obligation, you'll receive booklet fully illustrating the widespread use of modern Zonolite products...including full technical data, drawings, and specifications. Cut costs, deliver quality with ZONOLITE. Write today.

ZONOLITE COMPANY
135 S. LaSalle Street, Chicago 3, Ill.
how to keep 2000 homes dry for life!

This is Kendall Park at Franklin Park, New Jersey. Here 2000 slab-type homes are under construction—300 completed. All have VISQUEEN film under the slab to assure life-long freedom from moisture-generated ills. Herbert Kendall, and his chief superintendent heading the project, Ed Ludlow, cement contractor agree that there is no moisture barrier as effective as VISQUEEN, and at such low cost. "Delighted" is the consensus and they keep right on with VISQUEEN.
VISKING COMPANY
Division of Union Carbide and Carbon Corporation
PLASTICS DIVISION
World's largest producers of polyethylene sheeting and tubing
P.O. BOX 1410 TERRE HAUTE, INDIANA
IN CANADA: VISKING LIMITED, LINDSAY, ONTARIO

look for this name on the selvage

VisQueen®

information request tag
clip this tag—AB4-1410
attach to letterhead, mail.

APRIL 1957
Lauderdale Isles is a beautiful modern home project built by the Gill Construction Company near Ft. Lauderdale, Fla. All the homes are of concrete masonry construction with an exterior finish of portland cement stucco. They are built on 60-foot lots, most of which are on waterways that connect with a deep channel to the ocean. All waterfront lots are completely landscaped and have a concrete seawall. Along with each home goes a membership in the Lauderdale Isles Yacht Club, which features a large concrete swimming pool.

George W. Gill, Jr., manager of the Gill Construction Company, says: "Lauderdale Isles, the latest waterfront project of our company, is an excellent example of our highly successful use of concrete block and stucco home construction. During the nine years we have been in business in south Florida, we have built more than 2500 homes, all with exterior walls of concrete block and stucco. This type of construction has excellent customer acceptance, is very economical, and provides minimum upkeep expense."

Many of America's successful builders use concrete masonry construction. They enjoy a marked sales advantage because concrete masonry homes are comfortable, economical, and have unequalled resistance to moisture, decay, termites and fire. Send for free "Concrete Masonry Handbook." Distributed only in U.S. and Canada.
Give any interior this fresh new beauty

BEGIN WITH A BEAUTIFUL BACKGROUND
of plastic wall tile

"Begin with a beautiful background of plastic wall tile." This is the theme for the big '57 Dow advertising and promotion program for dealer-guaranteed plastic wall tile made of Styron®. Dramatic interiors like this delightful "checker" laundry area will be featured in full-color national magazine advertising and in exciting promotion material.

Play up Styron plastic wall tile in your homes in any price range. Make the most of its extensive color range and versatile shapes . . . its unlimited decorating possibilities. Above all, stress its guaranteed quality. Your certified dealer can help you create new buyer preference with dealer-guaranteed plastic wall tile made of Styron. THE DOW CHEMICAL COMPANY, Midland, Michigan, Plastics Sales Department PL1553Q.

IDEA! Make a focal point of stripes in Styron plastic tile to underscore modern kitchens.
National Homes uses Styrofoam

A new concept for construction of all masonry structures:

Styrofoam is used to eliminate dampness and cut building costs. Portland cement mortar bonds Styrofoam to the masonry—permanently, without studs. Plaster keys directly to Styrofoam surface—smoothly, without lathing. No special training or tools are needed. And the warm, dry walls keep their smooth, crack-free appearance year after year. The man who looks ahead will investigate this!
There are good reasons why this is so. The same reasons that can help you enhance your reputation.

Styrofoam* (a Dow plastic foam) is a homogeneous insulation with a remarkable combination of properties. This rigid insulation contains millions of noninterconnecting air cells. As a result, it can't absorb water. It provides true protection against dampness and water. Its low thermal conductivity stays low. In addition, it resists rot, mold, deterioration. And having no food value, vermin and rodents won't bother it.

But what makes Styrofoam even more outstanding is its unparalleled performance in such fields as low-temperature and plaster-base construction . . . industrial equipment . . . roofs, cavity walls and wall panels. This clean, odorless, lightweight insulation has many applications that are well worth your investigation. You'll find Styrofoam pays off in lifelong efficiency and economy.

*Styrofoam is a registered trademark of THE DOW CHEMICAL COMPANY
How to use
RUBEROID QUALITY
to build sales as well as homes

Premium materials, nationally advertised, mean extra assurance for buyers, easier selling for you.

Few home buyers know how to evaluate house quality. They can see the design, of course, and ask about local taxes, schools—but they're lost when it comes to construction features. One way to reassure them that your homes offer real quality is to use — and promote — Ruberoid building materials. Fireproof siding that can't rot . . . windsafe asphalt roof shingles . . . asbestos roof shingles that can't wear out . . . Fiberglas* insulation that prospects recognize as the best name in the business—these are easy-to-describe construction features that impress buyers and build prestige for all homes you sell. Here are some of the best points your salesmen can pass along to prospects. They are easy to remember, and convincing assurances of quality that help close orders.

EXTRA HEAVY
SUBURBANS

TOUGH, LONG-LASTING
SQUARE-TABS
The world’s most popular shingle with a wide color range offers new modern beauty for any home. Made of durable, fire-resistant asphalt for long, trouble-free life. The quality standard strip shingle.

”NEVER WEARS OUT”
AMERICAN THATCH®
Made of fireproof asbestos and cement . . . secure against storm damage by copper anchors. Duroc® finish protects colors from the sun, weather, dirt. “Thatch” design gives three-dimension look. Wide range of beautiful, two-tone colors.
FIREPROOF CLAPBOARD

AUTOCLEAVED SIDING

Can't burn, rot or be eaten by termites. Ruberoid Autoclaved Clapboard combines rich, new lasting colors—protected from dirt and weather by Ruberoid's exclusive Duroc® finish. There's virtually no maintenance expense.

HIGH STYLE

VITRAMIC® SIDING


“LASTS A LIFETIME”

STONEWALL BOARD
FOR BOARD AND BATTEN

Decorative residential sidewalls of asbestos cement. Permanent, fireproof, rotproof! Just score and snap it to size. Comes in standard 4' x 4' and 4' x 8' sheets. No upkeep! Hard, smooth surface is easy to clean. Takes paint beautifully! Use it for soffits, gable ends and 1001 new home construction uses.

FIBERGLAS* INSULATION

Lightweight, high efficiency home insulation in roll blankets, batt blankets, utility batts and perimeter insulation.

Choice of aluminum foil or kraft paper enclosure to keep heat in in winter, out in summer. Outside perforated for "breathing," inside vaporproofed to prevent moisture condensation. Roll blanket lengths 3 to 80 feet, batt blankets in 24", 48" and 96".

PLUS...

Crawl-space cover, reflective insulation, reinforced kraft papers and other important fast-selling profit makers are among the over 100 Ruberoid quality building material products. For information on these and other quality Ruberoid products, see your Ruberoid dealer.

The RUBEROID Co.

Headquarters: 500 Fifth Avenue, New York 36, N. Y.

ASPHALT and ASBESTOS BUILDING MATERIALS
Reference File

ALUMINUM PRODUCTS
Literature is offered on aluminum shade-screening; farm and industrial roofing and siding; and a number of other industrial products, including building wire and bus conductors.—Kaiser Aluminum & Chemical Sales, Inc.
Circle No. A1 on reply card Section G

BEAMS
The use of glued-laminated wood beams for residential construction is discussed and illustrated in booklet. Home designs and plans as well as construction details for this new building product.—Rilco Laminated Products, Inc.
Circle No. A2 on reply card Section G

BUDDLER FILE
“Ways to Build Better and Save with Insulite Product” is the title of a 36-page booklet describing company’s line of siding, shingle backer, sheathing, insulation and roof deck. Contains specifications and important application data.—Insulite Div., Minnesota & Ontario Paper Co.
Circle No. A3 on reply card Section G

BUILDING BOARDS
Detailed illustrations and specifications of firm’s weatherproof insulating building boards are given in this literature. Gives the answers to many construction problems.—Homasote Co.
Circle No. A4 on reply card Section G

BUILDING PAPER
Firm’s full line of reinforced paper products is illustrated and described in color booklet. Includes copper armored paper, vapor barriers, reflective insulation.—American Sisalkraft Corp.
Circle No. A5 on reply card Section G
### Table: Equipment Comparison for a 1,200-sq ft House

<table>
<thead>
<tr>
<th>Insulation</th>
<th>Size Furnace</th>
<th>Size Air Conditioner</th>
<th>Annual Cost of Operation</th>
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</thead>
<tbody>
<tr>
<td>Maximum—using Aluminum-Surface Insulation</td>
<td>75,000 btu</td>
<td>2-ton</td>
<td>$144</td>
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<tr>
<td>Standard FHA Specified</td>
<td>90,000 btu</td>
<td>3-ton</td>
<td>$204</td>
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<tr>
<td>None</td>
<td>105,000 btu</td>
<td>4-ton</td>
<td>$288</td>
</tr>
</tbody>
</table>

This table is based on scientific findings described in Alcoa's new book, *Comfort Everybody Can Afford*.

---

**WITH ALUMINUM-CLAD INSULATION**

Central air conditioning fits any new-home budget

Furnace and air conditioner are smaller...

Monthly operating costs are lower

---

Significant cost advantages of adequate aluminum-clad insulation are shown in this comparison of equipment for a 1,200-sq ft house under typical climatic conditions. Show buyers that savings like these are possible with aluminum-surface insulation. These figures can help you sell more units in 1957.

Adequate aluminum-clad insulation using ALCOA® Aluminum puts year-round comfort—central air conditioning—within the reach of the popular-price-home buyer. Because a smaller furnace and a smaller air-conditioning unit are possible, both equipment costs and operating costs are markedly lower. Here's a powerful sales stimulant that can give you the competitive edge. The whole story is in ALCOA’s new book on insulation, *Comfort Everybody Can Afford*, which contains the important findings of recent ALCOA-sponsored research. Every builder should have a copy. For yours, simply fill in the coupon.

**ALCOA does not make insulation of any kind.** It makes ALCOA Aluminum Foil, which many manufacturers use to produce several types of insulation.

---

Aluminum Company of America, Industrial Foil Division
1610-D Alcoa Building, Pittsburgh 19, Pennsylvania

Gentlemen: Please send my free copy of your new book about insulation, *Comfort Everybody Can Afford*.

Name: ______________________  Title: ______________________

Firm: ______________________  Street: ______________________

City: ______________________  Zone: ______________________  State: ______________________

---

**HERE'S PROOF**—This properly engineered, 1,273-sq ft home in Toledo is heated and air conditioned for less than $12 a month. Maximum effectiveness of its aluminum-clad insulation has been assured by solar orientation, shade trees and correct roof overhang.
HEATILATOR
the first choice of home builders
and buyers

HEATILATOR UNIVERSAL DAMPER
Designed and engineered for open-sided fireplaces

The Universal Damper incorporates both smoke dome and damper in one compact unit. Its scientific proportions are essential to smoke-free operation. Sloping sides of dome permit a back-up course of masonry above damper for safety. Reinforced flange serves as lintel. Damper blade, with chain-pull control, holds firmly in any position.

The Universal Damper simplifies construction with a saving in time and labor. Available in 5 sizes for fireplaces with 2, 3, and 4 open sides.

HEATILATOR SERVICE-WAY
The service entry for modern basements

Home buyers want the convenience of Service-way—one of the most practical ways for the home owner to get full use of his basement. It solves the problem of storing garden tools, outdoor furniture and recreational equipment. The wide single door is counterbalanced to swing up and out of the way at the touch of a finger.

The Service-way is built of heavy gauge steel—electrically welded and reinforced. Comes fully assembled, ready to install.

the genuine
HEATILATOR FIREPLACE UNIT

A heat-circulating fireplace unit that assures smokeless, trouble-free operation—that's what builders and owners look for when they are planning a home. That's why there are more genuine Heatilator Fireplaces in use today than all other makes combined!

...Heatilator design has kept in step with progress over the years. It is the only unit specially engineered for today's modern homes.

...it's the only fireplace unit with a positive Pressure-Seal Damper. Prevents loss of heat in winter and costly summer air conditioning when fireplace is not in use.

...sturdily constructed with fully welded seams throughout. The one-piece boiler plate firebox is designed for a lifetime of trouble-free service.

...easy to install. No chance for construction errors. Takes any size or shape flue.

Write for full information and specifications to Heatilator Inc., 824 E. Brighton Ave., Syracuse, N.Y.
RY proudly points to its performance record of “20 years without a single roofing failure.” Think what a clincher this can be in selling top quality (which means top profit, too) asphalt shingle or built-up roofing!

OOFING that’s full-value bonded for 20 years—this is the real explosive for demolishing sales obstacles. RY is the one and only nationally advertised roofing backed by such an “eye-opening” sales weapon—another reason why it’s easier to sell RY!

OU sell higher quality, more profitable roofing when you sell RY. And your sales are speeded by RY’s aggressive, “full-value 20 year bond” advertising in leading consumer magazines—PLUS a treasure chest of free promotional helps for your local use. Write TODAY for complete details!
From the OUTSIDE

- Pitch won't bleed through because it's Arkansas Soft Pine siding which is resin free.
- Uniform soft texture nails without splitting, takes primer evenly. Finish coat penetrates the wood fiber and holds.
- Result—a tailored paint job protected against bleeding, checking, fading... lasting qualities that can take it in any weather.

Thousands of Contractors Rely on the New Bostwick Expanded Corner Bead

As straight as a string... no crooked ends... no bows... that's it every time with Bostwick Expanded Corner Bead. All this is due to a brand new Bostwick expanded corner bead machine. It has electronic controls to bring you product uniformity. That's how Bostwick can give you these six time-saving features, and no call-backs for premature repairs at six cents per minute:

1. Straight end to end
2. Ends sheared square
3. Plaster key to the edge of the bead
4. Uniform width wings having same angle to the nose
5. Special non-peel galvanized coating
6. Special expanded small mesh wings

Your dealer can get Bostwick quickly if he doesn't have it in stock. You won't like a substitute as well. Want a sample? Write today.

THE BOSTWICK STEEL LATH COMPANY
103 HEATON AVE. - NILES, OHIO

CROSSETT LUMBER COMPANY
CROSSETT, ARKANSAS
# GLUED-LAMINATED AND SOLID TIMBER STRUCTURAL MEMBERS

Engineered members cut erection costs and add beauty to any type of building.

## TYPICAL SHAPES

<table>
<thead>
<tr>
<th>Typical Shapes</th>
<th>Uses</th>
<th>Spans</th>
<th>Advantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>TANGENT ARCHES</td>
<td>Churches, Gymnasiums, Chapels, Theaters</td>
<td>24' to 100'</td>
<td>Arch and laminated purlins gives unsurpassed beauty, without expensive veneering. Fire resistant. Made of kiln-dried Douglas Fir selected for strength and appearance.</td>
</tr>
<tr>
<td>RADIAL ARCHES</td>
<td>Gymnasiums, Hangars, Auditoriums, Armories, Skating Rinks, Bowling Alleys</td>
<td>40' to 120'</td>
<td>Graceful arches have the clean, natural beauty of fine wood. Wide, clear spans give large unobstructed space without unsightly framework. Fire resistant. Efficient design makes a building that is economical to erect.</td>
</tr>
<tr>
<td>STRAIGHT</td>
<td>One-story Schools, Stores, Offices, Residences, Gyms, Industrial Buildings</td>
<td>20' to 60'</td>
<td>Resists checking and warping and other seasoning defects common to solid timber. Fire resistant. Combines structural and decorative advantages for economy.</td>
</tr>
<tr>
<td>ARCHED-PITCHED</td>
<td>Wide, Clear-Span Buildings, Garages, Factories, Hangars, Warehouses, Gymnasiums</td>
<td>24' to 200'</td>
<td>Well adapted to wide, clear-span construction. Economical. Designed for specific requirements such as concentrated loads, hoists, etc.</td>
</tr>
<tr>
<td>BOWSTRING TRUSSES</td>
<td>Stores, Factories, Theaters, Warehouses, Hangars</td>
<td>24' to 65'</td>
<td>Light enough to erect without special equipment. One inch roof sheathing can be nailed to top of arch with calling material nailed directly to lower tie.</td>
</tr>
<tr>
<td>TIED ARCHES</td>
<td>Small Hangars, Warehouses, Gyms, Theaters, Community Buildings</td>
<td>28' to 80'</td>
<td>Easy to plan. Economical. Combines sidewall and roof in one piece for easy erection. Requires no costly field assembly. Any type of roofing can be applied over sheathing.</td>
</tr>
<tr>
<td>UTILITY ARCHES</td>
<td>Bridges, Bulkheads, Culverts, Docks, Falsework, Floats, Grandsstands, Ramps, Outdoor Theater Screens, Retaining Walls, Shipways</td>
<td>our service engineers will gladly consult with you</td>
<td>Designed for specific loads, precision manufactured by skilled workmen of structural timber. Cut to exact lengths, holes bored for all connections — bolts and hardware furnished. Delivered when promised for erection by local crews.</td>
</tr>
<tr>
<td>ALL TYPES</td>
<td>Churches, Gymnasiums, Schools, Auditoriums, Stores, Offices, Homes, Industrial Buildings</td>
<td>12' to 18'</td>
<td>Rilco Deck is milled from solid western red cedar or light colored species. Double tongue and grooved pieces are spliced through predrilled holes to form slab. Serves as sheathing, insulation, ceiling — economical, fire safe construction.</td>
</tr>
</tbody>
</table>

Also all types of farm rafters.
INSIDE-OUTSIDE

Glaze a panel of glass right into 8” or 10” siding—Western Red Cedar doesn’t shrink. The sweeping shadow lines form a pleasing pattern for the eye to follow into the entrance hall...it’s an economical “plus value,” using versatile Western Red Cedar to build in another sales point.

EFFECTIVE DESIGNS

Either Siding or Paneling designs easily into patterns of beauty...for hall ends, over mantles, entrances, garage doors, planters or ceilings. Cedar’s natural beauty and warm color tones produce focal points for interesting individuality. Build this simple 4’ square of ½” x 6” Beveled Siding. Your cost will be surprisingly low. There’s no extra material to buy—use the same Western Red Cedar Beveled Siding that goes up on your home exteriors.

You “Build-in” Sales Points
WITH RED CEDAR

The genuine natural wood color of versatile Western Red Cedar gives that saleable quality-tone to your homes. Red Cedar is easy to decorate...easy-to-work...and goes up fast without mechanical application gimmicks.

Ask your lumber dealer for the kiln dried, clear grades of Western Red Cedar.

Write for our “Cedarhome 1965” sketch, technical and merchandising information.

WESTERN RED CEDAR
LUMBER ASSOCIATION

4403 WHITE-HENRY-STUART BUILDING • SEATTLE 1, WASHINGTON

Are You Missing . . .

A WHOLE AREA OF PROFITS!

SELL AIR-JET. The first complete line of “A” & “B” vent packaged chimneys!

New AIR-JET “B” VENT . . .

completes the superior packaged chimney line. One source supplies all vent sizes, 3” to 12”.

Here’s a field of quick “plus” profits just waiting for you! It’s the FIRST COMPLETE LINE of packaged chimneys from a single source. This fast-selling line is soaring in popularity because . . . BUILDERS know AIR-JET saves time, labor and money! HOMEOWNERS like AIR-JET beauty, efficiency, space savings. YOU will enjoy AIR-JET “plus” profits with no extra effort. AIR-JET CHIMNEYS come neatly packaged . . . easy to handle . . . easy to stock . . . easy to sell. Eliminate big inventories of complicated fittings . . . save storage room. Join the men who are already reaping these new “plus” profits in the building field.

“Brick Beauty” — one of 8 smart top housings.

All-fuel AIR-JET for coal, oil and wood installations.

LIGHT WEIGHT • EASY TO HANDLE • QUICK TO INSTALL

SPECIAL CONSTRUCTION IS STURDY, YET DISMANTLES EASILY

Meets UL, VA & FHA specifications

Write for brochures and distribution data to Dept. A

GENERAL PRODUCTS CO., INC.
FREDERICKSBURG, VA.

AMERICAN BUILDER
CreZon overlaid plywood siding gives

**EXTRA CONSUMER APPEAL**

- Homes with CreZon overlaid plywood siding find a ready market... they look better, last longer and slash maintenance costs through the years—important sales features for today's discriminating buyers.

  This tough, weather-resistant CreZon surface won't check or blister, holds paint years longer... and it saves time and money in construction too!

  With lap siding you run fewer courses because CreZon plywood comes in wider widths of 12", 16" and 24". It butts accurately, nails easily without drilling, works cleanly without splintering. CreZon plywood siding speeds work, takes fewer man hours to apply. And you save 19% on trim loss (CreZon siding has a trim loss factor of only 1% compared with the accepted waste figure of 20%).

  You save too on paint and painting time because the velvet-smooth CreZon surface has a natural affinity for paint, takes paint easier, holds it better. And you don't have to waste time preparing the painting surface—no sanding or patching, and some sidings are pre-primed too.

  CreZon plywood is opaque; it has no grain pattern. Nor is there any chance of grain rise marring your painted surface.

  Find out how CreZon plywood will help you sell more homes with a saving in labor and materials. You can obtain CreZon plywood in sheets for flat siding or pre-cut as lap or bevel siding.

  CreZon plywood is available through the leading manufacturers and their distributors listed below. Consult your Yellow Pages for the company nearest you or write Dept. CR, Crown Zellerbach, 343 Sansome Street, San Francisco, California.

**DISTRIBUTORS:**

- Diamond Lumber Company
  Tillamook, Oregon
- Georgia Pacific Plywood Co.
  Olympia, Washington
- Edward Hines Lumber Co.
  Chicago, Illinois
- Mount Baker Plywood, Inc.
  Bellingham, Washington
- Roseburg Lumber Co.
  Roseburg, Oregon
- St. Paul and Tacoma Lumber Co.
  Tacoma, Washington
- United States Plywood Corp.
  New York 36, New York
- Walton Plywood Co.
  Everett, Washington
- Also available in Canada through:
  Canadian Western Lumber Company
  New Westminster, B.C.
  MacMillan & Bloedel, Ltd.
  Vancouver 1, B.C.
  Western Plywood Co., Ltd.
  Vancouver 15, B.C.
BUILDING PRODUCTS

Product description, uses, advantages and installation information are given in this catalog which describes the Armstrong line of acoustical ceiling material, sheathing, roof deck, board, plank, tile and insulating materials.—Armstrong Cork Co.

Circle No. 65 on reply card Section G

BUILDING STONE

“Golden Tone Sandstone” applications are colorfully illustrated in new 16-page booklet—home, churches, institutional buildings and others. Included: pattern and color examples, wall coverage-computing guide, setting data—Briar Hill Stone Co.

Circle No. 67 on reply card Section G

CONCRETE AGGREGATE

Performance information is available on the values and extra living comfort possible with floors of insulating concrete.—Elastizell Corporation of America.

Circle No. 69 on reply card Section G

CLAY FLUE LININGS

Available literature includes “Home is Where the Hearth Is,” on fireplace design and construction; standard recommendations for safe chimneys; and a recommended building code for chimneys and flues.—Clay Flue Lining Institute.

Circle No. 70 on reply card Section G

CONCRETE FORMS

“Sonotube” fibre forms for round columns of concrete are featured in color folder. Shows variety of applications; gives specifications, technical data.—Sonoco Products Co.

Circle No. 71 on reply card Section G
A Bermuda roof of Follansbee Terne will give your houses a distinctive beauty that prospective buyers can see—a visible quality that sells its value!

If you would like more particulars about the Bermuda roof of Follansbee Terne, we will be happy to send you additional information about installation and cost. Other data also appears in the Architectural and Light Construction Files of Sweet's Catalog.

...and a Terne Roof Will Sell Your Homes!

Normally, your prospective home buyers may not ask about the roof. But a Terne roof has a distinctive quality those buyers can see—and a feature you can sell.

They will be impressed to know that a Terne roof will last as long as the house stands... a Terne roof is fireproof, weathertight, windproof and can be painted any color, anytime, to harmonize with the house exterior. And if the house is air conditioned, a light-colored Terne roof will reflect more of the sun's heat than any other type of roof.

The beauty and serviceability of a Follansbee Terne roof is that added attraction that will help you sell your homes quickly.

Roofing and sheet metal contractors everywhere will install Follansbee Terne Roofs.

FOLLANSBEE STEEL CORPORATION
FOLLANSBEE, WEST VIRGINIA

Terne Roofing * Cold Rolled Strip * Polished Blue Sheets and Cols
Sales Offices in Principal Cities
They're getting “new house” ideas

Big four-color spreads in Better Homes & Gardens tell your prospects to look for Barrett materials in the homes they buy.

The millions of men and women who read “home” magazines go house-hunting with well-informed notions. For one thing, they know how to push aside the fancy frills and look for evidence of lasting quality.

So be sure to let them know you use Barrett building materials in the homes you build. For the Barrett name has a long-standing reputation for quality.

Backing up this reputation, two-page, four-color spreads appear in Better Homes & Gardens to tell your prospects, “It’s Better Built with Barrett!” And today the name Barrett means more than roofing. It means a full line of building materials
from Barrett

including asphalt and asbestos sidings, insulating building board and sheathing, insulating tile, translucent building panels, rock wool insulation and other materials.

Tie in with this new Better Homes & Gardens campaign by including Barrett among the famous names that help sell your houses to the public.

BARRETT DIVISION, Allied Chemical & Dye Corporation, 40 Rector Street, New York 6, N. Y.
What an X-ray would show where Dur-O-wal is used in every second course 16" c. to c.

**DUR-O-WAL** prevents cracking and adds lateral strength to masonry walls at low, low cost...

**RIGID MASONRY WALL REINFORCEMENT**

Mechanical bond every 8 inches of wall
Electric butt welds place all rods on a single plane
Deformed side rods lay straight and flat
Trussed design causes side rods to work together
Two mortar locks at each weld
Deformed side rods for maximum bond strength
Conforms to ASTM Standard A-82-34 for high tensile steel
10 foot lengths for easy handling
6 inch lap at splices develops continuity and maintains reinforcing strength
All steel in single plane makes possible uniform mortar joints

Full 6 inch lap at the splices maintains reinforcing continuity. Fast, strong corners easily fabricated on the job.

Exclusive Trussed Design for maximum lateral strength.

**DESCRIPTION:**

Extra Heavy Dur-O-wal is manufactured with 3/16 inch (.1875) Side Rod and No. 9 (.1483) Cross Rod. Standard Dur-O-wal is manufactured with No. 9 (.1483) Side Rods and No. 9 (.1483) Cross Rod.

**SELECTION TABLE**

<table>
<thead>
<tr>
<th>Wall Thickness</th>
<th>4 in.</th>
<th>6 in.</th>
<th>8 in.</th>
<th>10 in.</th>
<th>12 in.</th>
<th>Extra Heavy Dur-O-wal</th>
<th>4-EH</th>
<th>6-EH</th>
<th>8-EH</th>
<th>10-EH</th>
<th>12-EH</th>
<th>13-EH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wt. per 1000 lin. ft.</td>
<td>247 lb.</td>
<td>250 lb.</td>
<td>257 lb.</td>
<td>264 lb.</td>
<td>276 lb.</td>
<td>292 lb.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Dur-O-wal</td>
<td>4-S</td>
<td>6-S</td>
<td>8-S</td>
<td>10-S</td>
<td>12-S</td>
<td>13-S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wt. per 1000 lin. ft.</td>
<td>178 lb.</td>
<td>180 lb.</td>
<td>187 lb.</td>
<td>196 lb.</td>
<td>207 lb.</td>
<td>212 lb.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Furnished in either bright basic or galvanized steel. Specify Drip Sect Dur-O-wal for Cavity Walls.

NOTE — In determining whether to specify Standard weight or Extra Heavy weight Dur-O-wal, comparisons in following table should be properly evaluated:

<table>
<thead>
<tr>
<th>Weight lbs.</th>
<th>Surface bond tensile steel area—sq. in. per lin. ft.</th>
<th>Number mortar locks p lin. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard weight Dur-O-wal</td>
<td>0.19</td>
<td>11.18</td>
</tr>
<tr>
<td>Extra Heavy Dur-O-wal</td>
<td>0.26</td>
<td>14.14</td>
</tr>
</tbody>
</table>

AMERICAN BUILDER
CAVITY WALLS
Cavity walls shall be reinforced with drip section deformed Dur-O-Wal in the first and second bed joints (8" c to c) immediately below window sills and first and second bed joints (8" c to c) above window lintels and every second bed joint (16" c to c) throughout remainder of masonry area. Dur-O-Wal in first bed joint immediately above and below openings shall be continuous. In second bed joint it shall extend two feet beyond each side of opening. Joint reinforcement shall be wide enough to extend to within one inch of both exterior and interior faces of wall. Diagonal cross rods that serve as ties shall be formed with a drip and shall be of non-corrosive (galvanized) metal. Drip can be placed at center or off-center in cross rod as required. Codes generally call for a minimum of one 3/16 in. tie for each 3 sq. ft. of wall. Dur-O-Wal exceeds this requirement and provides maximum anchorage with positive and uniform spacing of ties.

<table>
<thead>
<tr>
<th>COMPARISON TABLE VARIOUS TYPE TIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>Z-Bars</td>
</tr>
<tr>
<td>Rectangular</td>
</tr>
<tr>
<td>U-Bars</td>
</tr>
<tr>
<td>Dur-O-Wal</td>
</tr>
</tbody>
</table>

Dur-O-Wal, for Cavity Walls is furnished with steel side rods and galvanized cross rod or with all galvanized steel rods.

EXTERIOR WALL BEARING CONSTRUCTION
Joint reinforcement — Dur-O-Wal — shall be placed in first and second bed joints (8" centers) immediately below window sills and first and second bed joints (8" centers) above window lintels and every second bed joint (16" c to c) throughout remainder of masonry area. Joint reinforcement shall be wide enough to bridge air space and shall be 2 inches less in width than normal thickness of the wall. Minimum mortar coverage on exterior exposed face of wall shall be not less than 3/4". Reinforcement shall be lapped sufficiently at splices to insure continuity and corners shall be cut and bent as shown in details.

WALLS OF STACKED COURSING
Masonry walls of stacked coursing of through wall units or stacked coursing of brick not bonded to backup shall be reinforced with deformed Dur-O-Wal placed in every course (8" c to c) and shall be wide enough to extend to within one inch of both exterior and interior faces of wall.

INTERIOR PARTITIONS
Interior partitions shall be reinforced with deformed Dur-O-Wal in first and second bed joints over door openings (8" c to c) and every second course (16" c to c) throughout remainder of masonry area.
BRIXMENT MAKES

BRIXMENT is a waterproofed masonry cement for every kind of brick, tile, concrete block or stone masonry, and also for stucco and plaster. Brixment complies with the requirements of the American Society for Testing Materials Specification C91 and the Federal Specification SSC-181 for Masonry Cement (both Type I and II). Specify one part Brixment, three parts damp sand.

BRIXMENT MAKES SOUND MORTAR

Unsoundness in mortar material is readily detected by the autoclave test. This severe test rapidly accelerates the chemical reaction of mortar materials, and the slightest unsoundness is immediately revealed by excessive expansion.

Brixment easily meets the requirements of the autoclave tests included in Federal and ASTM Specifications for Masonry Cement. Therefore, when Brixment is used, sound mortar and strong, durable brickwork are assured.

BRIXMENT IS WATERPROOFED

Brixment is waterproofed, during manufacture, with the most effective air-entraining water-repelling agent known. Even under pressure, water cannot readily penetrate Brixment mortar. Brixment meets the special requirements of Federal Specification SSC-181 for water-repelling masonry cements.

BRIXMENT MORTAR HELPS PREVENT LEAKY WALLS

When a wall leaks, water almost never passes through the brick or through the mortar. It works its way through cracks or openings between the brick and mortar.

The best precaution, therefore, is to parget or back-plaster the face brick with waterproofed mortar before the backup units are laid. Therefore, if the face brick are back-plastered with Brixment mortar, a water-repelling barrier is set up against the further penetration of any water which may have worked its way through cracks or voids in the outside four inches of the wall.

A52
BETTER MORTAR!

BRIXMENT MORTAR IS MORE DURABLE

Brixment mortar is durable. This durability is due partly to the strength and soundness of Brixment mortar, and partly to the fact that an air-entraining water-repelling agent is incorporated into Brixment during manufacture. This helps prevent the mortar from becoming saturated — therefore helps protect it from the destructive action of freezing and thawing.

BRIXMENT MORTAR HELPS PREVENT EFFLORESCENCE

Brixment helps prevent efflorescence. The air-entraining water-repelling agent in Brixment helps to prevent water from saturating the mortar and dissolving the small amount of salts that it may contain. Moreover, Brixment mortar prevents water from percolating down through the wall, dissolving salts which may be in the brick, and carrying them to the surface.

BRIXMENT MORTAR ASSURES STRONG WALLS

The strength of Brixment mortar is more than adequate for any type of brickwork. It is recommended for foundations, loadbearing and cavity walls, for free-standing stacks — for every kind of masonry where strength is required.

Brixment mortar is equivalent in strength to 1-1-6 cement-and-lime mortar. It meets the requirements of ASTM specification C270 for mortar, type N.

BRIXMENT MORTAR HAS BETTER WATER-RETENTION AND GREATER PLASTICITY

Brixment mortar has high water-retaining capacity. Brixment strongly resists the sucking action of the brick and stays smooth and plastic longer when spread out on the wall. This permits a more thorough bedding of the brick and a more complete contact between the brick and the mortar. Brixment's exceptional plasticity has made it the most widely-used masonry cement in the field. Brixment makes it easy for the bricklayer to secure neat, economical brickwork.
Flintkote Insulation Roof Deck gives you functional, practical and decorative advantages for popular open beam construction...

OUTSIDE...

No one needs to tell you how increasingly popular open beam design is becoming. Not only for custom-built luxury homes... but for even lower priced houses.

However, have you discovered the new material that makes open beam construction easy, rich-looking and money-saving? Flintkote Insulation Roof Deck.

In addition to a fine appearance, Flintkote Roof Deck provides high structural strength, unusually fine insulation qualities.

It eliminates the use of old-fashioned materials... simplifies and speeds application. Reduces material handling, sawing and nailing. Cuts labor costs as much as 50%.

Flintkote Insulation Roof Deck is decking, insulation, and pre-finished ceiling all in one. The beautiful open beam ceiling it produces makes a home seem more spacious, more gracious. At low cost.

There are also worthwhile savings because Flintkote Insulation Roof Deck eliminates the need for further insulation. And because these products are prefinished... so that they do not require painting.

Flintkote Roof Deck provides a strong roof... that resists cracking or warping. A roof that makes heating and air conditioning both highly efficient and economical.

THE FLINTKOTE COMPANY, Building Materials Division,
30 Rockefeller Plaza New York 20, N. Y.

and

INSIDE...

Vapor Barrier

Flintkote Insulation Roof Deck is manufactured in two types. One, with a built-in vapor barrier and a factory-applied joint sealer in the groove on the long edge (as indicated in illustration), was designed for use in areas where the average January temperatures are lower than 40° F. The other, without vapor barrier or joint sealer, is for use in areas where the average January temperatures exceed 40° F.

...the extra years of service cost no more!
MASONITE
RIDGEGROOVE SIDING

Up Fast!
You cover large wall areas quickly. Full-dimension panels are 4' wide and up to 16' long. Quickly, securely fastened. Shiplapped edges. Little dimensional loss...low cutting loss...no knots or splits.

Finished Fast!
Takes paint or stain quickly, evenly. No knots or grain to rise; walls keep their "just painted" look.

Sold Fast!
The "luxury look" at low cost. Distinctive appearance with ridge-textured surface and grooves 4" or 8" apart or at random widths.

MASONITE CORPORATION
Dept. AB-4, Box 777, Chicago 90, Ill.
Tell me more about Masonite exterior products, at no obligation to me.
Name:__________________________
Firm:__________________________
Address:_________________________
City:____________________ State:__________
Zone:________ County:_________

©Masonite Corporation—manufacturer of quality panel products.
subfloor-underlay

2-4-1 is the new 1 3/4” plywood that makes possible the revolutionary “panel and girder” floor construction system that saves from fifty to five hundred dollars per house.* It also gives you markedly superior construction. You save on both framing costs and application time. And because 2-4-1 has structural strength plus smooth surface, it serves as both subfloor and underlayment. More savings!

*Actual savings reported by builders vary with local wages, size of house and type of floor construction previously used.

3 ways to get DOUBLE VALUE

2. Texture One-Eleven siding-sheathing

Here's another way to sharply cut costs by doing two jobs with one material. With Texture One-Eleven siding, you can eliminate sheathing. This new vertical shadow-line Exterior plywood adds crisp good looks to any style home. Panel is 3/8” thick, with 1/4” deep grooves, leaving a full 3/8” thickness under grooves, meets FHA MPRs for combined siding-sheathing.

For complete information about 2-4-1, Texture One-Eleven and Overlaid plywood write for free “Plywood Light Construction Portfolio.” (Offer Good USA Only). Douglas Fir Plywood Association, Tacoma 2, Wash.
New 2-4-1 serves as both subfloor and underlay, spans 4' girder spacing. Inset 2x4 blocking supports panel edges. Finish floor may be hardwood, tile, carpet.

Girders set flush with footings lower house about 12". Result: important savings in labor and materials plus a visual bonus achieved by giving house attractive "low-lying" feeling.

with fir plywood

3. Overlaid Plywood siding-sheathing

Overlaid fir plywood also has the "plus" structural strength to serve as both siding and sheathing. The smooth, durable resin-fiber overlay is permanently fused to Exterior fir plywood to provide the perfect base for smooth, long-lasting paint finishes. Overlay eliminates checking, grain raise. Available in standard sizes, thicknesses. May be used as flat panel, board and batten or lapped siding.
CONCRETE MASONRY
Here is a complete and authoritative manual on the proper procedure for the building of concrete masonry walls. An extensive use of pictures illustrates the methods.—Louisville Cement Co.
Circle No. A12 on reply card Section G

CONCRETE MASONRY
This 64-page handbook on concrete masonry contains technical data to aid builders in designing or constructing concrete masonry building that will meet modern requirements.—Portland Cement Ass'n.
Circle No. A13 on reply card Section G

UNDERGROUND RECEIVERS
Neat, buried container keeps refuse out of sight—only the lid shows above ground. Convenient foot-pedal operation.

STEEL, CAST, OR DOME DAMPERS
Formed steel-or cast-iron dampers designed with the mason in mind. Steel dome dampers for multi-opening fireplaces. All heavy construction, easy to install and operate.

CIRCULATOR FIREPLACE
A heat circulating fireplace that serves as a masonry form. Expedites building; assures perfect operation. Full smoke dome. Exclusive Radiant Blades!

INCINERATORS
Complete indoor disposal of burnable trash and garbage. A full line from low-cost fuelless models to approved fuelled units.

INDOOR or OUTDOOR BARBECUE UNITS
All-metal barbecue units, in a range of styles and sizes for outdoor or indoor custom-designed installations.

EXTerior SIDING
In attractive color, 16-page booklet shows photos of a variety of siding applications. Installation directions also are given.—Masonite Corp.
Circle No. A14 on reply card Section G

FIREPLACE DAMPERS
This 12-page manual on fireplace dampers and accessories also gives suggestions on construction, floor plan requirements and mason's instructions for building various types of fireplaces.—Bennett-Ireland, Inc.
Circle No. A15 on reply card Section G

FIREPLACE UNITS
Portfolio contains complete information on firm's fireplace equipment; includes four Heatform models; heat circulating unit; two models of Form Damper; building instructions.—Superior Fireplace Co.
Circle No. A16 on reply card Section G

FRAMING ANCHORS
These brochures detail the use of "Trip-L-Grip" framing anchors. While only three basic anchors will suffice for any framing job, these brochures show a multitude of uses, with every job problem in framing.—Timber Engineering Co.
Circle No. A17 on reply card Section G

INSULATION
The advantages and uses of aluminum insulation as well as technical data for figuring heating and cooling requirements are the subjects of discussion in this 48-page book.—Aluminum Co. of America.
Circle No. A18 on reply card Section G

INSULATION
New manual describes complete line of reflective insulation and their specialized uses. Offers newest installation techniques and comparative insulation value charts.—Infra Insulation, Inc.
Circle No. A19 on reply card Section G

INSULATION
Brochures gives performance features and installation data on "Nu-Wood structural insulating boards and on "Balsam-Wool" blanket-type insulation.—Wood Conversion Co.
Circle No. A20 on reply card Section G
you know you're right when you specify by DFPA* grade-trademarks

factory-inspected, laboratory-tested
To qualify for DFPA grade-trademarks, manufacturers must pass rigid and continuous inspection of current plywood production. In addition to these on-the-spot mill checks by DFPA quality supervisors, thousands of samples undergo scientific testing in DFPA laboratories. Use of grade-trademarks may be withdrawn if quality is not satisfactory.

right grade, right quality for every job
DFPA grade-trademarks are specification guides to the right grade for a specific job. Only genuine DFPA quality-tested panels bear DFPA registered grade-trademarks. There are imitations. Don't be misled!

Be sure you can tell the difference.
Send for the DFPA Quality Story—a portfolio of grade-use data and a step-by-step description of the DFPA quality control program. Write Douglas Fir Plywood Association, Tacoma 2, Washington. (Offer good USA only)

DFPA grade-trademarks mean quality FIR PLYWOOD

A59
Low Cost... Easy to Apply
Permanently Trouble-Free

EASY TO HANDLE. Cheslene is a long-life plastic film extruded from PURE polyethylene. Fold it... flex it... Cheslene won't tear, crack or pin-hole! One man application with pressure sensitive tape or staples.

CHESLENE IS EXTRA STRONG... remains chemically inert PERMANENTLY. It can't rot, dry out or become brittle. Acids, alkalis, caustics do not affect its rugged water-proofing abilities. 30,000 sq. in. of Cheslene 1 mil gauge weigh only 1 lb.

CHESLENE IS ECONOMICAL... Imagine... permanent moistureproof protection at only 1½¢ per sq. ft. with Cheslene 4 mil gauge. Non-Flammable too!

Hundreds of uses for CHESLENE
- ceilings
- walls
- foundations
- crawl spaces
- sub-flooring
- drop cloth
- temporary windows
- flashing
- roofing

AMERICAN BUILDER Reference File

INSULATING SIDING
Brochure illustrates with detailed construction drawings the application principles of insulating siding for both new and remodeling work.—Insulating Siding Ass'n.

Circle No. A21 on reply card Section G

LAMINATED TRUSSES
Arches, beams and trusses of glued-laminated wood are discussed and illustrated in this 24-page book. Photographs, details and charts give technical information on the use of these products.—Rilco Laminated Products, Inc.

Circle No. A22 on reply card Section G

LUMBER
This handbook for builders gives specification and grading data for Arkansas Soft Pine. Illustrated with photos and construction details.—Arkansas Soft Pine Bureau.

Circle No. A23 on reply card Section G

LUMBER
Technical data on Southern Pine dimension lumber for light construction. Properties, grades and uses are shown in charts and photographs.—Southern Pine Association.

Circle No. A24 on reply card Section G

LUMBER
Fully covered in two well illustrated booklets are the grades and uses of two major western forest woods—Douglas Fir and West Coast Hemlock.—West Coast Lumbermen's Assn.

Circle No. A25 on reply card Section G

MASONRY REINFORCING
Folder on steel reinforcing for masonry walls outlines features of material and gives general specifications as well as helpful technical data.—Dur-O-Wal Div., Cedar Rapids Block Co.

Circle No. A26 on reply card Section G

MASONRY REINFORCING
Descriptive brochure is packed with facts about “Wal-Lok” a mortar joint that minimizes shrinkage cracks and increases the wall strength.—Adrian Peerless, Inc.

Circle No. A27 on reply card Section G
NOW!

PLYSCORD®

with EXTERIOR GLUE

joins the distinguished family of fir plywood structural products

GENUINE
DOUGLAS FIR PLYWOOD

PLYSCORD®

EXTERIOR GLUE

GRADE C-D SHEATHING

00

DFPA®
TESTED QUALITY

SEE YOUR SUPPLIER
FOR DETAILS

Or write DOUGLAS FIR PLYWOOD ASSOCIATION, Tacoma 2, Wash.

APRIL 1957
WHY RISK YOUR REPUTATION AS A BUILDER FOR JUST A FEW DOLLARS?

ARKANSAS SOFT PINE

PUTS SATISFIED CUSTOMERS IN YOUR FUTURE!

Strength!
ARKANSAS SOFT PINE sheathing has supreme nail-holding power—eliminates constant upkeep and repairing.

Insulation!
ARKANSAS SOFT PINE sheathing insulates effectively for it is a non-conductor of heat or cold.

Quality!
ARKANSAS SOFT PINE sheathing will not shrink or swell because it has been properly seasoned—and it is strong, dry lumber.

FREE Builder's Handbook giving complete information on grades and how to secure Arkansas Soft Pine.

TEAR OFF AND MAIL
ARKANSAS SOFT PINE BUREAU
157 Boyle Building
Little Rock, Arkansas
Please send copy of your Handbook for Builders.
NAME
ADDRESS
CITY & STATE

MORTAR
Better mortar with the use of Brixment is outlined in this catalog. Water-proofed masonry cement is described along with application details, durability data and specifications.—Louisville Cement Co.

PERIMETER INSULATION
Brochure describes “Flexcell” a thermal insulating material used to separate a concrete floor slab at grade from the foundation wall and ground. Construction details for many types of slabs.—Celotex Corp.

PLASTER ACCESSORIES
Casing beads, bullnosing, metal lath and all types of plastering accessories are described in literature available.—Inland Steel Products Co.

PLYWOOD SIDING
Exterior type, overlaid fir plywood siding is described together with installation details and finishing instructions.—Fir Plywood Association.

PREFABRICATED CHIMNEYS
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<td>16¼” – 2½”</td>
<td>45 Sq. Ft.</td>
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<tr>
<td>47¼” – 5”</td>
<td>½” Mortar Joints</td>
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<tr>
<td>37½” – 7¼”</td>
<td>All 2½”</td>
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<tr>
<td>MOST POPULAR PATTERN</td>
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<tr>
<td>2 Heights – 2½”</td>
<td>50 Sq. Ft.</td>
</tr>
<tr>
<td>1 Height – 5”</td>
<td>½” Mortar Joints</td>
</tr>
<tr>
<td>All 2½”</td>
<td>55 Sq. Ft.</td>
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<tr>
<td></td>
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<td>Sugar Pine</td>
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<td>ENCELAMANN SPRUCE</td>
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Kewanee Mfg. Co. ...................... B14

L
Libbey-Owens Ford Glass Company .... B71, B72, B73, B74

M
Macklanburg-Duncan Company .......... B44, B45
Marsh Wall Products, Incorporated B60
Mississippi Glass Company .......... B76

N
National Gypsum Company .......... B69
National Oak Flooring Manufacturers Assn. B32, B33
Nordahl Manufacturing Company B92

P
Paine Lumber Company ................ B40
Pittsburgh Plate Glass Company B98, B99
Precision Parts Corporation .......... B34

R
Ray-O-Lite Corporation of America B49
Ready-Hung Door Corporation ....... B21
Roach & Musser Company ............ B86
Rollscreen Company ................... B77, B79, B81
R. O. W. Sales Company .............. B50, B51

S
Schegel Manufacturing Company ....... B30
Shenango Crafts, Incorporated ....... B92
Silcrest Company, The ............... B56, B57
Storm King Corporation .............. B91

U
United States Plywood Corporation B47, B96, B97
United Steel Fabricators, Incorporated B41

V
Valley Metal Products Company B100
Vento Steel Products Company, Incorporated B75
Visador Company, The ................ B30

W
Ware Laboratories, Incorporated B58, B59
Whizzer Industries, Incorporated B63
Wino Ventilator Company .......... B91
Winter Seal Corporation .... B28, B29
Wood-Mosaic Corporation .......... B78
Wright Manufacturing Company .......... B42
Yetter Products of Savannah Georgia B91

APRIL 1957
The paneling patterns shown here are standards established by the Western Pine Association and may be ordered 3/8" thick if desired. On many patterns, WP-4 can be run on the reverse side if so ordered from the mill. This may be desirable if paneling is to be exposed on both sides. Shiplap patterns have 3/8" tongue while tongue and groove patterns have 5/8".

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP 1</td>
<td>5 1/4&quot; - 7 1/4&quot; - 9 1/4&quot; - 11 1/4&quot;</td>
</tr>
<tr>
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</tr>
<tr>
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<td>5 1/4&quot; - 7 1/4&quot; - 9 1/4&quot; - 11 1/4&quot;</td>
</tr>
<tr>
<td>WP 4</td>
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</tr>
<tr>
<td>WP 5</td>
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</tr>
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<td>WP 6</td>
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</tr>
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</tr>
<tr>
<td>WP 8</td>
<td>5 1/4&quot; - 7 1/4&quot; - 9 1/4&quot; - 11 1/4&quot;</td>
</tr>
<tr>
<td>WP 9</td>
<td>5 1/4&quot; - 7 1/4&quot; - 9 1/4&quot; - 11 1/4&quot;</td>
</tr>
<tr>
<td>WP 10</td>
<td>3 5/8&quot; - 5 5/8&quot; - 7 5/8&quot; - 9 5/8&quot; - 11 1/4&quot;</td>
</tr>
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<td>WP 11</td>
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</tr>
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</tr>
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<td>WP 18</td>
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</tr>
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</tr>
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<td>WP 20</td>
<td>5 1/4&quot; - 7 1/4&quot; - 9 1/4&quot; - 11 1/4&quot;</td>
</tr>
</tbody>
</table>

Courtesy Western Pine Association
**Section B**

**Doors - Windows - Millwork**

**Floor & Wall Finishes**

---

**CABINET CONSTRUCTION**

**PLYWOOD EDGE TREATMENT**

- Thin veneer of facing material is applied to edge. Lower illustration is the most practical method as top ply protects veneer from wear and damage.

- Two types of stock moldings used to finish raw edges of plywood. Many other molding contours are available which are adaptable for this use.

- The mitered butt edging shown above is stronger than thin flat veneer. For extremely fine work the mitered inset shown below is excellent.

- Two methods of applying an inset facing between the plywood faces. Both are practical as they strengthen the edge of the plywood.

Where a heavy molding is used for edge facing the tongue and groove methods provide a practical solution. Square stock may be applied in this manner.

---

**CABINET JOINTS**

- Tongue and groove miter
- Feather miter joint
- Dowel miter joint

Three types of miter joints to be used where end grain would be objectionable.

**DRAWER SLIDES**

- Dado and rabbet joint
- Dado, tongue and rabbet
- Lock butt joint

Right angle joints used for drawer construction or other cabinet work where end grain is not objectionable. All joints may be cut on ordinary table saw.

---

*APRIL 1957*
### WOOD MOULDINGS—8000 SERIES

![Diagram of wood mouldings]

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Dimensions</th>
</tr>
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<tbody>
<tr>
<td>8061</td>
<td>1 1/2&quot; 1/4&quot;</td>
<td>11/16&quot; x 1 3/4&quot;</td>
</tr>
<tr>
<td>8063</td>
<td>1 1/2&quot; 1/2&quot;</td>
<td>1 3/4&quot; x 1 3/4&quot;</td>
</tr>
<tr>
<td>8065</td>
<td>1 1/2&quot; 3/4&quot;</td>
<td>1 3/4&quot; x 1 3/4&quot;</td>
</tr>
<tr>
<td>8067</td>
<td>1 1/2&quot; 1 1/2&quot;</td>
<td>1 3/4&quot; x 1 3/4&quot;</td>
</tr>
<tr>
<td>8069</td>
<td>1 1/2&quot; 2&quot;</td>
<td>1 3/4&quot; x 1 3/4&quot;</td>
</tr>
<tr>
<td>8071</td>
<td>1 1/2&quot; 2 1/2&quot;</td>
<td>1 3/4&quot; x 1 3/4&quot;</td>
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<td>8073</td>
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</tr>
<tr>
<td>8077</td>
<td>1 1/2&quot; 4&quot;</td>
<td>1 3/4&quot; x 1 3/4&quot;</td>
</tr>
<tr>
<td>8079</td>
<td>1 1/2&quot; 4 1/2&quot;</td>
<td>1 3/4&quot; x 1 3/4&quot;</td>
</tr>
<tr>
<td>8081</td>
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<td>1&quot; x 1 1/4&quot;</td>
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<td>8083</td>
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</tr>
<tr>
<td>8105</td>
<td>3/4&quot; 4 1/2&quot;</td>
<td>1&quot; x 1 1/4&quot;</td>
</tr>
</tbody>
</table>

*Courtesy Arkansas Soft Pine Bureau*
## Section B

Doors - Windows - Millwork

Floor & Wall Finishes

### Metal Trim Moldings

<table>
<thead>
<tr>
<th>Coving Moldings</th>
<th>Cap Moldings</th>
<th>Corners</th>
<th>Edgings</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Coving Moldings" /></td>
<td><img src="image2" alt="Cap Moldings" /></td>
<td><img src="image3" alt="Corners" /></td>
<td><img src="image4" alt="Edgings" /></td>
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</table>

<table>
<thead>
<tr>
<th>Angles</th>
<th>Nosings</th>
<th>Carpet Edgings</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5" alt="Angles" /></td>
<td><img src="image6" alt="Nosings" /></td>
<td><img src="image7" alt="Carpet Edgings" /></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Stair Nosings</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image8" alt="Stair Nosings" /></td>
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</tbody>
</table>
### HARDWOOD FLOORING DATA

#### STANDARD SIZES, COUNTS and WEIGHTS

"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.

### OAK

<table>
<thead>
<tr>
<th>Nominal</th>
<th>Actual</th>
<th>Counted</th>
<th>Weights M Fr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4 x 3/4 in.</td>
<td>3/4 x 3/4 in.</td>
<td>1 x 4 in.</td>
<td>2250 lbs.</td>
</tr>
<tr>
<td>3/4 x 1-1/2 in.</td>
<td>3/4 x 1-1/2 in.</td>
<td>1 x 3 in.</td>
<td>2000 lbs.</td>
</tr>
<tr>
<td>3/4 x 2 in.</td>
<td>3/4 x 2 in.</td>
<td>1 x 3 in.</td>
<td>2000 lbs.</td>
</tr>
<tr>
<td>3/4 x 3-1/4 in.</td>
<td>3/4 x 3-1/4 in.</td>
<td>1 x 3 in.</td>
<td>2000 lbs.</td>
</tr>
</tbody>
</table>

### BEECH, BIRCH, HARD MAPLE AND PECAN

<table>
<thead>
<tr>
<th>Nominal</th>
<th>Actual</th>
<th>Counted</th>
<th>Weights M Fr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4 x 3/4 in.</td>
<td>3/4 x 3/4 in.</td>
<td>1 x 4 in.</td>
<td>2250 lbs.</td>
</tr>
<tr>
<td>3/4 x 1-1/2 in.</td>
<td>3/4 x 1-1/2 in.</td>
<td>1 x 3 in.</td>
<td>2000 lbs.</td>
</tr>
<tr>
<td>3/4 x 2 in.</td>
<td>3/4 x 2 in.</td>
<td>1 x 3 in.</td>
<td>2000 lbs.</td>
</tr>
<tr>
<td>3/4 x 3-1/4 in.</td>
<td>3/4 x 3-1/4 in.</td>
<td>1 x 3 in.</td>
<td>2000 lbs.</td>
</tr>
</tbody>
</table>

#### SQUARE EDGE

<table>
<thead>
<tr>
<th>Nominal</th>
<th>Actual</th>
<th>Weights M Fr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/16 x 2 in.</td>
<td>5/16 x 2 in.</td>
<td>1200 lbs.</td>
</tr>
<tr>
<td>5/16 x 11/16 in.</td>
<td>5/16 x 11/16 in.</td>
<td>1200 lbs.</td>
</tr>
</tbody>
</table>

### SQUARED EDGE (TONGUE AND GROOVED-END MATCHED)

#### ESTIMATING FLOORING

**Figures below are board feet of various sizes of flooring required to cover square feet of floor space shown at left.**

#### COMPUTING FLOORING NEEDS

To ascertain the amount of hardwood flooring required for a room, first determine the area of the room by multiplying the width by the length. Then add one of the following percentages to that figure, depending upon the size of flooring you intend to use.

**Specialities**

- Joining and grooving flooring. To be blind-nailed.
- **Type**: 3/8" ft casing—nail — 4d wire or cut nail, or screw 3/8 x 1-1/2 in. into wood subfloor required.
- **Size**: 25/32 x 3-1/4 in. 25/32 x 2-1/4 in. 25/32 x 1-1/2 in.
- **Spacing**: 7d or 6d screw type or cut steel nails 10-12 in. apart. Wood subfloor required.

---

**NAIL SCHEDULE — OAK FLOORING**

**Face-nailed.**
- 5/16 x 2-1/4 in. 15 gauge fully barbed flooring | nailed, preferably cement coated. 2 nails every 5 in. apart. Wood subfloor required.

---

**SPECIAL THICKNESSES (T and G, END MATCHED)**

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Length</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8 x 2 in.</td>
<td>15/32 x 2 in.</td>
<td>1 x 2 in.</td>
</tr>
<tr>
<td>1/8 x 1 in.</td>
<td>15/32 x 2 in.</td>
<td>1 x 2 in.</td>
</tr>
<tr>
<td>1/8 x 1-1/2 in.</td>
<td>15/32 x 2 in.</td>
<td>1 x 2 in.</td>
</tr>
<tr>
<td>1/8 x 2 in.</td>
<td>15/32 x 2 in.</td>
<td>1 x 2 in.</td>
</tr>
</tbody>
</table>

---

**NOTE:** Oak, Beech, Birch, Hard Maple ad 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 4 ft. may be 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.

**Flooring shall not be considered of standard grade unless the lumber from which the flooring is manufactured has been properly kiln-dried.**

---

**ESTIMATING FLOORING**

**Figures below are board feet of various sizes of flooring required to cover square feet of floor space shown at left.**

**COMPUTING FLOORING NEEDS**

To ascertain the amount of hardwood flooring required for a room, first determine the area of the room by multiplying the width by the length. Then add one of the following percentages to that figure, depending upon the size of flooring you intend to use:

- 1/4 x 2 in. 13/32 x 2 in. 11/32 x 2 in. 13/32 x 1-1/2 in. 3/16 x 2 in.
- **Percentage**: 50% 37.5% 33.3% 25% 24%
Section B  Doors - Windows - Millwork
Floor & Wall Finishes

ESTIMATING RESILIENT TILE

### TABLE I  ACTUAL DIMENSION REQUIREMENTS
(Based on 9” x 9” units)

<table>
<thead>
<tr>
<th>LENGTH</th>
<th>TILE</th>
<th>LENGTH</th>
<th>TILE</th>
<th>LENGTH</th>
<th>TILE</th>
<th>LENGTH</th>
<th>TILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>9”</td>
<td>1</td>
<td>8-3”</td>
<td>11</td>
<td>15-9”</td>
<td>21</td>
<td>23-3”</td>
<td>31</td>
</tr>
<tr>
<td>1'-6”</td>
<td>2</td>
<td>9-0’</td>
<td>12</td>
<td>16-6”</td>
<td>22</td>
<td>24-0”</td>
<td>32</td>
</tr>
<tr>
<td>2'-3”</td>
<td>3</td>
<td>9-9”</td>
<td>13</td>
<td>17-3”</td>
<td>23</td>
<td>24-9”</td>
<td>33</td>
</tr>
<tr>
<td>3'-0”</td>
<td>4</td>
<td>10-6”</td>
<td>14</td>
<td>18-0”</td>
<td>24</td>
<td>25-6”</td>
<td>34</td>
</tr>
<tr>
<td>3'-9”</td>
<td>5</td>
<td>11-3”</td>
<td>15</td>
<td>18-9”</td>
<td>25</td>
<td>26-3”</td>
<td>35</td>
</tr>
<tr>
<td>4'-6”</td>
<td>6</td>
<td>12-0”</td>
<td>16</td>
<td>19-6”</td>
<td>26</td>
<td>27-0”</td>
<td>36</td>
</tr>
<tr>
<td>5'-3”</td>
<td>7</td>
<td>12-9”</td>
<td>17</td>
<td>20-3”</td>
<td>27</td>
<td>27-9”</td>
<td>37</td>
</tr>
<tr>
<td>6'-0”</td>
<td>8</td>
<td>13-6”</td>
<td>18</td>
<td>21-0”</td>
<td>28</td>
<td>28-6”</td>
<td>38</td>
</tr>
<tr>
<td>6'-9”</td>
<td>9</td>
<td>14-3”</td>
<td>19</td>
<td>21-9”</td>
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<td>22-6”</td>
<td>30</td>
<td>30-0”</td>
<td>40</td>
</tr>
</tbody>
</table>

### HOW TO USE THESE TABLES
Either of these tables may be used to ascertain the number of 9” x 9” resilient tile required for given areas. A typical example would be to find the number of tile required for a room 15” x 21”.

Using Table I
15” x 0” = 30 tile
21” x 0” = 54 Total number of tile required
28 x 30 = 840 Total tile required 561

Using Table II
15 x 21 = 315 sq. ft.
10 sq. ft. requires 18 tile
5 sq. ft. requires 9 tile
Total tile required 561

Note: Table II is based on mathematical factors which accounts for the slight difference. In all cases 2 percentage factor should be added to the total to allow for waste.

### PERCENTAGE FACTORS FOR WASTE

<table>
<thead>
<tr>
<th>NUMBER SQUARE FEET</th>
<th>ADD</th>
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<tbody>
<tr>
<td>1 to 50</td>
<td>14%</td>
</tr>
<tr>
<td>50 to 100</td>
<td>10%</td>
</tr>
<tr>
<td>100 to 200</td>
<td>8%</td>
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<td>200 to 300</td>
<td>7%</td>
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<td>300 to 500</td>
<td>6%</td>
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<tr>
<td>500 to 1000</td>
<td>5%</td>
</tr>
<tr>
<td>Over 1000</td>
<td>3%</td>
</tr>
</tbody>
</table>

### QUANTITIES OF TILE FOR FLOORING DESIGNS

- 36% 16% 48%
- 25% 25% 25%
- 26% 26% 48%
- 37% 38% 25%
- 10% 45% 45%
- 26% 74%
- 26% 48% 13% 13%
- 56% 44%
- 17% 17% 66%
- 34% 66%

APRIL 1957
Section B  Doors - Windows - Millwork  
Floor & Wall Finishes

**STEEL DOOR & JAMB STANDARDS**

**LEFT HAND**  **RIGHT HAND**  
FRAME WIDTH W

**TYPICAL SECTION**

**ALTERNATE JAMB PROFILE**

**FRAME ANCHORS TO BE IN ACCORDANCE WITH MANUFACTURERS' STANDARDS**

**ALTERNATE JAMB PROFILE**

**TYPICAL SECTION OF NARROW JAMB**

**SOLID PLASTER WALL**  (WIRE LATH CORE)

**SOLID PLASTER WALL**  (GYPSUM LATH CORE)

**DRY WALL**

**MASONRY WALL**  
**2" STUD WALL**

**STANDARD WIDTHS**

<table>
<thead>
<tr>
<th>1½&quot; Doors</th>
<th>1¾&quot; Doors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2'0&quot; x 6'8&quot;</td>
<td>2'6&quot; x 6'8&quot;</td>
</tr>
<tr>
<td>2'4&quot; x 6'8&quot;</td>
<td>2'8&quot; x 6'8&quot;</td>
</tr>
<tr>
<td>2'6&quot; x 6'8&quot;</td>
<td>3'0&quot; x 6'8&quot;</td>
</tr>
<tr>
<td>2'8&quot; x 6'8&quot;</td>
<td>3'0&quot; x 6'8&quot;</td>
</tr>
</tbody>
</table>

**FRAME WIDTH “W”**

**TYPICAL INSTALLATION DETAIL**

**HORIZONTAL SECTION**

**ALTERNATE FRAME PROFILE**

Courtesy Steel Door Institute

AMERICAN BUILDER
PLASTIC TILE STANDARDS

FIELD TILE

HALF TILE

TRIANGLE TILE

FEATURE TILE

COVE BASE CORNER TILE

COVE BASE TILE

COVE CORNER TILE

HALMARK

Polystyrene 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 by a negative tolerance of 1/10 of 1% or 0.005 in., whichever is greater, and by a positive tolerance of 3/10 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.

ESTIMATING AND DESIGNING FACTORS (Based on 4¼ x 4¼ Tile)

<table>
<thead>
<tr>
<th>LENGTH</th>
<th>NO. OF TIE</th>
<th>LENGTH</th>
<th>NO.</th>
<th>LENGTH</th>
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<th>LENGTH</th>
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<tr>
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<td>10</td>
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<tr>
<td>2½&quot;</td>
<td>7</td>
<td>17</td>
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<td>27</td>
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<td>18</td>
<td>8</td>
<td>28</td>
<td>9</td>
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<td>10</td>
<td>17</td>
<td>12</td>
<td>48</td>
<td>12</td>
</tr>
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<td>3½&quot;</td>
<td>9</td>
<td>19</td>
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<td>30</td>
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<td>40</td>
<td>11</td>
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<td>49</td>
<td>13</td>
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<tr>
<td>4&quot;</td>
<td>10</td>
<td>20</td>
<td>10</td>
<td>41</td>
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<td>50</td>
<td>13</td>
<td>19</td>
<td>19</td>
<td>50</td>
<td>15</td>
</tr>
</tbody>
</table>

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: Assume that a wainscot height of 4'-6" is desired and it is required to know the number of tiles necessary to approach this dimension. Checking the table it will be found that 13 tiles give a course height of 4'-5¾". If desired to hold close to the 54" dimension 12 full tiles may be finished with a half tile or cap of 3¾" giving a total height of 4'-5½".

2. Estimating tile quantities for a given area.

   Example: Length of wall in lineal feet—17'-0"

   Height of wall—5'-8"

   Number of tile in 17'-0"=48

   Number of tile in 5'/8"=16

   48 x 16=768 tiles required.

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 the total number of pieces required.

Courtesy The Society of Plastics Industry, Inc.

APRIL 1957
Natural ventilation and summer comfort can be “built into” the house by taking advantage of the prevailing breezes. To understand these advantages, it is necessary to understand the principles of air movement.

Air moves by differences in temperature or differences in pressure. Because warm air rises, air entering the room at a low point will continue to move if provision is made to exhaust it at a higher point.

Prevailing breezes striking a building create a high pressure area on the windward side, with a low pressure as it moves around the building. The wall on the high pressure side acts as a dam and forces the air through the open windows and through the house. On the low pressure side a vacuum is created and the flow through the house is increased. To speed this movement, the openings through which the air leaves should be larger.

A high pressure area is created when moving air strikes a building. Low pressure areas are created as the air moves over and around the structure.

Better ventilation can be achieved in rooms with cross ventilation by placing the windows as far apart as possible. Corner windows limit the flow of air as shown by the dotted arrow on this plan.

The movement of air through a building is caused by differences in pressure. Partitions divert and slow down the movement of air.

To get the maximum cooling advantages from air movement through a room it should be caused to flow across at the level of occupancy. If the type and location of the windows are such that they cause the air to flow along the ceiling the room can be uncomfortable. The location of the window in a wall depends upon its type. Some windows can deflect air downward and will achieve the same effect as those placed lower in the wall.

Obstacles in the path of moving air slow it down and have a tendency to divert its flow. Heavy shrubbery, fences and other obstructions should be eliminated if full advantage is to be obtained from prevailing breezes.
One large opening is more desirable than several small windows. Not only does the former provide a better distribution of light but dark areas between smaller openings are eliminated as well as undesirable contrasts in brightness.

Consideration should be given in the placing of windows so that sills and horizontal muntins or rails do not interfere with vision either seated or standing. The sketches show the eye-level range for persons sitting and standing. Avoid horizontal window divisions within these levels. Dimensions are based on persons from 5'-0" to 6'-4" tall as well as the usual window head and sill heights as determined by furniture.

Windows in more than one wall give more effective light distribution throughout the room. Strip or clerestory windows furnish light and ventilation with maximum privacy.

Window shapes may be selected to give any desired distribution of light within the room. This diagram shows graphically how the sun's rays entering a room at a 45° angle give various patterns of light depending upon the shape of the opening. The closer the head of the window is to the ceiling, the greater the depth of penetration, as shown in openings 1 and 2. Opening 3, placed lower in the wall creates a much shorter light pattern. Strip windows, opening 2, are desirable where it is preferable to have the area beneath in shadow such as a bedroom. This diagram also illustrates why it is desirable to use windows in more than one wall for better distribution of daylight.
<table>
<thead>
<tr>
<th>Profil Face Measurements</th>
<th>Stiles</th>
<th>Top Rail</th>
<th>Bottom Rail</th>
<th>Vertical Bar</th>
<th>Horizontal Bar</th>
<th>Check Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Lt.</td>
<td>16x16</td>
<td>20</td>
<td>24</td>
<td>16</td>
<td>18</td>
<td>24</td>
</tr>
<tr>
<td>3 Lt.</td>
<td>20</td>
<td>20</td>
<td>22</td>
<td>22</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>4 Lt.</td>
<td>26</td>
<td>28</td>
<td>28</td>
<td>26</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>5 Lt.</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
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<td>26</td>
</tr>
<tr>
<td>6 Lt.</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
</tr>
</tbody>
</table>

Windows are made 1/2 narrower and 1/8 shorter than window opening sizes shown below.

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.
### POPULAR WINDOW STANDARDS

#### CASEMENT SASH 1 1/2"

<table>
<thead>
<tr>
<th>Prefit Face Measurements</th>
<th>Stiles</th>
<th>Top Rail</th>
<th>Bottom Rail</th>
<th>Vertical Bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Lit.</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
<td>3/4&quot;</td>
<td>5/16&quot;</td>
</tr>
<tr>
<td>3 Lit. H.</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
<td>3/4&quot;</td>
<td>5/16&quot;</td>
</tr>
<tr>
<td>4 Lit. H.</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
<td>3/4&quot;</td>
<td>5/16&quot;</td>
</tr>
<tr>
<td>6 Lit. W.</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
<td>3/4&quot;</td>
<td>5/16&quot;</td>
</tr>
<tr>
<td>8 Lit. 2 W.</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
<td>3/4&quot;</td>
<td>5/16&quot;</td>
</tr>
</tbody>
</table>

Sash are made 1/4" narrower and 3/4" shorter than opening sizes given below.

<table>
<thead>
<tr>
<th>Sizes</th>
<th>1-3/4 x 2-2</th>
<th>2-4 x 2-4</th>
<th>2-9 x 2-9</th>
<th>3-1 x 2-1</th>
</tr>
</thead>
<tbody>
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<td>12 x 15/16&quot;</td>
<td>12 x 15/16&quot;</td>
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<tr>
<td></td>
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<td>12 x 15/16&quot;</td>
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</tbody>
</table>

#### STORM SASH and SCREENS 1 1/2"

<table>
<thead>
<tr>
<th>Prefit Face Measurements</th>
<th>Storm Sash</th>
<th>Screens</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Lit.</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
</tr>
<tr>
<td>3 Lit. H.</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
</tr>
<tr>
<td>4 Lit. H.</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
</tr>
<tr>
<td>6 Lit. W.</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
</tr>
<tr>
<td>8 Lit. 2 W.</td>
<td>15/16&quot;</td>
<td>15/16&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 1/2" and 1 3/4"

<table>
<thead>
<tr>
<th>Prefit Face Measurements</th>
<th>Storm Sash</th>
<th>Storm Sash</th>
<th>Storm Sash</th>
<th>Storm Sash</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Lit.</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
</tr>
<tr>
<td>3 Lit. H.</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
</tr>
<tr>
<td>4 Lit. H.</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
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<tr>
<td>6 Lit. W.</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
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#### PLAIN RAIL WINDOWS 1 1/2"

<table>
<thead>
<tr>
<th>Prefit Face Measurements</th>
<th>Storm Sash</th>
<th>Storm Sash</th>
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<tbody>
<tr>
<td>1 Lit.</td>
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<td>15/16&quot;</td>
<td>15/16&quot;</td>
</tr>
<tr>
<td>3 Lit. H.</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
<td>15/16&quot;</td>
</tr>
<tr>
<td>4 Lit. H.</td>
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<td>15/16&quot;</td>
<td>15/16&quot;</td>
</tr>
<tr>
<td>6 Lit. W.</td>
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<td>15/16&quot;</td>
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#### BARN or UTILITY SASH 1 1/2" and 1 3/4"

<table>
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<th>Prefit Face Measurements</th>
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<tbody>
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<tr>
<td>4 Lit. H.</td>
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<td>15/16&quot;</td>
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<td>6 Lit. W.</td>
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<table>
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<th>Sizes</th>
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<th>2-9 x 2-9</th>
<th>3-1 x 2-1</th>
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<td>12 x 15/16&quot;</td>
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</tbody>
</table>

#### APRIL 1957

B15
Section B  Doors - Windows - Millwork
Floor & Wall Finishes

### STEEL WINDOW STANDARDS (COMMERCIAL)

#### ARCHITECTURAL PROJ. WD.

<table>
<thead>
<tr>
<th>Window Size</th>
<th>Width</th>
<th>Height</th>
<th>Width</th>
<th>Height</th>
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<tbody>
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<td>2'-6&quot;</td>
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<td>2'-6&quot;</td>
<td>2'-10&quot;</td>
<td>2'-14&quot;</td>
</tr>
<tr>
<td>3'-4&quot;</td>
<td>3'-10&quot;</td>
<td>3'-6&quot;</td>
<td>3'-12&quot;</td>
<td>3'-18&quot;</td>
</tr>
<tr>
<td>4'-0&quot;</td>
<td>4'-4&quot;</td>
<td>4'-6&quot;</td>
<td>4'-8&quot;</td>
<td>4'-12&quot;</td>
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</table>

#### INTERMEDIATE PROJECTED WINDOWS

<table>
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<th>Width</th>
<th>Height</th>
<th>Width</th>
<th>Height</th>
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<td>2'-6&quot;</td>
<td>3'-4&quot;</td>
<td>2'-6&quot;</td>
<td>2'-10&quot;</td>
<td>2'-14&quot;</td>
</tr>
<tr>
<td>3'-4&quot;</td>
<td>3'-10&quot;</td>
<td>3'-6&quot;</td>
<td>3'-12&quot;</td>
<td>3'-18&quot;</td>
</tr>
<tr>
<td>4'-0&quot;</td>
<td>4'-4&quot;</td>
<td>4'-6&quot;</td>
<td>4'-8&quot;</td>
<td>4'-12&quot;</td>
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</tbody>
</table>

#### INTERMEDIATE COMBINATION WINDOWS

<table>
<thead>
<tr>
<th>Window Size</th>
<th>Width</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>2'-9&quot;</td>
<td>2'-6&quot;</td>
<td>2'-14&quot;</td>
</tr>
<tr>
<td>3'-4&quot;</td>
<td>3'-10&quot;</td>
<td>3'-18&quot;</td>
</tr>
<tr>
<td>4'-0&quot;</td>
<td>4'-4&quot;</td>
<td>4'-8&quot;</td>
</tr>
</tbody>
</table>

#### SYMBOLS

**WINDOWS VIEWED FROM OUTSIDE**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROJ OUT</td>
<td>Projected Outside</td>
</tr>
<tr>
<td>PROJ IN</td>
<td>Projected Inside</td>
</tr>
</tbody>
</table>

**INTERMEDIATE CASEMENTS**

<table>
<thead>
<tr>
<th>Window Size</th>
<th>Width</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>1'-0&quot;</td>
<td>1'-6&quot;</td>
<td>1'-12&quot;</td>
</tr>
<tr>
<td>2'-0&quot;</td>
<td>2'-4&quot;</td>
<td>2'-8&quot;</td>
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</tbody>
</table>

**NON-VENTILATING UNITS**

<table>
<thead>
<tr>
<th>Window Size</th>
<th>Width</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>2'-9&quot;</td>
<td>2'-10&quot;</td>
<td>2'-14&quot;</td>
</tr>
<tr>
<td>3'-4&quot;</td>
<td>3'-6&quot;</td>
<td>3'-10&quot;</td>
</tr>
<tr>
<td>4'-1&quot;</td>
<td>4'-4&quot;</td>
<td>4'-8&quot;</td>
</tr>
</tbody>
</table>

**Measurements shown are window opening dimensions.**

Shaded units are warehouse types and sizes. (Swing of vents only as indicated.)

Measurements shown are window opening dimensions.

PROJ OUT is architectural projected.

400 Series indicate architectural projected.

Fixed or stationary units may be supplied for all types shown.

All vents shown to project out may be made to project in, provided all vents in the same unit project in.

Shaded units are warehouse types and sizes.

Non-ventilation units are used with pivoted and commercial projected windows.

Measurements shown are opening dimensions.

**Courtesy of the Steel Window Institute**
### STEEL WINDOW STANDARDS (RESIDENTIAL)

#### STEEL CASEMENTS

- **2'-2"**
  - 1212
  - 2212
  - 3212
  - 4212
  - 5212
  - 6212

- **3'-23"**
  - 1313
  - 2313
  - 3313
  - 4313
  - 5313
  - 6313

- **4'-23"**
  - 1414
  - 2414
  - 3414
  - 4414
  - 5414
  - 6414

- **5'-3"**
  - 1515
  - 2515
  - 3515
  - 4515
  - 5515
  - 6515

- **6'-3"**
  - 1616
  - 2616
  - 3616
  - 4616
  - 5616
  - 6616

**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.**

#### BASEMENT WINDOWS

- **2'-6"**
  - 2512
  - 3512
  - 4512
  - 5512

- **3'-0"**
  - 3613
  - 4613
  - 5613

- **3'-9"**
  - 3714
  - 4714
  - 5714

- **4'-5"**
  - 4815
  - 5815

- **5'-1"**
  - 5916

**"B" TYPES**

- **3'-0"**
  - B3059
  - B3459
  - B3859

**"E" TYPES**

- **5'-9"**
  - E3051
  - E3451
  - E3851

**Dimensions shown are window dimensions.**

#### DOUBLE HUNG WINDOWS

- **3'-0"**
  - B2031
  - B2431
  - B2831
  - B3031
  - B3431

- **3'-9"**
  - B2039
  - B2439
  - B2839
  - B3039
  - B3439

- **4'-5"**
  - B2045
  - B2445
  - B2845
  - B3045
  - B3445
  - B3845

- **5'-1"**
  - B2051
  - B2451
  - B2851
  - B3051
  - B3451
  - B3851

**"B" TYPES**

- **3'-0"**
  - B3059
  - B3459
  - B3859

**"E" TYPES**

- **5'-9"**
  - E3051
  - E3451
  - E3851

**Dimensions shown are window dimensions.**

#### FIXED PANELS

- **3'-4"**
  - F3445
  - F4045
  - F4845

- **4'-0"**
  - F3451
  - F4051
  - F4851

- **4'-5"**
  - F3459
  - F4059
  - F4859

**Courtesy of the Steel Window Institute.**

---

*B17 APRIL 1957*
Section B

Doors - Windows - Millwork
Floor & Wall Finishes

ALUMINUM WINDOW STANDARDS (COMMERCIAL)

P-A2 PROJECTED WINDOWS for commercial and monumental-type buildings

All vents shown to project out may be made to project in, provided all vents in the same unit project in.

200 series indicates architectural projected.

400 series indicates intermediate projected.

Vertical muntins may be added to 200 and 400 series windows if desired, provided they are based on 20" or 24" bar centers.

Fixed types furnished for all sizes shown.

DOUBLE-HUNG WINDOWS (DH-A1, DH-A2, DH-A3)

for commercial and monumental-type buildings are also available. Consult manufacturers' catalogs for available sizes.

DH-A1 are double-hung (and single-hung) for residential-type buildings.

DH-A2 are double-hung (and single-and triple-hung) windows for commercial-type buildings.

DH-A3 are double-hung (and single-and triple-hung) windows for monumental-type buildings.

A-A2 AWNING WINDOWS for commercial and monumental-type buildings.

BASEMENT WINDOWS

Dimensions shown are window opening dimensions

C-A2 and C-A3 CASEMENT WINDOWS for commercial and monumental-type buildings

Horizontal and/or vertical muntins may be added if desired, provided they are based on 20" or 24" bar centers for width and 16" bar centers for height. Fixed light may be provided at sill in place of all vents.

Fixed types furnished for all sizes shown.
### ALUMINUM WINDOW STANDARDS (RESIDENTIAL)

#### A.W.M.A. STANDARD

<table>
<thead>
<tr>
<th>Size</th>
<th>2'-0&quot;</th>
<th>2'-6&quot;</th>
<th>3'-0&quot;</th>
<th>3'-4&quot;</th>
<th>4'-0&quot;</th>
<th>4'-4&quot;</th>
<th>4'-8&quot;</th>
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</tr>
</tbody>
</table>

#### 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.

#### WESTERN—TYPE X

<table>
<thead>
<tr>
<th>Size</th>
<th>2'-0&quot;</th>
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<th>3'-0&quot;</th>
<th>3'-4&quot;</th>
<th>4'-0&quot;</th>
<th>4'-4&quot;</th>
<th>4'-8&quot;</th>
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</table>

#### PICTURE OF PANORAMA WINDOWS

Most manufacturers of aluminum double-hung, casement, projected and awning windows offer picture or panorama windows in heights and widths that complement their standard sizes. These windows accommodate either 5/8" plate glass or 1" double glass of the "Thermopane" or "Twistow" type. See manufacturers' catalogs for available sizes.

#### WESTERN—TYPE XW

<table>
<thead>
<tr>
<th>Size</th>
<th>2'-0&quot;</th>
<th>2'-6&quot;</th>
<th>3'-0&quot;</th>
<th>3'-4&quot;</th>
<th>4'-0&quot;</th>
<th>4'-4&quot;</th>
<th>4'-8&quot;</th>
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Dimensions shown are window dimensions.

---

**STANDARD SIZES**

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<th>1'-7&quot;</th>
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<th>4'-5 1/2&quot;</th>
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<td>2'-3&quot;</td>
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**MODULAR SIZES**

<table>
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<tr>
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<th>2'-0&quot;</th>
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<tbody>
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<td></td>
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</tr>
<tr>
<td>2'-0&quot;</td>
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<td></td>
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</tr>
</tbody>
</table>

Dimensions shown are window dimensions.

---

**P-A1 PROJECTED WINDOWS**

For residential-type buildings.

Dimensions shown are window dimensions.

---

*Courtesy Aluminum Window Manufacturers Association*
Metal casings are made in sizes for \( \frac{3}{8} \), \( \frac{1}{2} \) and \( \frac{5}{8} \) boards.

Two types of square edge metal casings which are used to finish edge of wallboard at door jamb or window. Corners are butted and casing is nailed through board into stud. Knurled side affords good spackle adhesion.

Corner guard for protection to exterior corners applied directly over wallboard and nailed through flange. Nose is undercut to provide grip for spackle finish.

Round or square edge casings are nailed in place before board is applied. Corners are mitered. Inclined plane creates tension that draws board snugly into position.

Details
THE READY HUNG DOOR FAMILY

HINGED & BY-PASSING DOOR UNITS

Install complete in 20 minutes

Split Jamb fits walls from 4%" to 51/2"

Assures better material and workmanship—machine uniformity

HINGED Door Units
- 17/8" doors in any standard size, style or specie
- Trim patterns popular in your area
- Special fasteners keep mitres tight
- Shipped fully assembled

BY-PASSING Door Units
- TWO POINT BOLT SUSPENSION® of the track assures TROUBLE FREE operation:
  - Eliminates troubles from bent tracks
  - Loosening of screws holding track
- No blocking to rough header—saves time
- All construction features of hinged unit
  †Patent Pending

PACKAGED® FOR DELIVERY WITH JOINTS SQUARE AND TIGHT

Tension in the steel band exerts equalised pressure (indicated by the arrows) at the corners to draw the frame in tight contact with the rigid door. Frame joints and mitres are therefore rigidly held square and tight by the door itself.

†Patent No. 2489020

CALL YOUR LUMBER DEALER

ALBANY, N. Y. Frasen Millwork Corp.
Baltimore, Md. Centex Building Supply, Inc.
Somerville 4, Mass.
Buffalo, N. Y. Premier Door Co.

CHICAGO, ILL.
Morgan Sash & Door Co.

CINCINNATI, OHIO
Acme Sash & Door Co.

CLEVELAND, OHIO
The Whitman-Jackson Co.

DAYTON, OHIO
The Whitman-Jackson Co., Inc.

DENVER, COLO.
Morgan Sash & Door Co.

DENVER, COLO.
Lumber Dealers, Inc.

GRAND RAPIDS, MICH.
Port Huron Door Co.

HUNTINGTON, W. VA.
Iron City Sash & Door Co.

HOUSTON, TEXAS
Southwest Sash & Door Co.

INDIANAPOLIS, IND.
Midland Building Industries, Inc.

OAKLAND, CALIF.
Ready Hung Door Mfg. Co.

LOS ANGELES, CALIF.
Ready Hung Door Mfg. Co.

PITTSBURGH, PENN.
Irish City Sash & Door Co.

ROCHESTER, N. Y.
The Whitman-Jackson Co., Inc.

SAGINAW, MICH.
New Sash & Door Co., Inc.

SAN ANTONIO, TEXAS
Ready Hung Door Mfg. Co.

SEATTLE, WASH.
Acme Millwork, Inc.

SIOUX FALLS, S. DAK.
Jordan Millwork Co.

SPRINGFIELD, Mo.
Southern Supply Company

ST. LOUIS, Mo.
Irwin-Schilling Sash & Door Co.

ST. PAUL, MINN.
Minnesota Wood Specialties, Inc.

SYRACUSE, N. Y.
Frasen Door Co.

TOLEDO, OHIO
Allen A. Smith Co.

TORONTO, CANADA
C. Lloyd & Son Limited

WASHINGTON, D. C.
Frank Stevens Sash & Door Co.

READY HUNG DOOR CORP., FORT WORTH, TEXAS
IT TAKES A HEAP OF WINDOWS
TO MAKE A HOUSE A HOME
FOR VARIETY AND VERSATILITY... SEE CECO

Monotony in building design, you'll agree, makes homes more difficult to sell. Individual dwellings or housing developments need variety—especially in window selection—to lure prospects. And you'll find that Ceco, with the world's widest line of steel and aluminum windows, gives you irresistible customer-bait...no matter where you operate.

- What window styles are in greatest demand in Texas?—In California? What windows are most popular with home-buyers in New England—the Deep South—the Middle West—the northern tier of states? Ceco gives you the types and sizes you want. Ceco knows how to engineer windows to save you installation time. So, for better home building profits, better use Ceco Windows.

CECO STEEL PRODUCTS CORPORATION
Offices, warehouses and fabricating plants in principal cities

General Offices: 5601 West 26th Street, Chicago 50, Illinois
CECO STEEL
AMERICA'S WIDEST LINE OF STEEL AND ALUMINUM WINDOWS AND SCREENS
NEW MAN-MADE SUCCESSOR TO LUMBER

No grain to warp or twist  Fights paint blistering
Reversible weather drip edges  Primed ... for quick finish painting
Easy to saw, easy to nail  No knots, splits or splintering

INSULITE PRIMED SIDING

Open this fold out—read the whole story. ☼
Wide-width Insulite Lap Siding, with 10 1/2" exposure, goes beautifully with any style or design. Half inch thickness provides deep, beautiful shadow lines that accentuate the "long, low look" so popular in contemporary homes. Long lengths—8', 12' and 16'—mean less handling and waste. Vertical grooved panels on gable ends add a beautiful architectural touch. Grooved panels have shiplapped edges for concealed joints.

Builders, dealers, architects and home owners all get extra value and extra satisfaction with new Insulite Primed Siding.

**Builders** cut painting costs; handle uniform, straight pieces; speed up application; reduce waste; eliminate callbacks, repairs.

**Dealers** handle a clean, compact, packaged product... uniform, precision milled. No short lengths.

**Architects** have, in Insulite Primed Siding, a uniform, dependable, highly flexible finishing system that's ideal for any design value, durability, longevity you expect. The sooner you can start using Insulite Primed Siding, the greater your bottom line value.

Home Owners appreciate the speed, convenience, and beauty of Insulite Primed Siding. Write for full information you want, mail today for free folders and literature.
No more paint blistering?

In laboratory tests, in field tests...
*Insulite Primed Siding has not blistered!*

*Floation test* apparatus used in our research laboratory measures the paint-blister-resistance of woods, hardboards, and Insulite Primed Siding. The sample in foreground is wood, painted two coats. The sample at back is Insulite Primed Siding, painted one coat. Both have been subjected to same moisture-forcing treatment. Notice how paint on one specimen has bubbled, blistered and completely failed while paint on Insulite Primed Siding shows no blistering or damage whatever.

Ten design treatments made possible by Insulite Primed 4' x 8' panels are trim and handsome. Grooved panels, too, are distinctive sidewalls. Grooves are 7/16" wide, spaced 8" fully prime coated for fast finish painting. Many other Insulite Primed Siding include light commercial buildings, porch ceilings, and soffits.

Flexible material for a wide variety of residential designs.

Appreciate Insulite Primed Siding for its durability, low maintenance cost, and resistance...

You can start planning with new Insulite Primed -- know your benefits will be. For the special information mail the coupon at right... *today!*

*Test homes* at International Falls, Minnesota, built with Insulite Primed Siding, have now been weathered for three full years. Photo above shows exterior view taken this winter of typical home. Here, where winter temperatures reach 35° below, summer heat soars above 100°, there is today no trace of paint blistering on Insulite Primed Siding!
NEW INSULITE PRIMED SIDING

New 12” Wide Lap Siding
New 4’ x 8’ Panels (plain and vertical grooved)

Goes on easier and faster!
Here's what makes this siding revolutionary!

**What it is:** Insulite Primed Siding is a new wood fiber material, made on a new $1,500,000,000 machine. It is 1/2" thick, looks like wood, works like wood, yet has no structural nor surface grain. Comes in 8', 12' and 16' lengths for lap siding, and 4' x 8' panels, plain or vertical grooved.

**Five years of research,** and laboratory and field testing, have insured the performance characteristics of Insulite Primed Siding.

**Cuts painting costs.** Insulite Primed Siding is prime coated on face, edges and ends; and back primed. Every piece is ready for quick finish painting on the job. Grooves in vertical panels are fully primed. Insulite Siding can be painted soon after wet weather.

**No knots—no splintering.** Considerable waste and expense are eliminated because Insulite Primed Siding has no knots, will not split or splinter.

**Easy to saw—easy to work.** With handsaw or power saw, Insulite Primed Siding cuts quick, clean. It nails like wood. Nails set easily.

**New wide widths.** Twelve-inch wide siding—now difficult to obtain in lumber—creates stylish exteriors. All Insulite widths and lengths are full measure.

**Reversible weather drip edges.** Both long edges of Insulite Lap Siding are precisely cut at an angle to make water drip straight down instead of flowing inward to the wall.

---

**build better and save with INSULITE**

**Insulite Division of Minnesota and Ontario Paper Company, Minneapolis 2, Minnesota**

---

**Mail this coupon today**

INSULITE
500 Investors Bldg.
Minneapolis 2, Minnesota

Please send literature and more detailed information about Insulite Primed Siding.

Name__________________________

Company Name__________________

Address________________________

City__________________County______State______
Protection plus . . . Winter Seal’s unexcelled engineering, fabricating and finishing know-how . . . outstanding record of nation-wide service . . . national advertising . . . all add up to extra sales, customer satisfaction and goodwill.

Winter Seal’s outstanding line of extruded aluminum windows and doors is available in three ways: assembled, KD or lineal extrusions.

- Aluminum combination windows—two or three track
- Jalousie windows and doors
- Horizontal sliding prime windows
- Aluminum combination doors—Deluxe—Economy—Round-Top
- Casement storms and screens

MAKE YOUR OWN STORM AND SCREEN PANELS FROM OUR LINEAL STOCK

WINTER SEAL CORPORATION • DETROIT 27, MICHIGAN
WINTER SEAL OF CANADA • TORONTO 15
Gentlemen,

I am interested in receiving colorful brochures on the Winter Seal line.

Name______________________________

Address______________________________

City and State______________________________

Type of Business______________________________
You Sell More!

VISA DOR

doors lights and louvers

add much to the appearance—
little to the cost of flush doors.

The installation of prefabricated door-light and louver inserts opens up entirely new possibilities for door sales. Custom designs can be easily furnished along with more standard designs. Economical installation costs add to your profits. Quality lights and louvers add to your reputation. Nationally-advertised VISA DOR products add to your repeat-sales. They all add up to the fact that YOU SELL MORE . . . with VISADOR!

Just a few of hundreds of designs possible. Write for beautiful V-78 Catalog for other designs, and for the complete Visador story.

VISADOR ROUTER makes
installation a quick, easy
job. Designed for convenience and versatility. Cuts holes in hollow or solid-core doors in minutes. Write for further information and prices.

The VISADOR Co.
P.O. Box 10312 • Dallas, Texas

3 Houses or 300...
put this profit protection into every one you build

Size of your operation doesn’t vary the importance of making full profit on each unit.

Call-backs and replacements due to leaks, rattles, and scrapes in windows and sliding glass doors steal your profits, can’t possibly earn income.

Protect yourself by specifying fenestration equipped with Schlegel Certified Woven Pile. Schlegel wool pile weatherseal assemblies are engineered to work perfectly on the units for which they are designed.

Sliding doors and windows with Schlegel Woven Pile are leaders on the market. They’re available in almost any type to meet your plans. Make sure of positive weather protection. Request Schlegel wool pile assemblies, preferred and used by quality manufacturers throughout the window and door industry.

Dense, flexible tufts of tough wool prevent air from filtering in or out, keep dust out, cushion against rattles, scraping.

Industrial Textiles Since 1885

Schlegel Manufacturing Company
ROCHESTER 7, N.Y. and OAKVILLE, ONT., CANADA
EXCLUSIVE PANEL-LOK assures stronger, invisible joints!

New Multicolor STRYPANEL

Puts more SELL into your new homes

Is ideal for Home, Institution and Store remodelling.

Strypanel is the only plastic wall panel available in radiant duo-tones. Easy-to-apply it offers unusual decorative effects achievable in no other way. Leading architects and decorators are most enthusiastic over Strypanel. Many have already specified its use in new office buildings, hotel modernization programs and homes. In every instance, colorful glowing Strypanel draws enthusiastic approval of all who see it.

You save by applying Strypanel right over Concrete Block!

No other permanent wall covering offers this material and labor saving advantage. No furring strips are needed. Merely apply right on block—above or below grade. Perfectly smooth finish every time.

Send For FREE STRYPANEL Samples and Literature Today!

Pioneers in the Plastic Tile Industry
CERMAK TILE COMPANY, INC.
4901 Brookpark Rd. • Cleveland 29, Ohio

- Tough, high-impact styrene will not chip, crack or craze.
- 12 popular color combinations as modern as tomorrow.
- Fast, clean and easy application.
- Complete line of matching trims; Small Cap, Large Cap, Inside Corner, Outside Corner, Divider Bar.
- Standard panel lengths are 43/4' and 8'. Special lengths available for quantity orders.
- Exclusive PANEL-LOK for greater strength. Similar to wood paneling construction.
You know you're RIGHT when you specify Oak Floors
Almost everybody wants

You never risk buyer objections with the floor that makes decorating easier

Oak Floors—and only Oak Floors—harmonize perfectly with all furnishings, all colors. That's very important in new home sales.

Room arrangement, color scheme and floors...these are the main elements a prospective buyer considers in judging the interior of a home. If the floors are Oak, she'll never question whether her furniture will be appropriate. Oak Floors, always in style, make decorating easier.

A builder can guess wrong on a lot of things that affect sales. But you always can be sure of buyer-approval for beautiful, durable, preferred Oak Floors. No other building material has such overwhelming acceptance...at a price every home buyer can afford.

National Oak Flooring Manufacturers' Association
814 Sterick Building, Memphis 3, Tenn.
NEW PRODUCTS

“PUSH-BUTTON” ELECTRIC STAIRWAY

Fully automatic... Smooth operating, quiet. It’s big, wide and beautiful. Eight inch treads. Precision engineered to last a lifetime and to give trouble-free operation. Complete new design. Many new uses!

NEW!

NEW!
Completely assembled Closet Front—Just set in place. Doors operate on strong aluminum track (top & bottom). Nylon pivot bearings and guides for quiet lifetime service.

NEW!
SUPER DELUXE folding STAIRWAY
The ultimate in folding stairways as only PRECISION makes them. Bigger, sturdier. Wide treads. Hydraulic safety checks for easy, efficient operation.

For complete information on these NEW PRODUCTS write

PRECISION PARTS CORPORATION
400 North First Street
Nashville 7, Tennessee
Manufacturers of America’s most complete line of Stairways
For high quality, low cost, fast delivery, get

LUPTON

ALUMINUM SLIDING DOORS / METAL WINDOWS
A New Budget-Priced Aluminum Sliding Door featuring...

WEATHER-TIGHT CONSTRUCTION—Woven pile, double row weatherstrip provides resilient, long-lasting seal on all sides of movable sash.

SMOOTH, QUIET OPERATION—Doors operate on quiet rollers with bronze self-lubricating bearings.

ADJUSTABLE ROLLERS—Special door design allows for leveling adjustment at installation.

LOW-SLOPED THRESHOLD eliminates danger of tripping. Keeps water out. Made of heavy extruded aluminum.

HARDWARE—Tight-locking bronze latch is simple to operate. Standard pull-handle is extruded aluminum, 8" long. Decorative Lucite handle (available at extra cost).

STRENGTH—Specially designed Flynn extruded aluminum members make Lupton Sliding Door units strong and rigid.

SCREENS—(Furnished at extra cost when specified). Heavy duty aluminum sliding screens make doors practical for use anywhere. Equipped with flexible closure strips, locking latch, and interior and exterior pulls.

TYPES AND SIZES OF LUPTON ALUMINUM SLIDING DOORS

A
Viewed from outside, panel slides to right. If specified, can be obtained with panel sliding to left.

B
Viewed from outside, panel slides to right.

C
Viewed from outside.

<table>
<thead>
<tr>
<th>Door Type</th>
<th>Over-all Width</th>
<th>Stud Opening Width</th>
<th>Glass Sizes (Inches)</th>
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</thead>
<tbody>
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<td></td>
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</tr>
<tr>
<td>Type XI</td>
<td>6'-0&quot;</td>
<td>6'-0½&quot;</td>
<td>2 @ 34 x 76</td>
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<tr>
<td>Type XI</td>
<td>6'-0½&quot;</td>
<td>6'-0¾&quot;</td>
<td>2 @ 46 x 76</td>
</tr>
<tr>
<td>Type XI</td>
<td>6'-0¾&quot;</td>
<td>6'-0&quot;</td>
<td>2 @ 58 x 76</td>
</tr>
</tbody>
</table>

<table>
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<th>Door Type</th>
<th>Over-all Width</th>
<th>Stud Opening Width</th>
<th>Glass Sizes (Inches)</th>
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<tr>
<td>Type IX</td>
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<td>9'-1½&quot;</td>
<td>2 @ 34, 1 @ 36 x 76</td>
</tr>
<tr>
<td>Type IX</td>
<td>9'-1½&quot;</td>
<td>9'-2½&quot;</td>
<td>2 @ 46, 1 @ 48 x 76</td>
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<tr>
<td>Type IX</td>
<td>9'-2½&quot;</td>
<td>9'-3½&quot;</td>
<td>2 @ 58, 1 @ 60 x 76</td>
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<table>
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<th>Door Type</th>
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<td>Type IX</td>
<td>11'-1½&quot;</td>
<td>12'-0&quot;</td>
<td>4 @ 34 x 76</td>
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<td>Type IX</td>
<td>12'-0&quot;</td>
<td>15'-0&quot;</td>
<td>4 @ 46 x 76</td>
</tr>
<tr>
<td>Type IX</td>
<td>15'-0&quot;</td>
<td>19'-0&quot;</td>
<td>4 @ 58 x 76</td>
</tr>
</tbody>
</table>

HEIGHT FOR ALL DOORS: 6'-9½" OVER-ALL. RECOMMENDED STUD OPENING HEIGHT: 6'-9½".
Lower Cost . . . Faster Delivery.

LUPTON
METAL WINDOWS from STOCK

The Lupton windows in the stock types and sizes shown on this page offer builders lower cost, faster delivery. Lupton windows are a finished product, engineered and made to give satisfactory service during the entire life of the building.

Double-Hung Windows

<table>
<thead>
<tr>
<th>Type A</th>
<th>Type B</th>
<th>Type E</th>
<th>Type EA</th>
</tr>
</thead>
</table>

Frame and sash members are accurate extrusions of high strength aluminum alloy. Weather stripping is stainless steel. Balances are completely concealed, yet accessible. Sash floats between guides of stainless steel, continuous from head to sill, eliminating window rattle.

Residence Casements (muntin variations)

Both fixed and ventilated units are available at no extra cost with any or all muntins omitted. Any remaining muntins must be in standard locations.

Lupton Casements provide maximum glass area, superior ventilation. They are weather-tight, easy to operate, easily and safely cleaned.

NEW Aluminum Framed Glass Jalousie Window

(Not shown) Year 'round comfort. The NEW Lupton Jalousie is an all-season window. Storm panel or screen can be snapped to the frame when required.

Ranch Windows

Corners of frames and ventilators are mitered and electrically welded. Ventilators are hinged at top and open outward. Drip bars are included for all ventilators. Steel Ranch Windows are bonderized and painted. Aluminum Windows are etched and lacquered.
SALES OFFICES AND PARTIAL LIST OF SALES REPRESENTATIVES

ALABAMA, Birmingham
VIRGINIA STEEL COMPANY, INC.

ARIZONA, Phoenix
WHOLESALERS, INC.

ARKANSAS, Little Rock
AMERICAN METAL WINDOW COMPANY

CALIFORNIA
Los Angeles
MICHAEL FLYNN MANUFACTURING COMPANY
Pasadena
LEE AND DANIEL, INC.
National City
NALCO (CAL) DISTRIBUTORS, INC.
Stockton
MICHAEL FLYNN MANUFACTURING COMPANY

DELAWARE, Wilmington
JANDY, INC.

DISTRICT OF COLUMBIA, Washington
CUSHWA BRICK AND BUILDING SUPPLY COMPANY

FLORIDA, Jacksonville
AICHEL STEEL AND SUPPLY CO

GEORGIA, Atlanta
HARRY TAYLOR AND SON

ILLINOIS, Chicago
W. L. VAN DAME COMPANY

INDIANA
Fort Wayne
MOSS ENGINEERING COMPANY
Indianapolis
BARRISON AND CLARKE, INC.

KANSAS, Topeka and Wichita
BASH AND THOMSON, INC.

KENTUCKY
Covington and Erlanger
TATE BUILDERS SUPPLY COMPANY, INC.
Louisville
JOHN W. BISHOP

LOUISIANA
Alexandria
FLYNN BUILDING SPECIALTIES, INC.
New Orleans
FAVROT AND PIERSON
Shreveport
AMERICAN METAL WINDOW COMPANY

MAINE, Portland
METAL BUILDING SPECIALTIES CO.

MARYLAND, Baltimore
MORRIS STEEL PRODUCTS CO.

MASSACHUSETTS
Arlington
BOSTON SCREEN AND SASH COMPANY
Springfield
GENERAL BUILDING PRODUCTS COMPANY
Worcester
GENERAL BUILDING PRODUCTS COMPANY

MICHIGAN
Detroit
CLYDE BICKEL COMPANY
Grand Rapids
STEEL BROTHERS AND TODD FUEL COMPANY

MINNESOTA, Minneapolis
JAMES C. NYSTROM

MISSISSIPPI, Jackson
C. A. MOORER

MISSOURI
St. Louis
MORGAN-WIGHTMAN SUPPLY COMPANY
St. Louis
SHAFIELD STEEL PRODUCTS CO.

NEBRASKA, Omaha
EASTON AND VIERLING STEEL COMPANY

NEW JERSEY, Newark
FIREPROOF PRODUCTS COMPANY

NEW YORK
Farmingdale, L.I.
KAPERN STEEL PRODUCTS COMPANY
New York
FIREPROOF PRODUCTS COMPANY, INC.
Astoria, L. I.
GEORGE GAILLARD

NORTH CAROLINA, Charlotte
R. J. LOCK STEEL PRODUCTS CORP.

OHIO
Cleveland & Akron
MOORE AND GLASS, INC.
Columbus
HOWARD S. STERNER COMPANY
Toledo
MAYFAIR LUMBER AND SUPPLY COMPANY

OKLAHOMA, Oklahoma City
ALLIED HARDWARE AND SUPPLY CO.

OREGON, Portland
MERCER STEEL COMPANY, INC.

PENNSYLVANIA
Doylestown
H. SHAKESPEARE AND SONS
Lancaster
CHARLES E. JOHNSON
Pepper Pike
ORRIN E. PALMER
Philadelphia
PEIRCE-PHELPS, INC.
Pittsburgh
TOM BROWN, INC.
Reading
BERKS BUILDING BLOCK CORP.
Scranton
ANTHRACITE BRIDGE COMPANY

RHODE ISLAND, Providence
GENERAL BUILDING PRODUCTS COMPANY

SOUTH CAROLINA, Columbia
KLINE IRON AND METAL COMPANY

TENNESSEE
Memphis
ALUMINUM DISTRIBUTORS, INC.
Nashville
VOLUNTEER STRUCTURES, INC.
Knoxville
DEALERS WAREHOUSE CORPORATION

TEXAS
Dallas
AMERICAN METAL WINDOW COMPANY
El Paso
ELECTRICAL AND MECHANICAL SUPPLY COMPANY, INC.
Houston
MICHAEL FLYNN MANUFACTURING CO. OF TEXAS (B. C. Brady, Jr.)

UTAH, Salt Lake City
BUEHNER BLOCK COMPANY

VIRGINIA
Bristol
CENTRAL WAREHOUSE CORPORATION
Richmond
VIRGINIA STEEL COMPANY, INC.

WEST VIRGINIA, Charleston
FIREPROOF PRODUCTS COMPANY

WISCONSIN, West Allis
VICTORY STEEL SUPPLY COMPANY

MICHAEL FLYNN MANUFACTURING COMPANY
MAIN OFFICE AND PLANT: 700 EAST GODFREY AVENUE, PHILADELPHIA 24, PENNA.

LUPTON
METAL WINDOWS AND CURTAIN-WALLS

NEW YORK OFFICE
51 East 42nd Street, New York 17, N. Y.

LOS ANGELES OFFICE AND WAREHOUSE
672 South Lafayette Park Place, Los Angeles 57, Cal.

STOCKTON OFFICE AND WAREHOUSE
1441 Fremont Street, Stockton, Cal.

SALES OFFICES AND REPRESENTATIVES IN PRINCIPAL CITIES
HOMEBUYERS LOOK FOR THAT EXTRA
"Quality Touch"

Why does one home sell faster than another? Many reasons, yes... but basically it's the home with an extra touch of quality that sells first. Alsynite translucent fiberglass panels can give your homes that extra quality sparkle in beauty and practical advantages... for patios, fences or windbreaks outside... partitions, light fixtures inside. And genuine Alsynite offers the matchless benefits of heat-blocking Filtron 25 and armor-plate Chemiglazed surface.

ALSYNITE COMPANY OF AMERICA
Dept. X-4 - San Diego 9, California

Give me full details on "Merchandising with Alsynite"

NAME ____________________________
COMPANY __________________________
ADDRESS __________________________
CITY _______ STATE ________________

PLANTS IN CALIFORNIA, OHIO, NEW JERSEY. DISTRIBUTORS IN PRINCIPAL CITIES
All flush doors may look alike... but these 9 reasons prove why America's Finest doors are Paine REZO FLUSH DOORS

These nine production photographs show the time... craftsmanship, precision, care... and highly specialized equipment required for the manufacture of Paine Rezo Doors. Backed by over a century of woodworking experience and more than nine million installations, it's no wonder architects, dealers, builders—and home owners—call Rezo Doors America's finest doors!

For information, write:

PAINE LUMBER COMPANY, LTD.
ESTABLISHED 1853 • OSHKOSH, WIS.

1 All lumber kiln-dried to specific, and uniform moisture content.

2 Stiles and rails securely fitted. Stiles are 1 5/8" instead of 1 3/4".

3 Hand-matched face veneers; the panels 1/8" thick—instead of 5/32".

4 A complete coating of resin glue is applied by machine.

5 Accurate assembly is assured by controlled heat and pressure.

6 Doors pass through a complete conditioning cycle in special kilns.

7 Doors are carefully belt-sanded to a cabinetmaker's finish.

8 Special doors are custom-made by experienced craftsmen.

9 Each door must be painstakingly inspected in oblique light.

AMERICAN BUILDER
USF “Wooster” Metal Doors and Frames are engineered and built on precision tooling to the highest quality standards in the industry. The basic door standard is a flush panel design which is adaptable to all of the variations listed above. The “Wooster” 1 3/4” Door was the first in the industry to receive the UL B-label.

Standardized in sizes and design and precision-made to closest tolerances—you can hang one or a thousand and they all go in with the same major labor-saving. To build recognizable extra quality into your construction and profit from realistic labor-savings... plan your next job with USF “Wooster” Metal Doors and Frames.

United Steel Fabricators, INCORPORATED
Wooster, Ohio
When there's work to be done, and mother's "done in", children can grate on nerves. But you can come to the rescue—by installing WRIGHT flooring. Completely comfortable underfoot... wonderfully sound-softening, WRIGHT flooring helps reduce 4 o'clock "drag" in any home. And WRIGHT's striking colors and rich-looking patterns have instant appeal for homemakers. WRIGHT is the perfect choice in flooring for every home. Consider it for your next project.
Qualitybilt Casements emphasize modern, narrow lines, fine hardware and accessories. Check these outstanding features:

**NARROW LINE MULLIONS**
A heavy, cross-shaped aluminum extrusion is expertly combined with the wood mullion to give great strength and rigidity, yet allow a slender appearance. Bulkiness is eliminated.

**EXTENSION HINGES**
Permit easy, quick cleaning from inside of building.

**DOUBLE GLAZE PANEL**
Attaches to inside with clips, forms an integral part of sash for year 'round insulation. Easily removed and replaced for cleaning.

**INSULATING GLASS**
Hermetically sealed air space eliminates the need of double glazing panels. Meets all insulating and air-conditioning requirements. Cuts window cleaning time in half.

**OPERATOR**
Powerful worm and gear operator holds sash in any desired position, operates without interfering with screen.

**SASH LOCK**
Pick-up closing action. Forcibly ejects sash slightly when opening. Operates without interfering with screen.

**SELECT YOUR CHOICE OF GLAZING**
Casements are supplied with three types of glazing.
1. Horizontal lights as shown, glazed standard window glass. (Double glazing panels optional.)
2. One light sash, glazed standard window glass. (Double glazing panels optional.)
3. One light sash, glazed with insulating glass. (Double glazing panels not required.)

**PICTURE WINDOWS**
Can be furnished in many sizes with plate or insulating glass to combine with casements. Standard frame parts are used for picture windows with or without casement flankers.

**COMPLETE CATALOG**
See complete catalog in Sweet's 1957 Architectural and Light Construction Files or write us for catalog and name of nearest distributor.

-----

**STANDARD UNITS**

**NARROW SERIES—SH. OPG. 1-6¾ WIDE**

<table>
<thead>
<tr>
<th>Frame</th>
<th>Glazed Sash</th>
<th>Inside Stops</th>
<th>Mullion Casings</th>
<th>Weatherstrip</th>
<th>Complete Hardware and Screens</th>
</tr>
</thead>
<tbody>
<tr>
<td>N1</td>
<td>N2</td>
<td>N3</td>
<td>N4</td>
<td>N5</td>
<td>N6</td>
</tr>
<tr>
<td>N22</td>
<td>N23</td>
<td>N24</td>
<td>N25</td>
<td>N26</td>
<td>N27</td>
</tr>
</tbody>
</table>

**WIDE SERIES—SH. OPG. 1-11¼ WIDE**

<table>
<thead>
<tr>
<th>Frame</th>
<th>Glazed Sash</th>
<th>Inside Stops</th>
<th>Mullion Casings</th>
<th>Weatherstrip</th>
<th>Complete Hardware and Screens</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1</td>
<td>W2</td>
<td>W3</td>
<td>W4</td>
<td>W5</td>
<td>W6</td>
</tr>
<tr>
<td>W22</td>
<td>W23</td>
<td>W24</td>
<td>W25</td>
<td>W26</td>
<td>W27</td>
</tr>
</tbody>
</table>

(Unit numbers indicate size of unit only, not the type of glazing.)

**COMPLETE UNIT INCLUDES:**
Frame, Glazed Sash, Inside Stops, Mullion Casings, Weatherstrip, complete Hardware and Screens. (Double Glazing Panels optional.) Frames and Glazed Sash accurately prefitted to size, weatherstrip applied. Sash may be installed Operative or Stationary.

**1 LIGHT GLASS SIZES**

<table>
<thead>
<tr>
<th>Standard</th>
<th>Insulating Glass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narrow Series</td>
<td>Wide Series</td>
</tr>
<tr>
<td>16 x 23</td>
<td>20½ x 23</td>
</tr>
<tr>
<td>16 x 29½</td>
<td>20½ x 29½</td>
</tr>
<tr>
<td>16 x 35½</td>
<td>20½ x 35½</td>
</tr>
<tr>
<td>16 x 47½</td>
<td>20½ x 47½</td>
</tr>
<tr>
<td>16 x 59½</td>
<td>20½ x 59½</td>
</tr>
</tbody>
</table>
**M-D Numetal WEATHER STRIP FOR DOORS**

Automatically to clear carpet easily when door opens.

**M-D NaGARD AUTOMATIC DOOR BOTTOM**

Snugly against floor to seal out drafts when door closes.

Here's the perfect automatic door bottom and draft eliminator for ALL doors. Easily installed on right or left hand door. Smartly designed with silver-satin finish—will not rust or tarnish. Furnished in standard lengths—28”, 32”, 36”, 42”, and 48”. Packed in individual cartons.

**M-D PACKAGED SETS FOR DOORS**

This complete package unit means easier handling for you... easier installation for your customers. M-D Numetal door sets are available with regular door bottoms or with threshold exposed hook.

**M-D Extruded ALUMINUM THRESHOLDS WITH Vinyl Insert**

This beautiful vinyl-type threshold is available in either Alacrome or Anodized Albraz finish. Albraz is a permanent brass finish color that will never tarnish—never needs polishing. Matches most solid brass hardware. Available 3½” wide by ¾” or 1¼” high; 1½” wide by ¾” high.

**M-D Extruded HEAVY DUTY DRIP CAP**

Extruded heavy duty drip cap—in natural finish or anodized satin, bright or brass colors.

**M-D Numetal DOOR BOTTOMS**

Made of extra thick wool felt and heavy gauge stainless steel, brass or aluminum. Standard lengths—28”, 30”, 32”, 36”, 42” and 48”—packaged 1 dozen same length to carton. Special lengths available.

**M-D CALKING & GLAZING COMPOUND**

You can use and recommend this glazing compound with complete confidence that it always "stays put." Packed in ½ pt., pt., and qt. cans, 25 lb... 50 lb., 100 lb., 880 lb. drums.

**M-D Extruded DOOR BOTTOM**

Extruded aluminum and felt door bottom—in natural finish or anodized satin, bright or brass colors.

**M-D Extruded DOOR BOTTOMS**

M-D Extruded heavy duty drip cap—in natural finish or anodized satin, bright or brass colors.

**M-D GLAZING Compound**

M-D GLAZING Compound

World's best calking compound available in loads, with or without nozzle... hand squeeze tubes... or ½ pt., pt., qt., and gal. cans. Also 5-gal., and 55-gal. drums.
M-D Adjustable Screen Door Grilles available in 3 everlasting finishes

America's most beautiful screen door grilles are available in three permanent, exciting finishes. Never rust, never tarnish, never dull. Now you can offer your customers screen door grilles that match your front door hardware.

M-D PUSH GRILLE NO. 23
Here's a beautiful new addition to the M-D line of grilles for every type of screen door—wood or metal. It's M-D Push Grille No. 23... a smart, graceful new style designed to give extra protection where it is needed most. 23" high for 32" or 36" doors. 12 to a carton.

FITS-ALL No. 5
FITS-ALL No. 9
FITS-ALL No. 8
FITS-ALL No. 6
FITS-ALL Nos. 1, 3, 4, 7
FITS-ALL grilles Nos. 1, 3, 4, 7 have an accordion-like action that makes them instantly adjustable. Each comes packed 12 to carton.

No. 1 adjusts from 16" to 30¾" in width between stiles, and 40½" to 30¾" high.

No. 3 adjusts from 14" to 25" wide, and 25" to 32½" high.

No. 4 For upper section of doors. Adjusts from 19½" to 33½" wide, and 20½" to 34" high.

No. 7 adjusts from 14" to 26" wide, and 33½" to 26" high.

M-D Push Grille No. 4
A graceful push grille 4" high for 32" or 36" doors. 12 to carton.

M-D Push Grille No. 6
A handsome, low-priced push grille for aluminum or wood doors. 12 to carton.

M-D Push Grille No. 15
A graceful addition to any door—wood or metal—16" high for 32" or 36" doors. 12 to carton.

M-D Push Grille No. 16
Made especially for combination doors. 12 to carton.

Order today! Your order shipped promptly! All M-D products are fast sellers, nationally advertised.

2. **Tolerances**—See table of exacting tolerances at right.

3. **Economy**—Architects and builders are specifying and using AMERICAN LUSTRAGRAY where suited, instead of more costly plate glass, to save many "glass dollars." Note comparison table at right, showing LUSTRACRYSTAL advantages.

---

**AMERICAN GLASS PRODUCTS**

**American LUSTRAGLASS and LUSTRACRYSTAL**

(LUSTRAGLASS—single and double strength)(LUSTRACRYSTAL—1/16", 1/8", 1/4")

<table>
<thead>
<tr>
<th>STRENGTH TYPES</th>
<th>MAX. SIZE</th>
<th>THICKNESS—INCHES</th>
<th>LBS. PER SQ. FT.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Width</td>
<td>Length</td>
<td>Min.</td>
</tr>
<tr>
<td>Single</td>
<td>40&quot;</td>
<td>50&quot;</td>
<td>0.087</td>
</tr>
<tr>
<td>Double</td>
<td>60&quot;</td>
<td>80&quot;</td>
<td>0.121</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>72&quot;</td>
<td>120&quot;</td>
<td>0.187</td>
</tr>
<tr>
<td>1/8&quot;</td>
<td>72&quot;</td>
<td>120&quot;</td>
<td>0.212</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>72&quot;</td>
<td>120&quot;</td>
<td>0.245</td>
</tr>
</tbody>
</table>

**COMPARISON**

<table>
<thead>
<tr>
<th>LUSTRACRYSTAL</th>
<th>PLATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarity (visible light transmission)</td>
<td>GREATER</td>
</tr>
<tr>
<td>Clarity (ultraviolet transmission)</td>
<td>LESS</td>
</tr>
<tr>
<td>Strength (impact)</td>
<td></td>
</tr>
<tr>
<td>Strength (constant pressure)</td>
<td></td>
</tr>
<tr>
<td>Strength (surface abrasion)</td>
<td></td>
</tr>
<tr>
<td>Luster</td>
<td></td>
</tr>
<tr>
<td>Distortion</td>
<td></td>
</tr>
<tr>
<td>Economy</td>
<td></td>
</tr>
</tbody>
</table>

**American LUSTRAGRAY Glare Reducing Glass**

This neutral gray tint sheet glass is economical, and has good merchandising features to make your homes more saleable. AMERICAN LUSTRAGRAY reduces glare about 50%. Table at right gives characteristics.

<table>
<thead>
<tr>
<th>D.S.</th>
<th>3/16&quot;</th>
<th>3/8&quot;</th>
<th>1/4&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visible Transmission...........</td>
<td>71.1%</td>
<td>61.8%</td>
<td>58.8%</td>
</tr>
<tr>
<td>Infrared Transmission.........</td>
<td>79.2%</td>
<td>73.4%</td>
<td>71.7%</td>
</tr>
<tr>
<td>Solar Radiation Transmission..</td>
<td>75.5%</td>
<td>68.3%</td>
<td>66.3%</td>
</tr>
</tbody>
</table>

For maximum size, thickness, pounds per square foot, etc., see corresponding sizes in Table at top.

---

**Find Your American Jobber in The 'Yellow Pages'**

AMERICAN glass products are now available through more than 500 glass jobbers. Check your classified telephone directory for listing.
NOW! Superior Cabinets and Built-ins at no extra cost with Old Craftsman Pine Plywood!

Whether you build your own cabinets or have them built for you, you should know about Weldwood’s new Old Craftsman Pine Plywood — the easiest working, easiest painting plywood ever!

This newest member of the quality Weldwood Family combines all the time- and money-saving advantages of pine lumber . . . with the greater strength and time- and money-saving advantages of plywood construction. And, more important, it turns out a superior finished product every time!

If you build your own cabinets and built-ins, Old Craftsman is for you. It takes paint better, needs less paint to cover. And there’s no grain show-through or color show-through. Old Craftsman works like a charm. Takes a straight, non-splinter edge . . . saws cleanly and easily . . . and comes already factory-sanded. And, since it is good-looking pine, you can stain it or finish it natural if you wish. Furthermore, interior grade Old Craftsman is made with L-1R, an exclusive mold-resistant bonding agent for your protection.

If you buy your cabinets and built-ins, start specifying Old Craftsman Pine Plywood for them. It means an extra-quality product in your homes at no extra cost to you! It’s the kind of “extra” that may help you close a sale fast! Work done with Old Craftsman Pine Plywood feels better, looks better, is better. Remember too, Old Craftsman Pine Plywood is so exactingly made it exceeds even the Pine Plywood Commercial Standards.

For more information about Weldwood Old Craftsman Pine Plywood, send the coupon below. Or, see it at your lumber dealer’s or any of our 87 offices in principal cities. In Canada: Weldwood Plywood, Ltd.
CUT PAINTING TIME IN HALF!

with ARCO Alkyd Ripple Texture Wall Finish

- One coat—no sealer required.
- Covers taped joints with no variation in sheen or color.
- Rolls on easily and quickly.
- Colors coordinated to match or harmonize with Arco gloss and semi-gloss finishes.
- Sold direct—manufacturer to builder or painting contractor. Arco warehouses and experienced representatives in most major cities.

A true one-coat finish for interior dry wall construction or any surface where ripple texture is desired.

An alkyd resin material with titanium pigment, it:

- RESISTS—Fumes, Heat, Washing, Moisture
- FEATURES—Very mild color

Choose from these Optonic Colors—

<table>
<thead>
<tr>
<th>Color</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>No. 2 Yellow</td>
</tr>
<tr>
<td>Caenstone</td>
<td>No. 2 Coral</td>
</tr>
<tr>
<td>Platinum Gray</td>
<td>No. 2 Green</td>
</tr>
<tr>
<td>No. 2A Gray</td>
<td>No. 2 Tan</td>
</tr>
<tr>
<td>No. 2 Blue</td>
<td>No. 2 Blue</td>
</tr>
</tbody>
</table>

AMERICAN BUILDER Reference File

ALUMINUM SLIDING GLASS DOOR

Illustrations and construction details of “Continental” are given in new color brochure.—Fenestra Inc.

Circle No. B1 on reply card Section G

ALUMINUM WINDOWS

Literature and builder’s prices are available on “Fleetlite” sliding, picture and double-hung aluminum windows.—Fleet of America, Inc.

Circle No. B2 on reply card Section G

ALUMINUM WINDOWS

Folder gives specifications and illustrations of manufacturer’s double-hung series; its new double ventilating window; and the horizontal sliding model.—Per-Fit Products Division, Spickelmer Co.

Circle No. B3 on reply card Section G

ALUMINUM WINDOWS

Size chart, specifications and complete construction details of horizontal sliding aluminum windows are given in color booklet.—Peterson Window Corp.

Circle No. B4 on reply card Section G

ALUMINUM WINDOWS

Awning windows, completely weatherstripped, are presented in this brochure. Includes specifications, installation details and sizes.—Ware Laboratories, Inc.

Circle No. B5 on reply card Section G

ALUMINUM WINDOWS & DOORS

Colorful brochures on firm’s full line of aluminum combination windows and doors as well as jalousies and horizontal sliding prime windows.—Winter Seal Corp.

Circle No. B6 on reply card Section G

CARPETING

“Cutting Costs with Carpet” is the title of this 8-page book. Gives cost data and pertinent information on the use of carpeting as a high-grade floor covering.—Carpet Institute.

Circle No. B7 on reply card Section G
Homebuyers today are more selective, more demanding. They look for "plus" features before they make a decision. And every day more and more builders are discovering that Ray-O-Lite translucent fiberglass awnings and patios are powerful "plus" features that help close more deals—and close them in a hurry! Ray-O-Lite offers tremendous merchandising opportunities: distinctive design, created by Raymond Loewy Associates...sparkling jewel-like beauty, with locked-in colors...year-round protection from all kinds of weather...Filltron 25, the effective new heat-blocking formula that keeps hot sun out but lets in soft diffused light...Chemiglazed surface that insures lasting beauty...rust-proof aluminum framework, with no exposed edges. And to top it all, Ray-O-Lite carries the emblem consumers depend on in buying finest quality: the respected Good Housekeeping Guarantee Seal.

**RAY-O-LITE**
FIBERGLAS AWNINGS AND PATIOS

Add beauty that helps you 'close' faster...

**RAY-O-LITE CORPORATION OF AMERICA**
Dept. A-4 • 316 Peachtree St. N.E., Atlanta 8, Ga.

Give me the full story on Ray-O-Lite.

NAME _________________________

COMPANY ______________________

ADDRESS ______________________

CITY __________________________ STATE ________________________

FRANCHISED MANUFACTURERS IN PRINCIPAL CITIES
R·O·W Removable Windows are modern in appearance and they are functionally modern.

Because they lift out, they are easier to maintain. Because they are made of wood and are pressure-tight, they insure maximum weather protection. Your customers will appreciate the finest modern residential windows with the exclusive LIF-T-LOX window balance.

AUTHORIZED R·O·W MANUFACTURERS
AUTHORIZED R.O.W MANUFACTURERS

NEW JERSEY
WOOOCO CORPORATION
North Bergen, New Jersey

NEW MEXICO
LUMBER DEALERS, INC.
Denver, Colorado

NEW YORK
WOODCO CORPORATION
New York, New York

OHIO
FABROW MFG., INC.
Toledo, Ohio

Oklahoma
LUMBERMEN'S SUPPLY COMPANY
Oklahoma City, Oklahoma

OREGON
ACME MILLWORK, INC.
Portland, Oregon

PENNSYLVANIA
ALLEGHANY LUMBER COMPANY
Pittsburgh, Pennsylvania

RHODE ISLAND
WOODCO CORPORATION
North Providence, Rhode Island

SOUTH CAROLINA
ACME MILLWORK, INC.
Kirkland, Washington

SOUTH DAKOTA
WATERTOWN SASH & DOOR CO.
Watertown, South Dakota

TENNESSEE
V.E. ANDERSON MFG. CO., INC.
Wynnewood, Tennessee

TEXAS
CHUPK WOOD MFG. CO., INC.
San Antonio, Texas

Utah
R. W. FRANK & COMPANY
Salt Lake City, Utah

WASHINGTON
ACME MILLWORK, INC.
Kirkland, Washington

WEST VIRGINIA
MW DISTRIBUTORS
Rocky Mount, Virginia

WISCONSIN
WINDOW UNIT CO.
Merrill, Wisconsin

WASHINGTON
ACME MILLWORK, INC.
Kirkland, Washington

WEST VIRGINIA
MW DISTRIBUTORS
Rocky Mount, Virginia

WISCONSIN
WINDOW UNIT CO.
Merrill, Wisconsin

WYOMING
FOWLER & PETR
Cheyenne, Wyoming

CANADA
DOMINION SASH, LTD.
Ottawa, Ontario

ACADEMY, FERNDALE 20, MICHIGAN
APRIL 1957
Grant Folding Doors

make home values grow!

...and no wonder! No folding door on the market can duplicate the many fine selling features of the Grant Folding Door!

* a real door that folds
* solid, 3/16" thick hardboard core
* finely textured vinyl fabric, laminated to core
* sound resistant and light-proof
* nylon carriers, aluminum track
* minimum stacking space
* "built-in" friction catch
* a variety of colors in a wide range of sizes
* designed by nationally famous Paul McCobb

Grant has available the greatest array of technical and promotional aids ever! Write for specification, application and installation data included in the Grant Folding Door Reference Manual.

Outstanding single source for sliding hardware

Grant PULLEY AND HARDWARE CORPORATION
31-63 Whitestone Parkway, Flushing 54, N. Y.
944 Long Beach Avenue, Los Angeles 21, Calif.
G-P builder's guide

Forest products by Georgia-Pacific

G-P Prefinished V-Grooved Hardwood Paneling

Factory-waxed for natural, lasting finish... V-grooving simulates random planks, edges eased for continuous effect. Back and face sealed, ready to install. 4'x8' and 4'x7' panels, 1/4" thick, packaged for surface protection. Choice of 7 classic hardwoods: Blond Cativo, Birch, Blond Oak, Honeytone Oak, Red Gum, Cherry, Walnut.

G-P Savannah Paneling
Packaged for Easy Sale

"One-trip" package is complete do-it-yourself kit including prefinished random width panels, sufficient retaining clips® and grooved furring strips® for 12'x8' wall. Easiest of all plywood panels to install... 4 simple steps, no face-nailing. Birch, Blond and Honeytone Oak.

GPX Yellow Plastic Surfaced Plywood

Low-cost siding for interior-exterior uses allowing minor edge filling; surface engineered for fast, smooth finishes; no sanding or seal coat needed; weather-proof when painted, reduced grain raise. May be sawed, machined, drilled, riveted, glued or edgesanded. 4'x8' panels, 5/16" to 3/4" thick; longer, thicker panels manufactured to order at extra charge.

G-P Textured Paneling

Ripplewood®. Low-cost genuine wood paneling; "brushed" effect accentuates knots, burls and other growth characteristics, provides a surface that can "take it." Factory-sealed; variety of finishes possible by waxing, staining or painting. 4'x8" or 4'x7" plywood panels and 12" or 16" squares.

Striated*, For distinctive shadow-line wall styling vertically or horizontally or alternate squares for dramatic pattern interest. Southern Gum Hardwood Striated for natural finish, Western Fir Striated for staining or painting. Sizes same as Ripplewood.

G-P Coos Bay Hardboard


G-P Lumber and Wood Products from 11 Mills

Southern and Appalachian Hardwoods; Shortleaf, Longleaf Yellow Pine and Cypress; Douglas Fir, West Coast Hemlock and Sitka Spruce; Sugar Pine, Ponderosa Pine and White Fir; Kiln Dried Pattern Lumber, Flask Stock.

G-P Redwood Lumber

Superior product of controlled quality backed by one of the world's finest reserves of California Redwood. Siding, finish, pattern.

Send coupon for further details and samples.

Pat. Pend.

GEORGIA—PACIFIC CORPORATION

Send coupon for further details and samples.
Let The General's Reputation and Experience—and 48 Years of Leadership—Sell For You!

* ADVANCED PRODUCT DESIGN because General Bronze leads with "firsts"
* TROUBLE-FREE ENGINEERING by the most talented staff in the industry
* SPECIALIZED SERVICE TO BUILDERS thru well-established, responsible distributors
* DEPENDABLE DELIVERIES from big warehouse stocks in every area
* CONTINUOUS ADVERTISING — link yourself to ALWINTITE popularity!

DOUBLE-HUNG WINDOWS

Features and quality that impress even the unsophisticated home prospect! Easy to handle, install, with lowest "installed costs." Built-in weather stripping. Screens and storms available. In 35 standard stock sizes with Fin Trim for time-saving installation. Preassembled 90, 135 and 180 mullions available.

SINGLE-HUNG WINDOWS

Low-low cost with General Bronze Alwintite engineering and design. Same famous quality as Alwintite double-hung windows plus simplicity, extra-tight seal and structural rigidity. Actually a selling plus for air conditioned residences and buildings!

SLIDING WINDOWS

Originated by General Bronze! The most popular window in America today. Simplest installation. Consumer advantages include beauty, ample light and air, and conservation of wall space. In 18 stock sizes with or without Fin Trim. Alwintite screens and storms available. New model features integral sliding storm sash.

AWNING WINDOWS

The window most demanded by women who see them! New torque-bar and flexible-cable operation delivers "Balanced Power" via worm gear. Finger-touch control, delayed action opening, tightest closure without tension! Completely weatherstripped. Quality and durability suitable for schools and hospitals, yet priced low enough for economy residences. In 15 standard and 24 modular sizes.
Today's buyers love large glass areas. Build in these modern selling assets. Picture-slide windows have fixed panel in center and sliding sash on each side. Fin Trim simplifies installation. 12 standard sizes in easy-to-handle units.

PICTURE-SLIDING WINDOWS

Use these lovely units to form "a wall that opens"... and watch the spectacular effect on prospective home-buyers! Ball bearing rollers—completely weatherstripped—accommodate insulating glass— independent channels for screen units.

REGENCY Series sliding doors

A top quality product with deluxe features and especially weathertight construction. Sturdy lock. Ideal for rooms opening onto porch, patio, or terrace. In widths from 6' to 24'. Heigths 7' and 8'. Special model for 1" Thermopane.

CORONET Series sliding doors

Alwintite quality in a "sliding door wall" at a thrifty price! 1, 2, 3, or 4 tracks. 6' to 20' widths. Standard 6'10" height.

MAKE FINANCING AND SELLING EASIER!

Include Alwintite screens and storm sash under the single mortgage, one monthly payment plan. Home buyers benefit, and you earn a reputation for quality and thoroughness. Mortgage bankers and FHA offices strongly endorse the idea.

For complete details on ALWINTITE Products see your local distributor... or write for our latest catalogs to Dept. AB-571.
removable window units

The new standard in double-hung performance! Both sash remove and replace easily. Fully counterbalanced and weatherstripped. Automatic sash engager clip. Flat overhead balance with extra-strong steel cable, low head room. 2, 4, 12 lite and cottage styles in all popular sizes.

stacking awning window units

Unlimited window variety! Roto-operated sash open 90° for full view and ventilation. Narrowest mullion. Continuous bronze compression weatherstrip. Concealed hardware. Screen and roto-operator standard with all ventilating units. Crestopane insulating glass in every unit. (Single glazing optional)
FROM YOUR CRESTLINE DISTRIBUTOR!

casement window units


removable slideby window units

For better view and greater privacy! More usable wall space, too! Sash glide smoothly on nylon in extruded aluminum tracks. Alumaflex weatherstrip in head for weather tightness, easy removal of sash.

See your distributor or write

Crestline Millwork

Manufactured by The Silcrest Company, Wausau, Wisconsin
WARE - TITE GLASS JALOUSIES AND DOORS

You will agree by test and by comparison "Ware-Tite" is the tightest closing jalousie. Completely weatherstripped—floating stainless steel weather cushion at jambs; neoprene at head and sill. Specially designed travel bar equalizes leverage, sealing louvers. New Sure-Lock spring clip holds glass firmly. 120° opening range for easy cleaning and increased air flow. Space saver—KD packing enables saving in transportation and storage. Quick assembly—only 8 screws. Adjustable—widths can be reduced at job site for exact opening. Heavy-duty crank operator. Sturdy construction, deep frame 3⅛". Standard Metal Window Institute sizes—special sizes available on request. PRIME WINDOWS—BREEZEWAYS—PORCHES

RESIDENTIAL CASEMENTS

Weatherstripped

The window with the "earned" reputation.

COMPARE:

DESIGN—DIMENSIONS
Deeper sections 1 3/32";
Wider Faces 31/32".
For strength—3/16" ventilator web.
Wide double contact weathering surfaces.
Putty retaining serrations—water tight lip.
Complete accessories— Mullions—Hardware—Screens.
Storm Sash interchangeable with screens.
Smooth precision welded corners
Chemically cleaned for beauty.
Lacquered per FHA specifications.
PICTURE WINDOWS—FIXED—BASEMENTS—BOTTOM VENTILATORS
BULLSEYE—SUNBURST—HOPPERS
67 Standard and Modular Sizes.

WARE

AWNING WINDOW

Weatherstripped

For residential, institutional and commercial construction. Weatherstripped by premium vinyl locked in extruded channel unexposed to weather. Operator concealed in sill—no exposed gears—no field installation required. Smooth, sturdy CENTER SILL operator—a compound operator sealed and installed in sill at factory. Torsion resistant tubular sill. 3/8" solid extruded aluminum power bar. Ventilators of each window equal height and drop for easy inside cleaning. Snap-on glazing bead available. Wide overlap of weathering members. Min. outside at jambs 5/16". Storm sash interchangeable with screens.

★ All windows are WEATHERSTRIPPED

★ All windows meet the latest FHA specifications

YOU can profit from this full line of proven quality windows—with prompt delivery assured by Ware's regional warehouses in HOUSTON, ATLANTA, NEWARK, and CHICAGO. Get all the facts by writing Dept. AB-4.

AMERICAN BUILDER
ECON-O-WARE AWNING
Weatherstripped
America's economy awning window.

FUNCTIONAL—
PRACTICAL—
TROUBLE FREE

DISTINCTIVE FEATURES
Underscreen operator—Complete screen protection.
Positive locking—Selective ventilation.
All-weather awning protection.
Attractive horizontal sight lines.
Sturdy flash-welded corners—Stainless steel bushings.
Seals tight with leverage—ventilators controlled at center permitting even weathering.
Installation similar to casements—1½" Z bar.
Quality with economy.
12 stock operating sizes—12 stock Picture Window and Fixed sizes.

PROJECTED
ARCHITECTURAL—INTERMEDIATE
For hospitals, schools, commercial and residential construction.
Selected weathering—optional weatherstripping.
Double glazing without adapters.
Inside or outside glazing.
Rugged monumental construction.
Adjustable friction shoe with pressure spring fully inclosed.
Reinforced corners at pivot points.
Simplicity of design insures trouble-free life.
A superior window designed and built to meet today's exacting specifications.
Standard AWMA sizes available—special sizes on request.

ECON-O-WALL AWNING
Weatherstripped
9 Standard windows—unlimited combinations
ECW Nos. 1110, *11
3'-1 15/16" x 2'-1 15/16"
ECW Nos. 1210, 1211, *12
3'-1 15/16" x 4'-2 5/16"
ECW Nos. 1310, 1311, 1312, *13
3'-1 15/16" x 6'-3 9/16"
*11, 12 and 13 Fixed Windows
A modern window for modern living.
Variable venting arrangements.
Highly weatherproof—seals tight.
Complete screen protection—underscreen operator.
Positive lock—trouble-free performance.
Standard Thermopane or equal can be used throughout.
Special glazing adapters not needed.
More light—more ventilation—more beauty.
Meets any building budget.

ALL Ware Windows of every type are chemically cleaned, etched and lacquered per FHA requirements. Storm sash available for all residential windows.

Aluminum Windows
+ proven value = more profit for you

Ware Laboratories, Inc.
3700 N.W. 25th St., Miami, Florida

WARE
MEMBER OF THE ALUMINUM WINDOW MANUFACTURERS ASSOCIATION

APRIL 1957
For beautiful walls, job after job—easy to install Marlite Plank and Block

You'll cut days off completion time, add customer appeal with new Marlite Plank and Block. This easily-installed paneling is applied over plaster, plasterboard, plywood or existing wall surfaces with adhesive. Simple clips speed installation; make fitting easy. And Marlite's soilproof melamine plastic finish stays clean and bright with an occasional damp cloth wiping; drastically reduces maintenance time and expense.

Planks (16” x 8’) and Blocks (16” square) are available in modern, new Loewy-styled colors plus distinctive wood and marble patterns. Before your next building or remodeling project, get complete Marlite details from your building materials dealer, Sweet's File, or Marlite Division of Masonite Corporation, Dept. 403, Dover, Ohio.

that's the beauty of Marlite® plastic-finished paneling

MARLITE IS ANOTHER QUALITY PRODUCT OF MASONITE® RESEARCH
THE AMAZING NEW WINDOW WITH SASHES THAT TILT

T. M. Reg. Pend.

safe, easy cleaning
more air! no drafts!
keeps out rain, snow

Both sashes tilt easily to any desired angle for true healthful no-draft ventilation that uses 100% of the wall opening! Wash all outside glass in comfort—without disturbing screens or storm sash. Looks like an ordinary window and can also be used like one—concealed adjustable spiral balances for quiet, easy operation.

It goes up...It goes down...It's weatherstripped...And it TILTS!

FAMOUS BEE GEE...THE DECORATOR'S WINDOW

Companion line of 170 high-style casement, picture and corner picture windows..."idea" windows designed as focal points for lovely modern interiors. "Wife-Approved" for their clean, slim modern beauty, their practical convenience. Completely assembled units, ready to set in the wall. New fingertip Crank Operator now optional, factory-installed—also in kits for older Bee Gee windows.

BROWN-GRAVES CO., Akron 1, Ohio

BROWN-GRAVES CO., Dept. AB-118, Akron 1, Ohio
Send catalogs with full details on:

TWIN/TILT WINDOWS  BEE GEE WINDOWS

I am a:  builder  architect  dealer

NAME

ADDRESS

CITY  ZONE  STATE

APRIL 1957

B61
Ceiling can be hung from rafters or collar beams — ceiling joists can be omitted. The bottoms of supporting members need not be leveled up by furring. No bearing partitions are required. Three men cover a minimum of 200 square feet an hour!

Wilson Air-float is a "continuous dry-wall" method of ceiling construction. It is revolutionary — yet it employs only standard materials and no special equipment. The completed ceiling — of any size — floats as one unit — free to expand or contract in either dimension. The edges are held back ½" from each wall and merely rest upon the corner mold, or the ceiling may be hung free from all walls.

The surface area is made up of weatherproof Homasote Insulating-Building Boards in the largest practicable sizes — up to 8' x 14'. This surface takes any paint, stain or wallpaper.

The hangers are 1 x 4's — from 12" to 36" in length — each suspended by four ¾" plumber's straps. To support an 8' x 14' Homasote panel, only four hangers are needed within the panel area and only four along a joint. The joints are sanded and spackled — as needed. Homasote Nails #1256 have "waffle" heads to match the linen surface of the panel; they require no counter-sinking or spackling.

Wilson Air-float Ceilings are easily applied — in new construction — in modernization, regardless of existing conditions. It is often the only possible solution to the "impossible" ceiling situation.

Let us send you complete blueprint material and full application details. Write for the facts today! Kindly address your inquiry to Department D-8.

HOMASOTE COMPANY
TRENTON 3, NEW JERSEY
YOUR FORMULA FOR MORE SALES AND GREATER PROFIT IN 1957... that modern luxury-touch of Glidorama ALUMINUM HORIZONTAL GLIDING WINDOWS...

You have found out that today's home buyers want modern luxury... and they are willing to spend just a little more for the better things, especially when they look so much more costly. Glidorama Windows qualify hand-somely on this!... They are obvious quality when you see them or use them! And they give you five exclusive features to sell with... over and above the features of any other quality window—

1. Complete perimeter seal of entire vent... assurance to your customer that wind, dust or rain will never get in.
2. "Invisible" hardware... such as handle designed flush with meeting rail molding and featuring an automatic tamper-proof bolt-lock—universally popular with home-buyers.
3. Stainless-steel needle-bearing rollers on stainless-steel axles... to give your customers that instant finger-tip gliding action, always instantly recognized as quality.
4. Twin-V-shape metal interlock at both meeting rail and jamb... to eliminate vibration completely and provide a sound-proofing all home-buyers appreciate.
5. 20%-heavier-gauge frame sections, and double-I-Beam sill construction... to give the strength needed to support broad areas of glass, plus the rigidity for flawless lifetime operation, an impressive point to every customer.

Plus these savings on installation—no painting (of interior or exterior trim)... less time to install (delivered ready to install, and with wide flanges)... built-in storms and screens (no added costs for your customers)!

See how Glidorama Windows fit your formula for more sales and greater profit in 1957!... Send coupon or letter for our Builders' Catalog, Price List or a Glidorama demonstration right in your office!

give your '57 home buyers that modern luxury-touch... whether for the more modest homes like this... or on up to the more costly modern mansions like this...

Only by a demonstration can you appreciate how Glidorama Windows will make sales easier, profits greater!

See our Catalog in Sweet's File No. 50/GLI


Gentlemen—
☐ Send your Glidorama Builders' Catalog.
☐ Arrange for a Glidorama demonstration in my office.

Name

[Address]

City

State

APRIL 1957
Here's window beauty for indoor-outdoor living!
John Barkhorn is the owner and designer of this South Orange, New Jersey home.

The window beauty of Andersen WINDOWALLS serves here to blend a charming outdoor scene with a well-appointed interior. These beautiful —and practical—Andersen Gliding Wood Window Units slide easily in their plastic tracks to let in cooling breezes; yet they close tight to form a weatherproof barrier that seals out rain, dust, drafts. The natural wood is pleasing to the eye, to the touch and provides natural insulation—makes it easy for the builder to create beauty and distinction.

For information on how to create quality in homes you build with WINDOWALLS, see your lumber and millwork dealer, Sweet's Files or write Andersen. WINDOWALLS are sold throughout the country, including the Pacific Coast.

ANDERSEN CORPORATION • BAYPORT, MINNESOTA
An entrance you'd be proud to make...

with Long-Bell Ponderosa Pine doors

The graceful line of Long-Bell Doors opens wide a new world of volume sales for you. Long-Bell's expert craftsmanship combined with the strength, beauty and warmth of Ponderosa Pine, provides both builders and remodelers their choice of design and size. The Quality of Long-Bell products since 1875, has been geared to meet the demand for perfection... so that you can now proudly present your customers "Doors Designed to Last a Lifetime"... by Long-Bell!

INTERNATIONAL PAPER COMPANY

KANSAS CITY, MO. LONGVIEW, WASH.

AMERICAN BUILDER
Almost any storage requirement can be met with these molded plastic drawers by Knell-Drake Products, Inc. Use them in bathrooms, attics, garages . . . they're unaffected by moisture and most chemicals.

Molded phenolic drawers dramatize storage space

Prospective homeowners demand beautiful, functional storage areas. That's why these drawers, molded of BAKELITE Brand Phenolic Plastics, spark interest in your homes . . . providing that luxurious "extra" buyers look for.

Design possibilities unlimited because the range of standard sizes allows you to design almost any shape storage area . . . and you eliminate time-consuming hand fits.

Customer satisfaction assured because the rigid molded phenolic cleans easily, is unaffected by heat or humidity. These drawers are supplied with specially designed slides and built-in drawer stops . . . stylish pulls are available . . . the easiest installation you ever saw!

You can have complete data on molded drawers by writing Dept. WO-5.

BAKELITE COMPANY, A Division of Union Carbide and Carbon Corporation  30 East 42nd Street, New York 17, N. Y.

The term BAKELITE and the Trefoil Symbol are registered trade-marks of UCC.
HOPE'S COMBINATION INSIDE-OUTSIDE METAL TRIM is easily and quickly installed with all standard sizes of Hope's Steel Casements. Trim fits into rough openings; no finished carpentry is required, either inside or out. Only a few minutes are needed for assembling at the warehouse or on the job.

HOPE'S COMBINATION INSIDE-OUTSIDE METAL TRIM is easily and quickly installed with all standard sizes of Hope's Steel Casements. Trim fits into rough openings; no finished carpentry is required, either inside or out. Only a few minutes are needed for assembling at the warehouse or on the job.

HOPE'S STEEL CASEMENTS (standard sizes shown in above diagram) provide a variety of sizes and ventilator combinations that complement any type of architecture; readily fit any kind of construction. No other window can equal the strength and durability of steel.
Protect your wallboard construction with STEEL...

Use Gold Bond Corner and Casing Beads

Guard exterior wallboard corners with Gold Bond Arch Corner Bead

Protect your wallboard corners while you're building—and give protection that lasts long after prospects buy. Put the permanent strength of steel into exterior corners with Gold Bond Wallboard Arch Corner Bead.

You get maximum bonding of joint cement with Gold Bond's exclusive triangular design—and this bead's deep knurled flanges prevent joint cement slippage during application and give better adhesion afterwards.

Protect door and window edges with Gold Bond Wallboard Casing Bead

These self-finishing steel casings cost less than wood trim and make it easier to terminate wallboard construction around doors and windows.

Guard against construction accidents—and give homeowners the extra strength that steel provides. Each casing unit fits snugly and has a ridge design that locks in the wallboard. You save painting time because there's no fuss about trim edges.

Precision-mitered ends available at no extra charge.

Homeowner prospects appreciate strong exterior corners and sturdy door and window edges. For more information on how Gold Bond® Wallboard Arch Corner and Casing Beads can help you build—and sell—better, write National Gypsum Company, Dept. AB-47, Buffalo 2, New York.
"These windows can take it"

says Sid Naham, Maryland builder

"I've been using steel windows continuously for twenty years," reports Mr. Naham, president of Naham Construction Co., Inc., of Silver Spring, Md. "You know, windows get a lot of abuse during construction and in the home. My experience proves steel windows can take it.

"What's more, with steel sash I get the most window area for the least money. I'm using steel casement windows with inside-outside trim in my Newcastle, Adelphi Heights and Glen Haven projects."

Take it from Mr. Naham and from successful builders everywhere, your best buy is steel windows. They're easy to work with, they resist damage, and they go in fast.

Once installed, they give trouble-free service. And their clean, modern lines add greatly to the appearance of your homes, especially when the sash is painted to harmonize with your inside and outside color schemes.

Available in many popular types and designs. You'd be wise to use steel windows in the next homes you build!

BUILD FASTER...SELL FASTER WITH

STEEL WINDOWS

B70
An answer to today's biggest problem in RESIDENTIAL BUILDING

With material costs and labor costs what they are, how can you give home buyers a better house at a price they are willing to pay?

We think we have an answer for you: (continued on next page)
Design, build and sell your house as an ALL-insulated home by putting Thermopane® insulating glass in every window. **Sales points you can use on prospective owners:**

1. Any house with single glass—without Thermopane—in every window is only halfway insulated.

2. Thermopane keeps the house warmer in winter (and cuts fuel bills). Cooler in summer (cheaper to air condition). And it insulates against outside noise year ’round.

3. No storm sash to buy, put up, take down, paint, wash or worry about . . . ever!

4. The cost of Thermopane can be part of the original mortgage for only a dollar or two a month, and the resale value of the house is higher.

**YOU CAN CASH IN ON THIS!** Home buyers in your community who read Life, Better Homes and Gardens, American Home or House Beautiful will see Thermopane advertised as “a sign of a better buy”. By using it in your houses you can cash in on this and 13 years of national advertising. Thermopane is the best known and most wanted kind of insulating glass.
Thermopane Facts

1/4-inch DSA Thermopane

Two lights of 1/4" glass with 1/4" air space — 54 standard sizes. Thermopane made with DSA Glass is economical double glazing. However, while made with fine-quality window glass, it does not provide the clarity of vision and superior exterior appearance attained with polished plate glass.

1/2-inch polished plate glass Thermopane

Two lights of 1/2" plate glass with 1/4" air space—49 standard sizes. Thermopane made with 1/2" plate glass provides better vision and gives the home a finer quality appearance.

1-inch Thermopane

Two lights of 1/2" Parallel-O-Plate® Glass with 1/2" air space—56 standard sizes. This Thermopane provides excellent thermal insulation combined with the clarity of vision that you get with plate glass. Ideal for picture windows, window walls and sliding glass doors.

Special Glasses

Thermopane can be made with four types of glass for reduction of glare and solar energy transmission: 1/4" or 1/8" Heat Absorbing Plate Glass—blue-green, transparent. Also 1/4" or 1/8" AKLO® Hammered Glass—blue-green, translucent. For diffusion of light and for decoration, it can be fabricated with any one of several Blue Ridge Glass patterns. For extra resistance to thermal shock or impact, it can be fabricated with Tuf-flex® tempered plate glass.

SLIDING GLASS DOORS — The demand for Thermopane for these large glass areas is growing at a tremendous pace. L-O-F and the sliding glass door industry have standardized on three sizes of 1"-thick Thermopane: 33" x 76 1/4", 45" x 76 1/4", 57" x 76 1/4". Architect: Wilbur Firth, Cincinnati, Ohio.

PICTURE WINDOWS AND WINDOW WALLS — Most leading manufacturers of wood or metal sash for picture windows or window walls can supply sash designed to take standard sizes of 1"-thick Thermopane. Porch planned by owners, Mr. and Mrs. P. F. H. Reicher, Toledo, Ohio.
Since Thermopane is a factory-sealed insulating glass unit and is subject to movement due to changes of temperature and barometric pressure, adequate provision should be made for expansion and contraction.

An approved cushioning material must be used so there is no contact between the sash and glass at any point. L-O-F has available Neoprene setting blocks for units \( \frac{1}{2} '' \), \( \frac{3}{4} '' \), \( \frac{5}{8} '' \), and 1" thick. Also, for units \( \frac{5}{8} '' \) thick, the company has available a metal glazing clip for use in steel, aluminum and wood sash. Under no circumstances should units be forced into any type of sash. Face clearances between glass and stops must be at least \( \frac{1}{4} '' \). Edge clearances between glass and frame must not be less than \( \frac{3}{8} '' \) on each edge for \( \frac{1}{2} '' \) Thermopane, and \( \frac{5}{16} '' \) on each edge for units over \( \frac{1}{2} '' \). For detailed glazing information, ask for Thermopane Manual.

The contractor, architect and building owner should assume responsibility in seeing that glazing instructions are followed and not accept the job if they haven't been.

**Thermopane can be used in these standard types of sash:**

- Picture Windows and Window Walls
  56 sizes
- Double Hung Windows
  (2-light)
  14 sizes
- Double Hung Windows
  (4-light)
  14 sizes
- Wood Casements
  7 sizes
- Wood Awning Windows
  6 sizes
- Residential Steel Casements
  6 sizes
- Wood Panel Windows
  2 sizes for fixed lights
  2 sizes for ventilators
- Panel Window with Louvers
  1 size
- Modified Wood Panel Window
  1 size
- Metal Panel Windows
  1 size for fixed lights
  1 size for ventilators

**HELPFUL INFORMATION AVAILABLE**

To assist you and your staff in using Thermopane, L-O-F offers the following:

- List of standard sizes
- List of manufacturers who make sash for Thermopane
- Simple framing methods (complete details)
- Folder on economical Panel Window System

**Thermopane Merchandising Guide** — to assist you in using Thermopane as a sales feature.

**Thermopane Sales Aids** — signs, folders, displays, banners, mats, TV commercials, radio spots, etc.

For further information contact your local L-O-F Glass Distributor or Dealer (listed under "Glass" in phone book yellow pages) or write to Libbey-Owens-Ford Glass Company, Dept. 517, 608 Madison Ave., Toledo 3, Ohio.
You'll appreciate the Exclusive Features in

VENTO WINDOWS
(STEEL AND ALUMINUM)

Take, for example, the Vento Champion Steel Basement Window. It's the best window made and for these reasons: Made of 14 gauge formed steel sections, our own design; 3 position ventilation; weather stripping action of ventilator in frame; positive action cam lock gives greater tolerance; high sill section prevents leakage; integral fins for easy installation in any type of construction; design of formed sections allows unit to stand by itself, saving installation time. It's really a Champion!

Heavy duty pouring bucks are available for poured wall construction — can be used over and over.

VENTO Steel Casement Windows

All casements drilled and tapped to receive storm sash and screens, operator arm guide channels attached with screws for easy removal and replacement, if necessary; ventilator frames constructed from the same heavy sections as the outside frame to provide greater rigidity and stronger ventilators.

VENTO Aluminum Awning Windows

Direct gear operated, worm and pinion type; heavy duty construction with angle handle that conforms to all stool depths, minimum turns to open window fully. Weather tight ... Vento alone keeps metal to metal contact plus metal to weatherstrip. Effortless operation ... nylon roller blocks at all friction points permit finger tip operation.

VENTO Industrial and Commercial Steel Windows

Vento Pivoted, Projected and Architectural Windows are suitable for every type of commercial and industrial building, especially where abundant daylight and fresh air are desired. Offered in a broad new range of types and sizes.
A GRACEFUL ENTRANCE OPENS THE DOOR TO SALES

Home buyers appreciate the first impression they receive from a doorway made distinctive with figured glass. Note how this simple use of Mississippi Broadlite adds a touch of luxury that sells on sight. Greet your prospects with glamour and gain sales. Use translucent, light diffusing glass by Mississippi to add eye appeal that pays off in greater buy appeal.

Glass does so much to any home to make it more attractive...floods interiors with flattering “borrowed light”... makes rooms seem larger, friendlier, more desirable.

Give your homes the extra sales appeal that only glass can add. Buyers want that “different look.” See your nearby Mississippi Glass distributor and select from a wide range of patterns and surface finishes that can enhance your homes.

WRITE TODAY FOR FREE CATALOG.
ADDRESS DEPARTMENT 34.

MISSISSIPPI GLASS COMPANY
88 Angelica St. • St. Louis 7, Missouri
NEW YORK • CHICAGO • FULLERTON, CALIFORNIA

CAULKING COMPOUND
Specification data on caulking compounds and guns are described in this 4-page folder.—Calbar Paint & Varnish Co.

CERAMIC TILE
Thin setting methods for ceramic tile is the basis of this 24-page book. Complete specifications and application data is given.—Tile Council of America.

DECORATING
Decorating suggestions to create the popular rustic atmosphere for modern homes are contained in this bulletin. Each of four types of rustic colors are illustrated and application techniques are given for each of the finishes.—Western Red Cedar Lumber Ass’n.

DECORATIVE PANELING

DECORATIVE PANELING
Full line of Marlite plastic-finished wall and ceiling panels is shown in attractive booklet, which contains color charts, features, installation drawings and data on mouldings.—Marsh Wall Products, Inc.

DISAPPEARING STAIRWAYS
Folder illustrates firm’s line of wood disappearing stairways. Gives dimension tables with complete rough-in data.—Bessler Disappearing Stairway Co.

DISAPPEARING STAIRWAYS
Illustrated brochure gives features and specifications for line of folding stairways, sliding stairways and disappearing ladders.—EZ-Way Sales, Inc.
SEE HOW THESE NATURAL WOOD PELLA FOLDING DOORS harmonize with the walls, floor, ceiling, and furnishings of this room. And PELLA DOORS contribute to over-all excellence of room design, too—you can close for privacy, open to create attractive spaciousness. Handsome veneers of birch, pine, oak and Philippine Mahogany are available. Easy-to-install, doors are factory assembled, and come complete with all hardware.
Wood-Mosaic's Clustered Square Pattern Hardwood Flooring provides added luxury to any home... traditional or modern. It is practical in every respect and combines beauty with lifetime durability. You will delight in its warmth of color and richness of detail. Clustered Square is priced to give you a parquet hardwood floor within your building budget.

Factory assembled and pre-finished with Wood-Mosaic's new, amazing Diamond Lustre finish, Clustered Square is shipped to your construction site ready for easy installation. Available in a variety of woods. Consult your nearest dealer or write direct to:

Wood-Mosaic
PARKAY Division
LOUISVILLE, KENTUCKY
Maker of the World's Finest Hardwood Flooring since 1883
HANDSOME IN EVERYTHING BUT PRICE, PELLA MULTI-PURPOSE WINDOWS can create a striking focal point for both interior and exterior elevations. These windows feature all-aluminum and stainless steel hardware. Self-storing inside "storms" when specified. Wood or aluminum frame screens. Exclusive GLIDE-lock underscreen operator at no extra cost. 15 fixed and vented window sizes are all compatibly proportioned.

WOOD MULTI-PURPOSE WINDOWS

APRIL 1957
Bayley

Steel Heavy Intermediate
PROJECTED WINDOW

A Better Value in Commodity Sizes, available for quick shipment

Featuring new one-piece solid hot-rolled sections assembled by machine welding, this new Bayley Steel Heavy Intermediate Projected Window now offers you a window that exceeds all present industry standards. It retains the time-proven advantages of Bayley section design plus new shape and weight characteristics, hardware and fabrication details that result in greater strength, better weathering and maximum freedom from upkeep — an extraordinary dollar value in window service and operating qualities. The features listed below readily reflect the Bayley window engineering experience and modern manufacturing methods embraced in this new window.

- 3.5 lbs. per foot weight of ventilator frame and jamb
- Sections (one-piece) 1 1/4”, 1 3/8” and 1 3/4” deep — with wide parallel double-contact weathering rolled integrally
- Joinery — machine welded and finished
- Outside glazed — accommodates 1/2” insulated glass
- Wide triple-contact brass friction shoes assure smooth operation of ventilators

Bayley Projected Windows are also available in aluminum in commodity sizes.

THE WILLIAM BAYLEY CO.
Springfield, Ohio
District Sales Offices: Springfield * Chicago * New York * Washington
ATTRACTIVE AND VERSATILE, PELLA CASEMENT WINDOWS can be used in an infinite number of combinations to enhance room design. Home buyers will appreciate screens that roll up and down! PELLA Dual Glazing, the self-storing storm window stays in place the year 'round. Or, insulating glass optional. Wood-lined, steel frames combine beauty and rigidity.

WOOD CASEMENT WINDOWS
INFORMAL

The right doors and windows can be of major help in making a house look "different." And Curtis provides you with the widest, most varied line of windows, doors and other woodwork. Here a finely detailed Curtis Dutch door—highly popular—and Curtis Convertible wood windows, used as awning sash, strike the contemporary note.

TRADITIONAL

The traditional style is coming back, say many leading builders. You can capitalize on this trend with an interior like this. Curtis divided-light Silentite double-hung windows are used in a bay. Like all Curtis windows, these open and close at a touch, are truly weather-tight. The door is a Curtis panel door—one of many styles awaiting your choice.

MODERN

Curtis Silentite casements will never swing or rattle in the wind and staunchly bar out dust and weather. They are made in several sash styles. The door is a famous Curtis New Londoner with a beautiful grain pattern that creates a "picture in wood." The broad line of Curtis Woodwork offers styles for every taste, every purse and every personality.
Give the lady what she asks for
(it's the way to sell houses)

When housing authorities in Washington, D.C., asked representative women what they want in dwelling-house styles, they got an emphatic answer. Women want houses that have personality. They dislike "look-alikes"—intensely.

Today, Curtis offers you the easy, practical way to vary the appearance of the houses you plan or build, and to upgrade quality at the same time.

Curtis wood windows and doors come in so many different styles and types that you can offer the home owner almost an unlimited choice of door and window combinations. No other manufacturer has so broad and varied a line—entrances; trim, mantels, cabinetwork, stairwork, kitchen cabinets—everything in residential woodwork to fit every taste and every building budget.

This guarantee makes selling easier

Here is absolute assurance to the home owner that Curtis Silentite wood windows embody fine materials and workmanship. These toxic and water-repellent treated windows have special patented features not available in other windows. Curtis high-quality New Londoner flush doors and panel doors, too, like Curtis Silentite windows, are trademarked to provide positive identification. This trade-mark identifies Curtis quality—famous since 1866—and it helps sell houses—at a profit.

Curtis Companies Service Bureau  
200 Curtis Building, Clinton, Iowa  
I want to know more about Curtis Woodwork. Please send literature and name of nearest dealer.

Name: ..........................................................

Address: .....................................................

City: .......................................................... State.
HOMES SELL FASTER WHEN
QUIET-ZONED WITH CELOTEX
PERFORATED CEILING TILE

New CELOTEX quiet-zoning makes homes sell easier. Smart, exclusive linear-random tile board helps “zone off” noise—breaks the barrier to bigger, quicker sales. Add the deal-clinching power of “peace and quiet” to your plans. Quiet-Zone the homes you build, with this newest aid to better building from the originator of noise-quieting fiber tile. Feature this sales-making mark of a truly modern home: Quiet-Zoned with perforated ceiling tile by CELOTEX.

Cuts Costs Three Ways! (1) Needs no decorating! (2) Material cost is low! (3) TWINTEX® (12x24 cross-scored) goes up faster, covers twice the area with one tile (also available 12x12 size, bevel butt or “E-Z” joint).

Sells on Sight and Sound! Patented linear-random perforated design. More restful, more pleasing to the eye. New, exclusive, really white finish! And prospects appreciate the way it puts a hush on noise!
A complete line of building products, nationally advertised under one famous name
INSULATING SHEATHING * ASPHALT ROOFING * MINERAL WOOL * FLEXCELL®
PERIMETER INSULATION AND EXPANSION JOINT FILLER * INSULATING ROOF
SLABS * GYPSUM PRODUCTS * HARDBOARDS * INSULATING SIDING * CEMESTO®
STRUCTURAL INSULATING PANELS * INTERIOR FINISHES * AND OTHERS

For Complete Information Contact Your Celotex Representative

Build better...build with genuine

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REG. U.S. PAT. OFF.
BUILDING PRODUCTS

THE CELOTEX CORPORATION • 320 SOUTH LASALLE STREET • CHICAGO 3, ILLINOIS

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The Celotex Corporation • 320 South LaSalle Street • Chicago 3, Illinois

APRIL 1957

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INSULATING SHEATHING * ASPHALT ROOFING * MINERAL WOOL * FLEXCELL®
PERIMETER INSULATION AND EXPANSION JOINT FILLER * INSULATING ROOF
SLABS * GYPSUM PRODUCTS * HARDBOARDS * INSULATING SIDING * CEMESTO®
STRUCTURAL INSULATING PANELS * INTERIOR FINISHES * AND OTHERS

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BUILDING PRODUCTS

The Celotex Corporation • 320 South LaSalle Street • Chicago 3, Illinois

APRIL 1957
When a project includes America's finest double hung window units — THRIF-T — it means substantial SAVINGS and a better finished result — and EVERYONE benefits.

**DEALER**
Enjoys Profitable Repeat Business

**CONTRACTOR**
A Sound Job in Less Time

**LENDER**
Marketability Based on QUALITY and EYE APPEAL

**HOMEOWNER**
Pride of Ownership, Comfort and ECONOMY

**QUALITIES of a CHAMPION**
This steadily spreading popularity of Thrif-T Window Units rests squarely upon VALUE. They offer all of the most modern advantages at an attractive installed cost. Their installation economy is sensational. Do yourself and the homeowner a favor by specifying Thrif-T Window Units. Then watch customer good will go up.

A substantial saving of assembly and installation time means a saving in the overall cost of a home. Every detail of Thrif-T Factory Fitted Window Units is aimed at SATISFACTION with ECONOMY.

**Here's How**

- Precision Machining — No Stopping to Plane or Saw.
- Easy — Quick Installation.
- Wide Blind Stops — Time Savers when Squaring Unit in Wall.
- Superior Balances — Help Make Installation Simple and Quick.
- Thrif-T WINDOW UNITS are PRESERVATIVE TREATED with WATER REPELLENT for LONG SERVICE LIFE.

**OTHER R&M MODERN WOOD WINDOW UNITS**
You'll be glad to know more about —

- EV-RI-WAY ALL-PURPOSE
- E-Z-VENT Awning
- SUP-R-OUT Removable
- E-Z-UP Double Hung

**SEE YOUR DEALER OR WRITE FOR LITERATURE**
Roach & Musser Co.
8812 Grandview Muscatine, Iowa
In 1957, homes built will be sold on the basis of exclusive features of the component parts. You can guarantee that the woodwork in your homes will qualify and at the same time enhance your reputation by choosing from the full line of BILT-WELL windows, cabinets and doors.

**New BILT-WELL Super 7**

**REMOVABLE WINDOW**

The new BILT-WELL Super 7 has all the outstanding features of the popular BILT-WELL Superior Window unit, PLUS the removable sash feature and the addition of flat overhead balances.

**7 Good Reasons Why Your Homes Should Feature BILT-WELL Super 7 Windows:**

- **Easily Removable**—Sash quickly removed from either side, without sacrificing weathertightness.
- **Unitized**—Sill design facilitates groupings.
- **Counterbalanced**—Flat overhead balances guaranteed for life of the unit. No cocking or sticking. Completely safe, smoother operation.
- **Weatherstripped**—Completely weatherstripped. Patented stainless steel jamb-liner. Head sill and check rail anodized aluminum alloy weatherstrip.
- **Durable**—All wood parts, water-repellent preservative pressure treated in strict accordance with NWMA requirements. Jams are 1 1/16" thick and sill 1 3/8" thick.
- **Standardized**—Fits all standard walls—brick veneer, solid masonry and wood stud walls with 3/8" lath and plaster, 1/2" or 3/4" dry wall and with either 1/2" or 25/32" sheathing.
- **Guaranteed**—Meets U.S. Dept of Commerce, Bureau of Standards requirements for weatherstripped double-hung wood windows. Also bears AWWI Seal of Approval.

**Standard Sizes**

We have carried out an extensive survey on the use of different sizes of double-hung windows over a period of several years. This survey has shown that the following 22 standard window sizes are specified in 90% of building applications. These 22 sizes CAN meet ALL of the requirements. However, BILT-WELL Super 7's are available in all of the popular sizes of the NWMA Standard List.

**ROUGH OPENING**—Add 7 inches to glass in width and 10 inches to glass in height. Add 6 1/2" to glass in width for each additional unit to arrive at multiple rough opening size.

**MASONRY OPENING**—Add 8 inches to glass in width and 10 1/2" to glass in height. Add 6 1/2" to glass in width for each additional unit to arrive at multiple masonry opening size.

Sash furnished two light or four light horizontally divided.

**GLAZED SSB GLASS**

<table>
<thead>
<tr>
<th>Glass Size Width x Height</th>
<th>Rough Opening Width x Height</th>
<th>Masonry Opening Width x Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 x 24</td>
<td>1'-11&quot; x 4'-10&quot;</td>
<td>2'-0&quot; x 4'-10 1/2&quot;</td>
</tr>
<tr>
<td>20 x 16</td>
<td>2'-0&quot; x 3'-6&quot;</td>
<td>2'-4&quot; x 3'-6 1/2&quot;</td>
</tr>
<tr>
<td>x 20</td>
<td>x 4'-2&quot;</td>
<td>x 4'-2&quot;</td>
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<tr>
<td>x 24</td>
<td>x 4'-10&quot;</td>
<td>x 4'-10&quot;</td>
</tr>
<tr>
<td>24 x 16</td>
<td>2'-7&quot; x 3'-6&quot;</td>
<td>2'-8&quot; x 3'-6 1/2&quot;</td>
</tr>
<tr>
<td>x 20</td>
<td>x 4'-2&quot;</td>
<td>x 4'-2&quot;</td>
</tr>
<tr>
<td>x 24</td>
<td>x 4'-10&quot;</td>
<td>x 4'-10&quot;</td>
</tr>
<tr>
<td>28 x 16</td>
<td>2'-11&quot; x 3'-6&quot;</td>
<td>3'-0&quot; x 3'-6&quot;</td>
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<tr>
<td>x 20</td>
<td>x 4'-2&quot;</td>
<td>x 4'-2&quot;</td>
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<tr>
<td>x 24</td>
<td>x 4'-10&quot;</td>
<td>x 4'-10&quot;</td>
</tr>
<tr>
<td>32 x 16</td>
<td>3'-3&quot; x 3'-6&quot;</td>
<td>3'-4&quot; x 3'-6 1/2&quot;</td>
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<tr>
<td>x 20</td>
<td>x 4'-2&quot;</td>
<td>x 4'-2&quot;</td>
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<tr>
<td>x 24</td>
<td>x 4'-10&quot;</td>
<td>x 4'-10&quot;</td>
</tr>
<tr>
<td>36 x 16</td>
<td>3'-7&quot; x 3'-6&quot;</td>
<td>3'-8&quot; x 3'-6 1/2&quot;</td>
</tr>
<tr>
<td>x 20</td>
<td>x 4'-2&quot;</td>
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<td>x 24</td>
<td>x 4'-10&quot;</td>
<td>x 4'-10&quot;</td>
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<tr>
<td>40 x 16</td>
<td>3'-11&quot; x 3'-6&quot;</td>
<td>4'-0&quot; x 3'-6&quot;</td>
</tr>
<tr>
<td>x 20</td>
<td>x 4'-2&quot;</td>
<td>x 4'-2&quot;</td>
</tr>
<tr>
<td>x 24</td>
<td>x 4'-10&quot;</td>
<td>x 4'-10&quot;</td>
</tr>
</tbody>
</table>

LU-BE-CO sizes are also available:

| 37 3/4" x 16"            | 3'-8 3/4" x 3'-6"            | 3'-9 3/4" x 3'-6 1/2"        |
| x 24                     | x 4'-2"                     | x 4'-2 1/2"                  |
| x 24                     | x 4'-10"                    | x 4'-10"                     |
Add variety and distinction to your homes with versatile BILT-WELL Awning Windows. Use the same basic units as awning, hopper or fixed units; as casements, or in combination with picture sash. Combine them in ribbons, stacks, groups, or use them singly.

Outstanding BILT-WELL Awning Unit Features

- Completely rolled-in anodized aluminum weatherstripped top and bottom of sash and sides of frame.
- Widest Choice of Operating Mechanisms
  - Jointed bar operator
  - Rigid bar operator
  - Lever operator
  - Nylon locking handles
- Easy to clean. Exclusive detach arrangement allows scissor arms or bar arm to be instantly detached from sash for easy cleaning of all glass area from inside.
- Simple Reglazing. Sash is built around the glass. No putty to fall out. Special wood moulding scored for easy removal with knife in case of glass breakage can be replaced after reglazing.
- Available with Storm Panels or Double Insulating Glass. Companion screens of wood or aluminum available.
BILT-WELL Cabinets provide more in “women-pleasing” features for your new home prospects and for YOU in time and cost saving advantages. They give you the styling, conveniences and accessories of the most expensive custom-built cabinets at just a fraction of the cost. And what’s more, you can assemble and install them in just twenty minutes per cabinet. Ask your lumber dealer today about BILT-WELL Cabinets for kitchens, bedroom storage walls and every other room in the house where storage is required.
New Exclusive Doors by BILT-WELL

Here is the first real innovation in door design since the flush door... the exciting BILT-WELL New Orleans and Belvedere Doors with beautiful decorative glass panels.

The decorative designs which will add a distinctive touch to every home you build is fired ceramic and is fused into the glass panel... no chance of chipping or peeling. Scrubbing or scraping will not mar their beauty.

Both the New Orleans and the Belvedere doors have veneered stiles, using waterproof glue. Rails are solid, all clear, kiln-dried Ponderosa Pine.

Ask your Lumber Dealer today about the full line of high quality BILT-WELL Woodwork for the home. Or mail the coupon below for specific information on any one of the BILT-WELL Products.

The BILT-WELL Line—WINDOW UNITS, Double-hung, Awning, Casement, Basement, Storm and Screen. CABINETS, Kitchen, Multiple-Use, Wardrobe, Storage, Vanity-Laboratory and Vinyl Counter-Tops. DOORS, Exterior, Interior, Screen and Combination.

Manufactured by:
CARR, ADAMS & COLLIER COMPANY
(Dubuque, Iowa)
DOORS
Folders available on "Tee-cor" hollow flush doors for interior or exterior use. Straddle moulding units are also described which allow for installation of glass panels in flush doors.—Morgan Co.

Circle No. 815 on reply card Section G

DOORS & FRAMES
Catalog gives specifications, sizes and installation details on completely packaged steel door and frame combination.—United Steel Fabricators, Inc.

Circle No. 816 on reply card Section G

DOOR UNITS
How to install assembled door and frame unit is described in 4-page brochure, which also lists features. Separate leaflet covers firm's double door unit.—Ready Hung Door Corp.

Circle No. 817 on reply card Section G

NOW! TEXTURED WOOD "SLIDE-N-FOLD" DOORS

The complete line of Decorator Styled Space Saving closet door units

Available in both "Bypassing" & "Slide-N-Fold"

Jamaica-Dors Are Trouble-Free and Easy to Install
A quality product of fine wood with selection of 6 decorator styled panels including WOODWOVEN and TROPICAL LOUVRES. All panels have excellent distributed VENTILATION and are available in 6 color choices, and a wide range of opening sizes. Carton packed, including hardware.

Write Today for FREE, Fact-Filled Folder!
Dealer & Distributor Inquiries Invited.

Bessler Disappearing Stairway Co.,
1900-A East Market St., Akron 5, Ohio
Please send free catalog, wall chart, prices and discounts on Bessler Disappearing Stairways.

Send coupon for details

Bessler Disappearing Stairway Co.,
1900-A East Market St., Akron 5, Ohio

Name
Address
City Zone State
LOOKING FOR LOW COST FIBERGLAS PLASTIC PANELS with NO SACRIFICE IN QUALITY . . . then you want SHEN-O-LITE

— in quality
— the leader — in beauty
— in service

Flat and corrugated panels in various lengths and widths for sky-lighting, sidewall lighting, office partitions, patio roofs, breezeways, awnings, etc. Flat panes for glazing. A variety of pleasing colors.

Meets Government Specifications

Wire—Write—Phone

Shenango Crafts, Inc.
West Middlesex, Pa.
Phone LA 8-3659

FIBER GLASS PANELS

Corrugated, translucent panels are shown in many bright colors in this brochure which also illustrates several interesting uses.—Alsynite Co. of America.

Circle No. B18 on reply card Section G

FIBER GL.'S PANELS

Corrugated glass fiber panels are shown in brochure. Covers variety of colors, sizes; gives features of product.—Shenango Crafts Inc.

Circle No. B19 on reply card Section G

FOLDING CLOSET DOORS

Applications and installation details of two- and four-fold closet doors are shown in color brochure.—Ceco Steel Products Corp.

Circle No. B20 on reply card Section G

FOLDING CLOSET DOORS

New booklet describes flush- or louver-type folding doors; gives installation data, application examples.—Fenestra Inc.

Circle No. B21 on reply card Section G

FOLDING DOORS

“Hufcor” laminated accordion doors—features and installation details—are shown in color brochure. Also available: folder on Ra-Tox woven-slat folding door units.—Hough Mfg. Corp.

Circle No. B22 on reply card Section G

FOLDING DOORS

“Ideas for Builders” brochure shows a number of Modernfold door applications in color; describes features and gives installation and specification data.—New Castle Products, Inc.

Circle No. B23 on reply card Section G

FLOORING

Catalog available on all types of resilient flooring in tile and sheet forms. Color ideas for attractive floors for all rooms of the home. Also illustrates uses in commercial construction.—Congoleum Nairn, Inc.

Circle No. B24 on reply card Section G

Ez-Way disappearing stairways

for new construction and remodeling

Model 18 and Model 178—folding stairways.
For rough opening 26’x54”; ceiling height 7’ to 9’.
Model 22—heavy duty, folding stairway.
For rough opening 30’x62”; ceiling height 7’ to 10’.
Model 20—sliding stairway.
A low cost unit for finished opening 24’x36”; maximum floor to floor height 9’.
Model 15—economy ladder.
For any opening 18” or wider; maximum floor to floor height 9’2”; particularly adaptable for installation in older homes; requires no alteration for the existing attic scuttle hole.

Write for name of nearest distributor.

EZ-WAY SALES, INC.
BOX 300-35, ST. PAUL PARK, MINN.
FLOORING
This colorful catalog illustrates the beauty and practicality of oak flooring. Also illustrates how oak floors can be finished to suit individual taste, and presents selection of distinctive styles. —National Oak Flooring Mfgs. Ass’n.
Circle No. B25 on reply card Section G

FLUSH DOORS
Rezo line of wood grid core doors, solid core doors and special doors is covered in attractive 8-page booklet. —Paine Lumber Co., Ltd.
Circle No. B26 on reply card Section G

GLASS
Catalog describes firm’s extensive line of translucent, figured and structural corrugated glass. It gives dimensions, advantages and functions of each product. —Mississippi Glass Co.
Circle No. B27 on reply card Section G

GYPSUM BOARD
This 8-page catalog gives specifications, application data and construction details on firm’s line of gypsum wallboards and sheathing. —Celotex Corp.
Circle No. B28 on reply card Section G

HARDBOARD
Full-color folder shows suggested uses and detailed application instructions on firm’s line of specialty hardboards. Includes new pre-finished, Sandalwood-colored product. —Forest Fiber Products Co.
Circle No. B29 on reply card Section G

HARDBOARD
“A Guide for Builders” is a detailed specification book on “Preswood” products as well as a “how to” guide. Has data on wainscots, floor under-layments and sidings. —Masonite Corp.
Circle No. B30 on reply card Section G

HARDWOOD FLOORING
“How to” literature for builders includes installation of plank, strip, block flooring; finishing and maintenance information. Also available: booklet illustrating firm’s flooring in full color. —E. L. Bruce Co.
Circle No. B31 on reply card Section G

Now you can specify Fleetlite Sliding Glass Doors or attractive Picture Walls that block winter winds and western dust storms yet bring outdoor beauty into any room. Your clients will appreciate the extra benefits of this quality engineered trouble-free construction.
Doors slide silently and easily on overhead ball bearings. Screens glide on nylon rollers. Doors interlock with double mohair weather stripping on all four sides. Specially designed aluminum extrusions provide rigidity and maintain alignment. You can specify plate glass or insulating glass up to one inch thick.

Achieve design harmony with matching Fleetlite double hung and sliding windows.

Please send literature on:
- Sliding Glass Doors
- Horizontal Sliding Windows
- Double Hung Windows
- Jalousie Windows and Doors

Name
Address
City State
residential steel windows

CASEMENT WINDOWS

Slim, modern styling that harmonizes with any type of architecture. Easy-opening vents can be washed from inside. Double contact weathering. Better ventilation. Inside screens and storm sash and complete inside-outside trim available. Muntin omitted types for large glass areas. Bonded, prime-painted finish for color-styling or NEW FENLITE Finish that needs no painting (special order).

PROJECTED (AWNING) WINDOWS

New Styles for 1957! Here's the beauty of large glass areas with slender, horizontal lines plus the convenience of awning-type, rain-shedding, draft-free ventilation. Easy to operate. Easy to clean from inside. Double-contact weathering. Available with inside-outside trim, screens and storm sash. Same finishes as Fenestra® Casement Windows.

WINDOWWALL (PROJECTED) WINDOWS

New Styles for 1957! Here's maximum view and daylighting with rain-shedding, awning-type draft-free ventilation. New design uses slim, strong 1" sections to provide large glass areas. Types and sizes shown for single glazing. Others available for ½" insulating glass, if desired. Same finishes as Fenestra Casement Windows.

BASEMENT AND UTILITY WINDOWS

Fenestra Basement and Utility Windows are available as complete package units—Window, Screen and Storm Panel (basement); Window and Screen (utility). Delivered completely assembled, with hardware attached, no loose parts.

Particularly designed for concrete block construction, but can be used in all other construction. Famous Fenestra quality throughout.
NEW! FOLDING CLOSET DOORS
(LOUVERED OR FLUSH)

New fashion in closet doors! A gentle finger-touch folds the doors back against the jamb for full opening. Quiet, trouble-free operation. Easy to install. Complete unit with hardware shipped in sturdy carton for easy handling. Available in 3' 0", 4' 0", 5' 0" and 6' 0" widths—or any combination—and 6' 8" or 8' 0" heights. Full or half-louvered and flush types stocked in light prime-painted finish. Simulated birch finish available on flush types on order.

1 3/4" FLUSH-TYPE SWING DOORS

For homes, apartments, offices, institutions. Top-quality, flush-type steel door offered at low cost in standard types and sizes. Comes complete with frame and hardware. Easy, quiet operation, with permanently attached sound-deadening material inside door. Lock punching is on the door center line to enable the door to be used either right or left hand by inverting.

STRAND ALL-STEEL GARAGE DOORS

Strong, galvanized all-steel construction. May be installed by one man with simple tools. Only 2" headroom required. Rubber weatherstrip seals bottom opening, can be trimmed to fit uneven floors. Door raised by heavy, adjustable springs at sides. Three sizes: 8' x 7' and 9' x 7' (canopy and track) and double 16' x 7' (track only).
A handy reference guide to Weldwood Products—the most complete line in the building industry

ADHESIVES
Contact Cement—nonstaining, instant bonding; for laminates, installing plywood without nailing—no clamps or presses needed.
Plastic Resin Glue—water-resistant; permanent bond for wood, other porous material; mixes with cold water.
Presto-Set Glue*—ready-to-use; in tubes or jars; for plastic, paper, cloth or wood.
Resorcinal Glue—completely waterproof; completely weatherproof; withstands cold, heat, acids, alkalis, fungus, and mold.
ARMORPLY*—plywood faced with any metal; strong, light and rigid; has metal's toughness, plywood faced with any metal; made to specification.

DOORS, FIRE!—combine positive protection and rich wood beauty; have exclusive Weldrok® incombustible mineral core; UL labeled for Class "B" and "C" openings. Guarantee covers replacement cost including hanging and refinishing. Booklet-1591.
DOORS FLUSH—(all with fine hardwood faces)
Hollow Core Door—1¼" or 1½" thick; all sizes; proven stability in exhaustive tests; may be painted or finished natural; for exterior, use 1½" only.
Solid Core Door—exterior or interior; hardwood or pine core; thicknesses from 1½" to 2½"; all sizes; crossbanded and laminated with waterproof glue; best of its type.

DOORS, MICA-FACED—The "Custom Royal." Lumber, hollow or Weldrok core flush door with faces of Micarta. Booklet-1601.

DOORS, MICARTA-FACED—For all Weldwood Chalkboard installations.

DOORS, METAL-FACED—Doors with Armorply facing; on special order. Send your requirements for all details.

CHALKBOARD—porcelain-surfaced steel bonded to plywood—metal backing; surface defies abrasion, chipping or cracking; in 4 shades of eye-pleasing gray and green and new "Projection White." Booklet-1403.
Aluminum Chalkboard Trim—for all Weldwood Chalkboard installations.

ALUMINUM TRIM—elegant, economical, attractive; for both Weldwood Chalkboard and Weldwood Contact Cement installations.

Tackboard—colorful bulletin board designed for use with Weldwood Chalkboard installations.

CONCRETE FORMS—see "Fir Plywoods—Plyform."

DOOR STOCK, CUPBOARD—wide variety of sizes, thicknesses, including door or core of nonwarping Novoply; good one or two sides; birch-faced; requires no finishing; won't warp, sag or bind. Booklet-1323.

DOORS, LOUVER—In fir and pine; wide range of sizes.

DOORS, SLIDING—Made of nonwarping Novoply for closet and wardrobe fronts. Complete kit includes track, hardware, etc. Available with birch faces.

DOORS, METAL-FACED—Doors with Armorply facing; on special order. Send your requirements for all details.

Tackboard—colorful bulletin board designed for use with Weldwood Chalkboard installations.

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EDGING—see "Flexible Wood Trim."

FIR PLYWOOD
Duraply®—Weldwood exterior plywood with tough, smooth overlay permanently bonded to face. Takes paint better, holds it longer. Weatherproof, easy to work. Also available lap-cut with furring strip. Booklet-1413.

Weldtex®—striated; butt seams don't show; won't check; made in both interior and exterior grades; easy to finish.

Exterior Douglas Fir—superior plywood for any purpose, including:

Plyform®—exterior for concrete forms; produces smooth surface; multiple re-use.

Plyshield®—"A" face, "C" back; all sizes.

Sheathing—"C" face and back, all sizes.

Underlayment—lies flat; resists warping and twisting; all sizes.

2 x 4 x 1 Panel—1½" thick panel that's combination underlayment and subflooring.

Texture One-Eleven—grooved every 2" to 4"; splitproof and punctureproof; ship-lapped edges; ½" thick; 16", 32", 48" width; 96", 120" length. Booklet 54-10.

Interior Douglas Fir—all grades and sizes including:

L-1R—Plyform made with new L-1R adhesive; gives many of the advantages of exterior-type plywood yet sells at interior grade price.

Lebanex®—5-ply, hardboard faced; tough and smooth to resist wear and denting; for concrete forms, table tops, sliding doors, etc.

Phylbase®—base for lino tiles, carpeting; backing for wall panels.

Phylform (interior)"—"B" face and back, all sizes.
Plypanel®—3 grades; for paneling, built-ins, counters, backing; sanded both sides.

Plyscord®—C.-D. grade; unsanded; low cost; cotton backing; 12" to 24" widths, 8' to 12' FLEXIBLE WOOD TRIM—Real wood veneer in FLEXIBLE MATERIALS—see "Flexwood;" for sheathing and underlayment; all sizes. FLEXIBLE WOOD TRIM—Real wood veneer in handy rolls to cover plywood edges. Many species; 1" wide—larger sizes for industrial use. FLEXWOOD*—veneer wood 1/8" thick on surfaces, wide choice of grain, figure; applied like wallpaper. Booklet-28.

HARDBOARD—Weldwood offers a complete line of standard, tempered, textured and perforated hardboards. Special fast delivery service on any type, variety, size. Booklet-1304. KALIBRANT®—clear, wear-resistant sheeting; color permanently fused to underside (pattern and color never show wear); 33 colors; ideal wall covering or upholstery fabric; less expensive utility grade, too. Booklet-147.

LUMBER—Weldwood is currently producing all common western species of lumber and invites inquiries on carload lots.

MARINE—Duraply, Douglas Fir, Philippine Mahogany, Samara and other hardwoods with 100% waterproof adhesive; will never rot or delaminate. Booklet-1446 for more details.

METAL-FACED PLYWOODS—see "Armorply."

MICARTA®—made by Westinghouse, distributed by Weldwood; highly durable and beautiful plastic laminate; resists chipping, denting, burning, grease or fruit staining; easy to clean; needs no refinishing; for table tops, backsplash and no-drip front edge all in one piece. Booklet-1415.

MOLDINGS
Metal—aluminum, faced with hardwood veneers; matches popular Weldwood veneers; 8" strips for corners, caps, dividers.
Wood—all-plywood Cove Moldings for cabinets, trim, etc. Solid hardwood moldings available, too. Booklet-1397.

NOVOLY™—see "Paneling," "Doors."

PANELING
Algoa Grade Hardwoods—carefully selected, matched veneers; uniform color and appearance; many fine hardwoods. Booklet-1457.
Architectural Grade Hardwoods—finest obtainable; superlative veneers, perfectly matched; in all fine woods. Booklet-1034.

Korina®—from the Belgian Congo; blond; complements modern or traditional.
Limbo—from Africa; blond, mahogany-style; fine grained figure.
Nekora®—blond; low-cost Japanese hardwood; highly figured grain pattern.
Samar®—low-cost African hardwood; interesting grain pattern; light reddish color.

Prefinished—completely and expertly factory-finished; just install. Panels include:
Plankweld™—7 woods; put on old walls or new studs—no furring; edge-grooved for neat joints; special clips eliminate nail holes.
V-Plank™—4 x 8" panels "v-grooved" for a random-plank effect; 13 beautiful hardwoods.
Colonial V-Plank—like V-Plank but specially "pegged" for plank appearance; 10 woods.

Specialty Paneling
Noveply—unique wood-plastic product; wood chips and flakes give mosaiclike effect; amazingly flat, easily fabricated; ideal for cores, sliding doors, wall paneling, partitions.
Planktex™—6" bands of striations alternating with the smooth Philippine Mahogany grain pattern; comes finished or unfinished.

SURFACE—low-cost panel with weathered, textured look; grain stands out from etched-out background; free of knots.

Surfwood—similar to Sea Swirl but with occasional knots; very low cost. Surfwood-Duplex—7/8" thick fir panel with one Surfwood face; combination ceiling and roof-decking for open-beam construction.
Surfplank—shiplapped, solid lumber paneling with Surfwood appearance.
Weldtex—the original striated paneling; interior or exterior grades; easy to install and finish; blends with modern or traditional. Weldtex Squares—Weldtex in 3 sizes of squares, from 11 7/8" to 24"; 5 16" thick.

PARTITIONS, MOVABLE—real wood beauty; panels have incombustible Weldrok core; units interchangeable; accessible concealed wiring. Booklet-1405.
PINE PLYWOOD—"Old Craftsman" brand, for cabinets, built-ins. All-pine construction; interior grade made with mold-resistant glue. Exterior also available. Paints faster, smoother; exceeds Pine Plywood Commercial Standards. Booklet-1695.

PLANKTEC™—see "Paneling."

PLASTIC MATERIALS—see "Kalistron," "Micarta."

PORC-LIN-PLY™—weatherproof porcelain panel for building fronts, or interior paneling; hardwood core—durable porcelain face—steel back. 9 standard colors. Booklet-1469.
SAMARA—see "Paneling."

SATINLAC™—see "Finishing Materials."

SHEATHING—see "Fir Plywood."

SIDING—see "Fir Plywood."—Exterior Weldtex, Duraply, Texture 1-11, Hardboard.

STORE-FRONT MATERIALS—see "Armorply."

VINYL PLASTIC—see "Kalistron."

WELDBORD—smoothly sanded all-hardwood panel that sells at a softwood price. No grain raise—perfect for painting.

WELDTEX™—see "Paneling."

FREE BOOKLETS!
To obtain any of the informative booklets listed above—or for colorful literature on any Weldwood product—write to: United States Plywood Corporation 55 West 44th Street New York 36, N. Y.

The Best Known Name in Plywood
United States Plywood Corporation • 87 Offices in Principal Cities
“TWINDOW”...the world’s brings many advantages

EVEN IN LARGE AREAS, the amazing insulating properties of Twindow—Pittsburgh’s windowpane with insulation built in—keep a room like this one more comfortable winter and summer. Twindow reduces window fogging and icing. It cuts heating and air-conditioning costs. And it provides the most convenient form of storm window insulation. Prospective home buyers and people interested in remodeling know that they are saved the labor of putting up storm windows in the fall and taking them down in the spring. Architect: Giorgio Cavaglieri, New York City.

THIS PATIO VIEW shows the clear vision possible with "the world's finest insulating glass"—Twindow. More and more people are demanding the advantages possible with Twindow. And they are impressed with the fact that Twindow costs no more than single-pane windows plus storm sash.
finest insulating glass... to this beautiful home

TWINDOW, as demonstrated here, adds to the beauty of the home's design. It opens the rooms to the fullest enjoyment of the outside view—whether it's an exceptionally delightful one, as here, or a modest garden scene. Moreover, Twindow minimizes cold air downdrafts. It muffles outside noises.

TWO TYPES OF TWINDOW®

METAL EDGE. Ideal for large windows and where maximum insulation is needed most. Constructed of two panes of 1/4" clear-vision Plate Glass, with a 1/2" sealed air-space between. Exclusive stainless steel frame means no bare edges to chip or mar. It means easier, quicker, and safer handling for the builder, too.

GLASS EDGE. Constructed of two panes of 5/8" Pennvernon—the quality window glass—with a 5/8" air-space between them. High insulating value makes these units ideal for modern window wall construction. Available in popular sizes for a variety of window styles.

See Sweet's Builders Catalog for detailed information on Pittsburgh Plate Glass products.

Build it better with Pittsburgh Glass

PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS · FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

APRIL 1957
FAMOUS low-cost VAMPCO ALUMINUM WINDOWS
NOW AVAILABLE FOR EVERY TYPE OF STRUCTURE

For modern beauty, functional design, structural strength, durability and low cost, architects and builders across the nation are turning more and more to Vampco Aluminum Windows. Available in residential casement and combination casement windows, intermediate projected windows, window walls of varying sizes and thicknesses, windows for heavy ribbon or glass block construction, basement and utility windows, and custom built windows, Vampco provides a full range of aluminum window types for residential, commercial, industrial and institutional buildings. Valley Metal Products Company is a member of the Aluminum Window Manufacturers Association and Producers Council and one of the few aluminum window manufacturers whose products meet F.H.A. approved specifications. For complete illustrated literature, mail coupon below today!

VAMPCO TRU-SEAL AWNING WINDOWS have recently been added to the ever-growing line of Vampco Aluminum Windows. Designed for use in both residential and commercial construction, Tru-Seal units are fully weatherstripped and are opened and closed by a highly efficient operator. They can be used individually as flankers for picture windows or combined with panels to form either curtain or window wall.
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**APRIL 1957**
# Wire Nail Estimating Data

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<th>Size and Kind of Material</th>
<th>Trade Name</th>
<th>Lbs. of Nails Required</th>
<th>Length of Nails</th>
<th>No. of Nails to Ea. Bearing</th>
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<td></td>
<td></td>
<td>12” Centers</td>
<td>16” Centers</td>
<td>24” Centers</td>
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<tr>
<td>1x 4 Boards and Shiplap...</td>
<td>8d common</td>
<td>60</td>
<td>48</td>
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*1x2 Furring on Brick Walls—100 Lineal Ft.—20d Cut Nails, Requires 1 1/2 lbs.*

**WALLBOARD**

| Base Per 100 Lineal Ft. | 8d Finish Requires 1 Lb. 16” on Centers. |
| Sides of Trim, Per Side of Inside Trim. | 4d Finish Requires About 1/2 Lb. Total. |
| 48” Wood Lath Per 1000 Lath. | 3d Fine Requires 7 Lbs. |
| Metal Lath Per 100 Sq. Yds. | 1” Staples Requires 12 Lbs. |
| or Metal Lath Per 100 Sq. Yds. | 1 1/2” No. 12 Hook Head Nails Requires 15 Lbs. |
| 1/2” Gypsum Lath, Per 100 Sq. Yds. | 1 1/2” x13 Gauge—5/16” Heads Requires 10 Lbs. |
| 1/4” Plaster Board, Per 100 Sq. Yds. | Smooth Diamond Points. |
| 13/16” Wall Board, Per 1000 Sq. Ft. | 1” x13 Gauge—5/16” Heads Requires 10 Lbs. |
| 1/2” Wall Board, Per 1000 Sq. Ft. | Smooth Diamond Points. |
| 1/4” Wall Board, Per 1000 Sq. Ft. | 4d Flat Head Nail Requires 5 Lbs. |
| 3/4” Wall Board, Per 1000 Sq. Ft. | 4d Flat Head Nail Requires 9 Lbs. |

**BATTENS**

WILL Require 1 1/2 Lbs. 4d Finish Nails Per 100 Lineal Feet.

For Various Styles of Wallboards, See Manufacturer’s Specifications for Recommended Nailing.
### ALUMINUM NAILS

<table>
<thead>
<tr>
<th>BUILDING MATERIAL</th>
<th>COVERAGE</th>
<th>LENGTH OF NAIL</th>
<th>TYPE OF NAIL</th>
<th>GAUGE</th>
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<th>16&quot; CENTERS NO.</th>
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<td>1 1/4&quot;</td>
<td>6d Wd. Sdg.—Skr. Hd.</td>
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<td>17/64</td>
<td>2000 3.3</td>
<td>1500 2.5</td>
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<td>5/16</td>
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Cedar Shakes—Single Course

Cedar Shingles (5 in. expos.)

Asbestos Siding—Face Nlg.

Asbestos Siding—Face Nlg.

Asbestos Siding—Face Nlg.

Asbestos Siding—Cnd. Nlg.

Asbestos Siding—Cnd. Nlg.

Asbestos Siding—Cnd. Nlg.

General Purpose

Barn Batt. Joist, Lining, etc.

Insulating Siding—Light

Insulating Siding—Dark finish

Gypsum Lath

Gypsum Lath

Gypsum Lath

Roll Roofing

Sq. Tab Shingles

Sq. Tab Shingles

Sq. Tab Shingles

Sq. Tab Shingles

Sq. Tab Shingles

Aluminum Roofing

Aluminum Roofing

Aluminum Roofing

Aluminum Roofing

Aluminum Roofing

Aluminum Roofing

Aluminum Roofing

Aluminum Roofing

ABBREVIATIONS:

Bvl. Sdg. = Beveled Siding

Cnd. Nlg. = Concealed Nailing

Csg. Hdl. = Casing Head

Skr. Hdl. = Sinker Head

Wd. Sdg. = Wide Siding

Scr. Gp. = Screw Grip

Chk. Hdl. = Checked Head

w/w/att. = With Neoprene washers assembled to nail

APRIL 1957
**RELATION OF GROSS VENTILATOR AREA TO NET AREA**

**FHA REQUIREMENTS**
Provide cross ventilation for all spaces between roof and top floor ceiling with corrosion-resistant 8-mesh screened louvers as follows:
- **ROOFS WITH SLOPES 2 IN 12 OR GREATER, 1/300th of the horizontal projection of the roof area over each space.** One-half the required ventilation shall be in the upper part of the ventilated space as near the high point of the roof as practicable.
- **ROOFS WITH SLOPES LESS THAN 2 IN 12, 1/150th of the horizontal projection area over each space unless a complete, continuous vapor barrier is provided, in which case use 1/300th.**

**FREE AREA VENTILATION GUIDE**
Square inches of ventilation required for attic areas

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**HOW TO USE FREE AREA VENTILATION GUIDE**
Using length and width dimensions of each rectangular or square attic space, find one dimension on vertical column, the other dimension on horizontal column. These will intersect at the number of square inches of ventilation required by FHA to provide 1/300th. Multiply this required ventilation by two for roof slopes of less than 2 in 12 without vapor barrier.

Remember:
1. Include overhang of roof area in measurement of attic areas.
2. At least 50% of the required ventilation must be in the highest part of the roof practicable.
3. Provide cross ventilation for each separate space.

**1/4" MESH SCREEN**
- Gross area = Net area

**1/8" MESH SCREEN**
- Gross area = 1.25 × Net area

**1/16" MESH SCREEN**
- Gross area = 2 × Net area

**LOUVERS WITH 1/4" MESH SCREEN**
- Gross area = 2 × Net area

**LOUVERS WITH 1/8" MESH SCREEN**
- Gross area = 2.25 × Net area

**LOUVERS WITH 1/16" MESH SCREEN**
- Gross area = 3 × Net area
When ornamental iron railings in stock sizes will not fit a particular job they can be "made to order" by the manufacturer. In order for the manufacturer to submit an accurate estimate or to proceed with the fabrication of the iron work preliminary job sketches with accurate dimensions and other pertinent data must be furnished. The following details show the procedure to follow to insure an accurate custom-built job. While the details and information shown are for entrance porches and steps the same methods also apply to all other locations where ornamental iron is to be used. For the names of manufacturers of ornamental iron work consult the yellow-pages of this Directory.

Either a sketch, as shown in the upper right-hand corner of this page, or a plan view layout with accurate measurements as indicated by the letters "W" and "L" should be submitted. If holes for newel posts are already in place—specify all rail dimensions.

For step railings which are to have a slanting hand rail, include a side view to show accurate masonry dimensions. In addition to the dimensions "W", "H", and "L" the width of the treads and height of the risers should be given.

Additional information should specify the type of rail with the number, design and location of all rail ornaments. Also specify the type and finish of newel posts and indicate if the newel is to have an extended leg or a floor plate.

Elevation drawing at left presents an example of important offset dimensions. For instance, between columns or at baseboard, show offset dimension affecting setback of bottom rail in relation to top rail. Also show setback, or projection of nosing, at top edge of platform to the wall or column.

Accurate measurements must be furnished if rail is to be curved. Indicate on the plan the dimensions "T", "C", "C'" and "L" if the rail is to follow an irregular curve. For a circular curve give the radius of the circle with dimensions locating exact center point in regard to other masonry details.

Plan above shows additional dimensions needed where bottom step has a bull nose end.

GENERAL

Consult manufacturers catalogs for stock sizes and designs of ornamental iron work. Many times slight alterations on the job during construction will eliminate the necessity of having the ornamental iron made to order.
### Wood Screw Data

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### Wood Screw Sizes

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<th>Gauge No.</th>
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<th>Maximum Head Diameter</th>
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Types of Hinges

- Offset hinge
- Butt hinge
- Loose pin hinge
- Semi-invisible hinge allows door to cover face of cabinet yet will open a full 270 degrees.
- Piano hinge
- Ornamental pin hinge
- Two types of invisible hinges

Door Hinging Methods

- Method of hinging doors to avoid showing a center mullion.
- An ideal solution for hanging three doors on a cabinet without mullions.

Details “A” show the less conventional methods of hanging cabinet doors.
Details “B” show methods of treatment where doors meet, allowing for expansion and contraction.

Various uses of pivot hinges for fine cabinetwork.
## Section C  Hardware & Building Specialties

### DIMENSIONS OF 1957 AUTOMOBILES

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<th>NAME &amp; MODEL</th>
<th>WHEELBASE (inches)</th>
<th>Wheelbase</th>
<th>OVERALL LENGTH (inches)</th>
<th>OVERALL WIDTH (inches)</th>
<th>OVERALL HEIGHT (inches)</th>
<th>DIAMETER (CURB TO CURB) (feet)</th>
<th>TURNING CIRCLE DIAMETER (CURB TO CURB) (feet)</th>
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# Section C  Hardware & Building Specialties

## DRIVEWAY DESIGN

### CLEARANCE LINES

- **Outside**: 37'-35
- **Inside**: 36'-35
- **GARAGE WHEEL BASE**: 12
- **Center of Curve Clearance Lines**: Path of car entering 20-25 radius.
- **Effective Gages**: Equivalents for Gages + 20.6.

### RECOMMENDED DRIVEWAY WIDTHS

Widths of curved and straight drives of both ribbon and slab types.

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<th>Wheelbase</th>
<th>Probable Front Overhang</th>
<th>Radius of Curve</th>
<th>Minimum Outside Clearance (D)</th>
<th>Offset Distance (F)</th>
<th>Minimum Ribbon Width (B)</th>
<th>Minimum Ribbon Spacing (C)</th>
<th>Overall Width (A)</th>
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The above table is for drives curving left. For drives curving right, add 6 in. to obtain widths and over-all surface widths.

**FOR STRAIGHT DRIVES**

Dimensions of straight drives are the same for all lengths of wheelbase.

| 18 | 40 | 96 | 24 | 34 | 82 | 30 | 28 | 88 |

Ribbon widths of 46 in. are considered to be the maximum that it is practical to build; therefore, no larger widths are shown.

April 1957
## DIMENSIONS OF 1957 AUTOMOBILES

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<th>OVERALL HEIGHT (inches)</th>
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Section C  Hardware & Building Specialties

### DRIVEWAY DESIGN

**CLEARANCE LINES**

**GARAGE**

**LENGTH WHEEL BASE**

**CENTER OF CURVE CLEARANCE LINES**

**20-25 RADIUS**

**PATH OF CAR ENTERING**

**PATH OF CAR LEAVING**

Wheel offset (F) and clearances (D) and (E) must be considered on curved drives.

---

### RECOMMENDED DRIVEWAY WIDTHS

Widths of curved and straight drives of both ribbon and slab types.

<table>
<thead>
<tr>
<th>WHEELBASE</th>
<th>PROBABLE OFFSET</th>
<th>OVERHANG CURVE</th>
<th>MINIMUM</th>
<th>RIBBON WIDTH (B)</th>
<th>OVERALL WIDTH (A)</th>
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<td>11</td>
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### FOR STRAIGHT DRIVES

Dimensions of straight drives are the same for all lengths of wheelbase.

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<th>WHEELBASE</th>
<th>PROBABLE WIDTH</th>
<th>OVERALL WIDTH</th>
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<td>96</td>
</tr>
<tr>
<td>60</td>
<td>10</td>
<td>96</td>
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</tbody>
</table>

Ribbon widths of 46 in. are considered to be the maximum that it is practical to build; therefore, no larger widths are shown.

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**Butt Hinge Data**

<table>
<thead>
<tr>
<th>Height of Door or Length of Transom</th>
<th>3' - 0&quot;</th>
<th>4' - 0&quot;</th>
<th>6' - 0&quot;</th>
<th>8' - 0&quot;</th>
<th>10' - 0&quot;</th>
<th>12' - 0&quot;</th>
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<tbody>
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<td>4</td>
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<td>4</td>
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<td>4</td>
<td>4</td>
<td>3</td>
<td>2</td>
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</table>

**How to Specify Hinges**

- Number (in pairs)—Either Ball or Oilite Bearings (if required)—Type of Tips—Type of Screws—Type of Hinge—Metal—Height—Width (required only for full mortise hinges)—Weight (regular or heavy)—Finish

**Template Hinges** are made to standard, templates or patterns (usually in accordance with government standards) to insure exact matching of hinge and its screw holes with metal doors and metal jambs fabricated by other manufacturers.

**Number of Hinges per Door**

- Varies with height of door
- Minimum of three hinges generally recommended for all doors

**Location of Hinges**

- All doors
- Number of hinges per door varies with height of door
- 2° to 2½" transom: 2 butt hinges
- 2½" to 3½" transom: 3 butt hinges
- 3½" to 4½" transom: 4 butt hinges

**Height (Length) of Each Hinge**

Varies with width, thickness, and material. (Note: X means extra heavy)

**To Determine Sizes of Butt Hinges**

Door sizes given are jamb opening dimensions.

**Clearances with Other Types of Hinges**

- Length of hinge
- Half surface
- Full surface
- Full surface (tubular steel doors)
- Half mortise

**Width of Full Mortise Butt Hinge**

Width = 2½" + Clearance + ⅝" = Usually = 2½" Clearance + ⅝"

Conversely, Clearance = Hinge Width - 2½" + ⅝" for doors thicker than 2½".

**Courtesy American Society of Architectural Hardware Consultants**
Section C  Hardware & Building Specialties

HARDWARE DATA

HAND OF DOORS

<table>
<thead>
<tr>
<th>Hand of Doors</th>
<th>Mortise Lock</th>
<th>Rim Lock</th>
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<tr>
<td>Left Hand</td>
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<td>Outside</td>
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<tr>
<td>Right Hand</td>
<td>Outside</td>
<td>Outside</td>
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</table>

<table>
<thead>
<tr>
<th>Left Hand Reverse Bevel</th>
<th>Outside</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right Hand Reverse Bevel</td>
<td>Outside</td>
</tr>
</tbody>
</table>

HAND OF CASEMENT WINDOWS

| Left Hand Opening Out | Outside |
| Right Hand Opening In | Outside |

CASEMENT WINDOWS
Specify whether in- or out-opening. Also applies to cremone bolts.
NOTE: These conventions are exactly opposite to those followed by the metal window institute.

CUPBOARDS, CABINETS, BOOKCASES
STANDARD BEVEL
NOTE: Refrigerator doors follow these conventions.

TYPICAL PLANS OF SLIDING DOORS

<table>
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<th>Single Sliding Doors</th>
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<tr>
<td>Jamb Bolt (Instead of Latch)</td>
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<td>FL Guide</td>
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<tr>
<td>Latch or Lock</td>
</tr>
<tr>
<td>Open Side Pocket</td>
</tr>
<tr>
<td>Wall Pocket</td>
</tr>
<tr>
<td>Center Stop on Head Jamb</td>
</tr>
<tr>
<td>FL Guide</td>
</tr>
<tr>
<td>Converging Guide on Door Edges</td>
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</tbody>
</table>

BI-PARTING DOORS—May have jamb bolts on both doors or latch (lock) at center.

<table>
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<th>Two Doors</th>
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<tbody>
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<td>FL Guides</td>
</tr>
<tr>
<td>Center Stop on Head or Angle Bumper on Side or May Be Used</td>
</tr>
<tr>
<td>FL Guides</td>
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</table>

<table>
<thead>
<tr>
<th>Four Doors</th>
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</thead>
<tbody>
<tr>
<td>FL Guides</td>
</tr>
<tr>
<td>Converging Guide on Door Edges</td>
</tr>
<tr>
<td>Angle Bumper Stop</td>
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<tr>
<td>Center Stop</td>
</tr>
</tbody>
</table>

BY-PASSING DOORS (Parallel Doors)

Two floor guides required for center door if stop is not used.
THREE DOORS

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Courtesy American Society of Architectural Hardware Consultants
INDUSTRIAL • COMMERCIAL

HEAVY DUTY DESIGN

Commercial and industrial fields are served for all applications in a great variety of heavy duty styles and sizes. Maximum strength and durability combined with functional design for manual, electrical or radio controls. Accepted service station, warehouses, factory installations including high lift and vertical doors. Any door manufactured to architects’ specifications.

RESIDENTIAL

GREATES T VARIETY

Ridge offers the greatest variety of residential styles and sizes in the industry. There are models with raised, flush and recessed panels to suit every style of architecture.

HIGHEST QUALITY

Quality lumber and expert craftsmanship combined to bring lasting beauty and efficiency. Exclusive “golden hardware” and “certified tension springs” are used on all doors.

FINEST SERVICE

Ridge management is continuously improving methods of production and distribution to meet the modern demands of the building industry. A new manufacturing plant is under construction which will have a capacity of 1000 doors per day.

RIDGE DOOR CO.
mommouth junction, new jersey

RAISED PANELS

are available for all sizes and models. Production facilities include an electronic gluing machine which assures a perfect product at an economical cost to give the utmost in style and lasting appearance.

GUARANTEED HARDBOARD

panels of these three types: Dorlux by Masonite Corporation, Dekadoor by U. S. Plywood Corporation, Coos Bay by Georgia Pacific Corporation. These panels are guaranteed not to split, crack or delaminate due to natural conditions of weathering exposure.

CERTIFIED SPRINGS

by Ridge are individually tested for pounds pull and recorded on a tag by the testing machine. Each spring is matched with a door by careful weight calculation to give the greatest efficiency of operation.

Ridge Door Company
Box A. L.
Mommouth Junction, N. J.

☐ Send me complete information on how I can establish a dealership for the Ridge Door Company in my area.
☐ Send me descriptive literature on complete line.

NAME

COMPANY

ADDRESS

CITY AND STATE
NEW... FIRST IN THE FIELD!

Copper comes out of the kitchen! Dexter's new Contemporary Copper lock line brings new warmth to the entire home, traditional or modern. Exterior parts are all solid copper—not plated. They're finished in Dexter's new tarnish-resistant Brite Copper or Satin Copper. The 2¾" roses are available in matching Copper or contrasting satin black finish. Accessory door and window hardware available in matching Copper finish.

The Lifetime Guaranteed tie bolt lock has pin tumblers cylinder, deadlocking or spring latch and "bull-nose" bolt. Available in key-in-knob models, passage sets and privacy sets. Easy to install, reversible for any hand door without disassembly. Requires only 1½" cross-hole.

CONTemporary Copper

By Dexter

No lock installs faster than a Dexter

New fruitwood-finished mounted displays available

Dexter Lock Division

Dexter Industries, Inc.  Grand Rapids, Michigan

In Canada: Dexter Lock Canada, Ltd., Guelph, Ontario
In Mexico: Dexter Locks, Pluta Elegante, S.A. de C.V., Mexico City
Dexter Locks are also manufactured in Sydney, Australia; Milan, Italy and Porto, Portugal.
Caldwell Sash Balances

Tape Balances

For Residential Windows

(4 to 26 lb. sash: type 242)

Popular residential size adopted by most large manufacturers of unit windows. Same high quality clock steel springs, high tensile tapes and heavy gauge housing used in our largest types. Volume production permits use in low-cost housing. Can be used singly with one equalizer spring per sash at very low cost.

For Commercial and Institutional Windows

(4 to 35 lb. sash: type 150; 23 to 50 lb. sash: type 154)

Ideal for schools, hospitals, institutional and commercial buildings. Exclusive, patented screwdriver adjustment feature. Every coiled power clock spring tested for accuracy before shipment. Compact design reduces head room under lintels and mullions to a minimum.

For Heavy Windows

(50 to 75 lb. sash: type CX; 59 to 100 lb. sash: type D)

Carefully engineered to meet exacting requirements of heavy windows, sliding panels and doors, dumb waiters and other counter-balancing applications. Types CX, CXT, CXAT, D and DO are adjustable.

For Special Conditions

Special face plates, loops, long tapes and even special balances can be furnished for unusual window conditions where standard balances will not suffice.

(Spiral Balances)

SPIREX... for residential windows

The only spiral balance on the market offering all of these advantages...

- Adjustable for Precise Tension—Can be adjusted after installation to save time in precision balancing.
- Smooth, Quiet Operation—Special coating insulates Spirex springs against noise and rust. Patented new design eliminates friction and raps.
- Positive Lifting Power—High carbon, finely tempered flat wire springs and patented new design provides positive lifting power.
- Can Be Installed with Sash in Frame—Saves time and labor. Reduces errors in installation.
- Easy to Tension—Only one turn of tensioning wire for each 6 to 7 inches of height, or 3 or 4 turns for average sash.
- Fits Standard Grooving—Fits any standard groove, round or square, 5 5/8" x 5 5/8" or 5 3/4".
- Protective Carton—Heavy jute board carton protects Spirex from damage in transit or on the job.

HELIX... for institutional and commercial windows

This heavy duty spiral balance specifically designed and built for heavy sash.

- Pretensioned at Factory—Will handle variations up to 3 lbs. without adjusting. Adjustment is provided, however, so that unusual variations can be easily compensated on the job.
- Locking Piece for Easy Installation—Allows lower portion of spring to extend out of tube so that attaching arm can be connected quickly and easily.
- Seamless, Rustproof Aluminum Tube—Positively eliminates dust, dirt and other foreign matter from reaching balance interior.
- Durable Torsion-Suspension Spring—Oil tempered, high carbon spring is both tension and torsion spring. Efficient and durable.
- Separate Attaching Arm—Drastically cuts costly installation time by permitting attachment after balance has been fastened in place.
- Graduated Torque Rod—Cadmium plated spiral torque rod has graduated twist to assure smooth, even, effortless operation throughout travel of sash.

Combination Balance—Weatherstrip

SPIRAFLEX... the NEW 1-piece weatherstrip with spiral balances

The new SPIRAFLEX is the only combination weatherstrip-sash balance that offers all these features...

- SPIREX SPIRAL BALANCES—Prevent creeping; assure smooth, easy operation.
- Enclosed Balances—Provides protection from moisture, and gives neat appearance.
- 1-Piece Aluminum Strip—Assures long lasting, efficient pressure seal.
- Outside Pressure Flange—Prevents sash from becoming paint sealed.

- Double-Ribbed Lower Section—Provides additional weather tightness and rigidity.
- Fast, Easy Installation—Makes possible a better window at reasonable cost.
- Noiseless Operation—Assured by silent Spirex balances.
- Fully Adjustable—Easily adjusted, if necessary, even after installation.

SPIRAFLEX units are made in sizes to fit any window up to 6'6" in height (134" sash, 144" or 34" parting bead).

The Caldwell Guarantee: All Caldwell balances are guaranteed to provide positive lifting power for the lifetime of the building. Caldwell is the nation's oldest sash balance manufacturer, and this guarantee is backed by a 68-year reputation for making quality products and standing behind them.

Our engineering department will welcome any opportunity to assist you with difficult window balancing problems. Additional information will be gladly furnished by the factory or your Caldwell representative.
Mark of a Modern Builder

More and more successful builders are discovering the sales appeal of Schlage 5-inch backset locks for flush doors . . . originally developed by Schlage to combine new locking convenience with new opportunities for individual lock styling.

Schlage 5-inch backset locks give builders new freedom and flexibility in lock placement . . . permit the many striking combinations of Schlage locks and escutcheons that establish a home's first touch of quality at the entranceway.

Modern builders give strong sales impact to the quality of their homes . . . when the immediate note of fashionable lock beauty is made possible by Schlage 5-inch backset locks.

Full Hand Freedom with Schlage's 5-inch Backset

Compare the difference between a standard backset and Schlage's 5-inch backset . . . and feel the extra hand space now possible for all doors throughout the home. The old-fashioned squeeze between door-jamb and lock too often caused bruised knuckles and scraped hands . . . until Schlage developed five full inches of hand freedom.

Send for New "Lock Fashions" Brochure #651 Y-4

For colorful applications of the Schlage 5-inch backset with Schlage residential lock and escutcheon designs, write today for this 4-color, 12-page brochure.
M-D SLIDING DOOR HARDWARE
Overhead Type

- Extra-heavy extruded aluminum track
- Silent, brass wheel bearing
- Positive, no-jump track feature
- Heavy-gauge cadmium-plated steel hangers with adjustable slot
- Noiseless, lifetime nylon wheels
- Smoothest, quietest operating

Installations at left and above show 3 ways plastic door guide set may be used.
Extra-sturdy extruded aluminum track for all doors from 1/2" thick, single or by-passing. Built-in, no-jump design.

M-D EXTRUDED ALUMINUM THRESHOLDS in 2 FINISHES
ANODIZED ALBRAS (BRASS COLOR) ALACROME (SATIN)


AP-118 Same as AP-3 3/4" except 1 1/16" high. Available in Alacrome (satin finish) and Anodized Albras (Brass color).

AP-158 An extruded aluminum threshold 1 11/16" wide with replaceable vinyl insert. Also comes in either Alacrome (satin finish) or Anodized Albras (Brass color).

M-D SQUAR-EVEL
Two tools in one. Blade can be adjusted for 45 degree angle, can be used as level only, or as square & level combined.

M-D EXTRUDED ALUMINUM LEVEL

MACKLANBURG-DUNCAN CO.
P.O. BOX 1197 • OKLAHOMA CITY 1, OKLAHOMA
M-D METAL MOULDING AND TRIM

All shapes available in ANODIZED ALUMINUM FINISH

M-D Moulding and Trim comes in a wide variety of shapes and sizes for all thicknesses of material. Available in permanent, high quality anodized aluminum finish—also furnished in polished aluminum, brass or stainless steel.

M-D HOUSE NUMBERS AND LETTERS IN 5 FINISHES

3 Popular sizes: 3¾", 2¾", 1¼"

Polished, solid brass, lacquered finish, in all 3 sizes. Highly polished stainless steel, in all 3 sizes. Permanent anodized black finish in all 3 sizes. Polished bronze, lacquered finish, in all 3 sizes. Brilliant, reflecting aluminum, in all 3 sizes.

HANDSOME M-D CAST ALUMINUM NUMBERS

5¾" high x ½" thick with ⅛" spacers—these are heavy duty cast aluminum with beveled edges—baked enamel black finish. Can be used with spacers for shadow effect or mounted flat. Individually packed in poly bag with screws and spacers for installing.

6789

Special white mounting board measures 21" x 7¼" x 1".

M-D SHELF BRACKETS

in 3 finishes

Available in ALBLACK (Anodized black color), ALBRAS (Anodized brass color), and ALACROME (Satin finish). Sizes 4", 5", 6", 8", 10", 12" & 20¾".

BUILDERS

For highest quality and dependability always specify M-D products. Sold by hardware, lumber and building dealers throughout the country.

DEALERS

Order today. Your order shipped promptly. All M-D products are fast sellers, nationally advertised.
Feature the Garage Door that sets the stage to SELL

- We’ll Show your salesmen how to prove quality with The “OVERHEAD DOOR
- Local newspaper Co-operative advertising available.
- Dramatic Ultronic (radio control) Demonstrator Dashboards available.
- Free literature and point of sale “famous trade-name” signs.
- Warranty - Service guarantee.

For 36 years...more people have bought
the homes you build!

Brand name products help sell homes...The "OVERHEAD DOOR" is America's best known garage door. Feature it at your next OPEN HOUSE...use it to prove the quality of your homes!

SALES-WISE BUILDERS know the value of famous name products—and capitalize on them. You can do the same—with The "OVERHEAD DOOR." As the largest moving part of the homes you build, its smooth action will serve to prove you build with the best products made! And that's only one of its advantages!

Overhead Door Corporation and its distributors assume complete responsibility for the satisfactory performance of The "OVERHEAD DOOR" in every installation. And it's backed with a one-year guarantee, service provided whenever needed, and parts available on 24-hour notice.

For information on how The "OVERHEAD DOOR" will help sell homes, contact your nearest distributor of The "OVERHEAD DOOR" or write us!

A few profitable distributorships are still available to people or firms interested in joining Overhead Door Corporation’s expanding organization. A complete line of doors, including Ultronic operation, in a complete range of styles and prices—by America’s pioneer and leader in upward-acting garage doors.

OVERHEAD DOOR CORPORATION
Hartford City, Indiana

Manufacturing Divisions: Hillside, N. J. • Nashua, N. H. • Cortland, N. Y.
Lewistown, Pa. • Oklahoma City, Okla. • Dallas, Tex. • Portland, Ore.

than any other brand!
Brand new from Kennatrack—Kenna-pak a prefabricated, adjustable sliding door wardrobe header assembly complete with steel header, Scottie Series 2050 hardware and wood nailing strips for wardrobes using 3/4" and 1 1/4" doors. Pre-assembled, Kenna-pak cuts labor and installation costs while adding to the beauty of sliding door wardrobe installations.

**Series 1900**

Kenna-pak steel header takes minimum headroom. Eliminates lacing and cutting of doors—standardizes all door opening heights.

**CUTS COSTS — SAVES LABOR — ADDS BEAUTY**

Parts vs. Pieces—You work with one prefabricated piece rather than many parts.

Uniform Openings—One height from finished floor for all standard openings.

Eliminates Fascia and Door Cutting—Trim is nailed directly to wall nailing, leaves normal 3/16" reveal. Conceals hardware. Minimum headroom allows full use of standard 6'8" doors.

Adjustable, one piece header and hardware for wardrobes using 3/4" and 1 1/4" sliding doors

Adjustable Kenna-pak is nailed flush with side jambs

One man raises Kenna-pak and jambs into place

With Scottie Series 2050 hardware set to doors a neat installation is completed.

**SLIDING DOOR POCKET**

**FOR 1 1/4" DOORS**

Series 800 for doors up to 100 lbs.

Series 900 for doors up to 150 lbs.


**Kennaframe®**

Patent Pending

Kennaframe solid brass accessories all standard finishes

Write for complete catalog

**Kennontrack® Corporation**

A SUBSIDIARY OF EKCO PRODUCTS COMPANY

ELKHART, INDIANA

In Canada: Kennatrack Corp. (Canada) Ltd., Toronto

AMERICAN BUILDER
WESLOCK

Profile of Beauty

matching cabinet hardware

WESTERN LOCK MFG. CO. "The Style Leader"
Manufacturers of Weslock Residential Locksets and Builders Hardware

GENERAL OFFICES: 211 NORTH MADISON AVENUE, LOS ANGELES 4, CALIFORNIA • FACTORY: HUNTINGTON PARK, CALIFORNIA

APRIL 1957
NOW! A Spiral Nail for less than the cost of a common nail

Jones & Laughlin introduces the new threaded-to-the-head "ARDOX" spiral nail to American markets. This superior nail, with all the advantages of extra holding power, ease of driving, and less splitting actually costs less than the familiar, smooth, straight-shank nail.

These established advantages are made possible by a major development in spiral nail-making technique, utilizing J&L quality, higher carbon steel.

Write for complete information on how "ARDOX" spiral nails can improve your operations and cut your costs. Write to the Jones & Laughlin Steel Corporation, Dept. 493, Pittsburgh 30, Pa.

Jones & Laughlin
STEEL CORPORATION - PITTSBURGH

INCCREASED HOLDING POWER
The "ARDOX" full spiral shank nail develops up to twice the holding power of equivalent common nails gives you stronger, longer-lasting construction.
The "ARDOX" Spiral Nail

This comparison of properties shows advantages of "ARDOX" spiral nails over one size of common nails only, 2½" x 10½ (8d). Other comparisons will show similar advantages over all sizes of equivalent common nails.

**Comparison of Properties**

<table>
<thead>
<tr>
<th>NAIL SIZE AND TYPE</th>
<th>Holding Power in Soft Woods</th>
<th>Relative force required to drive</th>
<th>Number of nails per lb.</th>
<th>% more &quot;ARDOX&quot; spiral nails per lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Immediate</td>
<td>After 30 days</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>8d Common Nail</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>94</td>
</tr>
<tr>
<td>8d Standard &quot;ARDOX&quot; Spiral Nail</td>
<td>143%</td>
<td>224%</td>
<td>70%</td>
<td>135</td>
</tr>
</tbody>
</table>

Note 1. These figures based on wood at 12%-18% moisture, which is the approved building material range.
Note 2. Withdrawal speed, 2" per minute.

**EASIER DRIVING**

Despite its greater holding power, the "ARDOX" spiral nail actually requires less driving force. It speeds construction, reduces operator fatigue. Laboratory and field tests prove that "ARDOX" spiral nails are as much as 30% easier to drive.

**LESS SPLITTING**

The "ARDOX" spiral nail turns like a screw when driven... threads its way into the wood with minimum fiber damage. The stiffer shank of the "ARDOX" spiral nail, with less bulk of metal, greatly reduces the tendency to split the wood.

**COST SAVINGS**

"ARDOX" full spiral nails, because the greater count per pound results in lower cost per nail, cost less per job than equivalent common nails. Additional cost savings result from lower transportation costs, reduced handling and storage charges.
Now! 15 Dependable Products from One Dependable Source...GABRIEL

Here's the line that sells easiest to home owners and builders who want plus-value in home building specialties! Each of these fast-selling Gabriel items is a cost-saver. Each points the way to construction short cuts...saves time...does the job better. Where quality counts, both you and your customer can count on Gabriel. It pays to stock the complete Gabriel line!

BASEMENT SASH
Aluminum or steel. Exclusive Side-Arm detail provides 4 positions for controlled ventilation...top or bottom opening...locks automatically when closed! 3 sizes, 2-light: 15" x 12" glass size; 15" x 16" glass size; 15" x 20" glass size.

UTILITY WINDOWS
Aluminum or steel. Easy to operate...rain-proof, draft-proof ventilation...require no maintenance. 3 popular models: 4-light, 15" x 20" glass size; 6-light, 12" x 20" glass size; 6-light, 15" x 20" glass size.

STEEL POSTS

The Ring's the Thing!
Vari-Post's exclusive ring-and-pin combination provides greater strength, greater safety.

LINTELS
For brick or block work. Engineered strength—rolled rib construction. Provides space for good bed of mortar. Costs less than ordinary angles per foot installed. Corrosion-resistant finish.

DOME DAMPERS
Chain or poker control. Sizes: 28" through 48" fireplace openings.

ASH PIT DOORS
Designed to embed securely in masonry. Closes tight. Sizes: 8" x 8", 12" x 8".

ASH DUMPS, double leaf, 4" x 8" opening

FOUNDATION GRILLS
Aluminum. 16" x 8" adjustable, with screen.

Also Soffit Ventilators and Roof Louvers.

JOIST HANGERS
For 2" x 6", 2" x 8", 2" x 10", 2" x 12", 4" x 8", 4" x 10", 4" x 12" joists.

SCAFFOLD BRACKETS

WINDOW BUCKS
For perfect basement window installation in poured concrete foundations. Available in standard basement sizes for all wall thicknesses.

AREAWALLS

Gabriel Steel Company
13705 Sherwood Ave.
Detroit 12, Mich.

AMERICAN BUILDER
Here's a "wall" that rolls up electrically for big-truck access to a fully sheltered loading platform . . . closes tight—electrically—in seconds.

It's a popular, efficiency-boosting design for buildings with heavy traffic. A design that calls for the rugged construction, smooth performance and appealing lines of Ro-Way overhead type doors.

Ro-way commercial doors are built to last with seasoned lumber and Masonite® Dorlux® panels. Mortise and tenon joints both glued and steel doweled for extra strength. Seal-A-Matic hinges, Taper-Tite track and ball bearing rollers to assure smooth, trouble-free operation and snug fit. Big, properly tensioned Power-Metered springs for easy action. Electric operators for fast, efficient service. Heavy gauge hardware both Parkerized and painted to prevent rust and the corrosion of salt air and industrial fumes.

Check into the Ro-Way line . . . you'll like their wonderful features. Models for commercial, industrial and residential buildings . . . standard and special sizes to meet any design problem.
ALUMINUM Nails
THEIR USE DENOTES QUALITY CONSTRUCTION
When you use economical Nichols "Never-Stain" Aluminum Nails that give lifelong RUSTPROOF protection against stains and streaks on the exteriors of the homes you build, you are insuring your prestige for the future in your community.

No other building product that costs so little does so much for you. If you have not used "Never-Stain" Aluminum Nails, a trial will convince you!

- RUSTPROOF — protect the beauty of the homes you build for years to come.
- EASY TO DRIVE — made of strong aluminum alloy with etched finish for great holding power.
- SAVE — expensive premature repainting.
- SAVE — countersinking and puttying cost.
- AVAILABLE in "packaged for the job" dustproof containers and in 50 lb. cartons in a complete range of types and sizes.

and...

ALUMINUM building corners
- RUSTPROOF — will not stain or streak house siding.
- MODERN — "straightline" design eliminates "gingerbread" effect of other corners. Practically inconspicuous when installed.
- COMPLETE range of sizes.
- PACKED in sturdy dust, damage-proof boxes containing 100 corners.

nichols
BUILD profits prestige good will with...

nichols
ALUMINUM Nails

10 Reasons Why the BIG Demand is for Kinnear Rol-TOP Doors

Wood or All-Steel Doors
1. Kinnear all-steel Rol-TOP Doors feature rugged 16-gauge sections that interlock from end to end, for smooth hinging action.
2. Steel door sections are hot-galvanized (1.75 ounces of pure zinc per square foot, A.S.T.M. Standards.)
4. Rol-TOP Doors open easily on ball-bearing rollers, "boosted"

by Kinnear's famous single-shaft torsion spring that assures uniform operation.
5. Whether Rol-TOP sections are of high-quality steel or finest kiln-dried lumber, any number of panels in each section can be prepared for glass.
6. Kinnear's own "Keystone Seal" design and adjustable latching strips assure snug, weather-tight closure for both wood and all-steel Rol-TOP Doors.
7. Kinnear Motor Operators, with push-button controls wherever desired, are easily added for maximum savings in time, steps, and effort.
8. Kinnear doors are registered —detailed drawings are kept in fire-proof vaults, assuring quick, accurate availability of parts even after many years of service.
9. Kinnear manufactures doors exclusively! Through more than half a century, Kinnear has proved the many advantages of using doors designed and built by door specialists.
10. Complete range of sizes offers correct answer to any door need.

Write for the new catalog on Kinnear Rol-TOP Doors for industrial, commercial, and residential needs.

The KINNEAR Manufacturing Co.
1560-80 Fields Ave.
Columbus 16, Ohio
1742 Yosemite Ave.
San Francisco 24, Calif.

nichols
ALUMINUM building corners

nichols
WIRE & ALUMINUM CO., DAVENPORT, IOWA
World's Largest Manufacturer of Aluminum Nails.
VENTILATORS . . . World's Largest And Most Complete Line

Stationary Triangle Ventilators
Adjustable Triangle Ventilators
Under-eaves Ventilators
Brick & Cement Black Ventilators
Foundation Ventilators
Clothes Dryer-Vents
Miniature Ventilators

BY-PASSING DOOR AND POCKET-DOOR HARDWARE SETS
Complete line for all types of by-passing and pocket doors . . . steel and aluminum in any price range.

EXTERIOR BUILDING PRODUCTS
Awnings and canopies (including commercial types)

BUILDING PRODUCTS
FOR RESIDENTIAL, COMMERCIAL AND INDUSTRIAL USES

CLOSET ACCESSORIES
Adjustable Closet Shelves
Linen Closet Shelves
Shoe Racks
Adjustable Closet Rods

KITCHEN ACCESSORIES
Package Receivers
Clothes Chute Doors
Access Doors

Air Control Products, Inc.
1657 Lee Street
Coopersville, Michigan
Modern cabinet hardware  ... practical, beautiful

Here are two examples of Stanley cabinet hardware styled for the modern home buyer.

Accent hardware is new, features bright chrome or brass on contrasting black back-plates. Solid brass hardware is a proven salesmaker — an eye-taking "plus" feature for your homes. Both lines reflect Stanley's wonderful reputation for fine, lasting quality and discriminating taste.

"Floating" magnetic catch is easy to apply, adjusts for warping or shrinkage.

Streamlined capped covers on semi-concealed hinges. All standard finishes.

There's a Stanley style for every home, modern or traditional. Insist on Stanley. Home buyers will appreciate your extra consideration.

Ask your dealer about Stanley's complete line of cabinet hardware. Or write for catalog to Stanley Hardware, Division of The Stanley Works, 104 Lake St., New Britain, Connecticut.

AMERICA BUILDS BETTER AND LIVES BETTER WITH STANLEY

This famous trademark distinguishes over 20,000 quality products of The Stanley Works—hand and electric tools • drapery, industrial and builders hardware • door controls • aluminum windows • metal parts • coatings • steel and steel strapping—made in 24 Stanley plants in the United States, Canada, England and Germany.
MILCOR® Steel Building Products

Metal Lath and Accessories... for fire-safety, permanence, lasting beauty

MILCOR METAL LATH
Metal lath and plaster affords the finest fire-safe construction. There is a complete selection of Milcor Metal Lath types: diamond expanded, self-furring, full rib lath, 5/8" rib lath and 1/2" rib lath. All are made from Copper Bearing Steel, painted after fabrication. Diamond expanded and self-furring lath are also made from Galvanized Steel. Each bundle of Milcor Metal Lath (except 5/8" rib lath) is marked on one end with a paint stripe for quick identification of the weight of metal from which it is fabricated.

MILCOR CASING BEADS
Provide protection around door and window openings. Applied before plastering. Rigid nailing flange insures uniform fit. Painted number 1. Bundled to be used as needed. Number 2, (expansion wing), is finished edge Corner-Ex is the best reinforcement for plastered inner corners. Corner-Ex accurately into the corner and helps maintain the correct angle and shape. Design and contour eliminate any projections that could interfere with plastering. Made of Copper Bearing Steel, painted after fabrication. Sizes: 21/2" x 21/2" x 96" and 3" x 3" x 96". Wired together in bundles of 25 pcs. each. Packed three bundles (75 pcs.—600 ft.) per carton. Weights per 1000 lin. ft.: 2"—100 lb.; 3"—140 lb.

MILCOR CORNER-EX
Finished edge Corner-Ex is the best reinforcement for plastered inner corners. Corner-Ex is accurately into the corner and helps maintain the correct angle and shape. Design and contour eliminate any projections that could interfere with plastering. Made of Copper Bearing Steel, painted after fabrication. Sizes: 21/2" x 21/2" x 96" and 3" x 3" x 96". Wired together in bundles of 25 pcs. each. Packed three bundles (75 pcs.—600 ft.) per carton. Weights per 1000 lin. ft.: 2"—100 lb.; 3"—140 lb.

MILCOR CLEAN-OUT DOOR
Convenient for removing accumulations of chimney debris. Door catch provides positive lock, prevents door from being blown open by down drafts. Milcor design permits lasting freedom of operation. Wide flanges on frame simplify installation. Stamped from high grade, 14 gauge, corrosion bearing steel sheets. Furnished painted. Size 8" x 8". Packed six doors per carton—shipping weight 19 lbs.

MILCOR STEEL ACCESS DOORS
For easy access to utility systems without damaging walls. Door opens to 175°. Door panel removable. Flash, screwdriver operated, cam type locks included. Key operated cylinder lock furnished, if required. At slight extra charge, Door panel made of 14 gauge steel, housing of 16 gauge steel. Grey prime coat painted. Sizes: 8" x 8" to 24" x 36". Packed one door per carton.

STYLES: For plastered surfaces: Style "X" with expansion wing. Style "L" with solid flange. For non-plastered surfaces: Style "A". (Write for information on Style "A" door for acoustical tile installations.)

Part of the more than 4,000 Milcor Products for the building industry
Write for Milcor Catalogs: No. 254 — Milcor Metal Lath and Accessories
No. 306 — Milcor Clean-Out Door

INLAND STEEL PRODUCTS COMPANY
DEPT. P. 4025 WEST BURNHAM STREET MILWAUKEE 1, WISCONSIN
ATLANTA 3, GA. 828 Cates St. E. — BOSTON 10, MA. 2130 Park St. 
Baltimore 5, Md. 5309 Polkis Highway BUFFALO 11, N. Y. 64 Rapid St. • CHICAGO 9, ILL. 4301 S. Western Ave. 
CINCINNATI 29, OHIO 3200 Spring Grove Ave. • CINCINNATI 7, OW. 1551 E. 30th St. • DALLAS 3, TEXAS 5032 Dyer St. • DENVER 20, CO. 240 Holly • DETROIT 2, MICH. 690 Amsterdam Ave. • KANSAS CITY 41, MO. • P. O. Box 938 • LOS ANGELES 56, CALIF. 4803 E. 49 St. • NEW YORK 17, N. Y. 230 Park Ave. • ST. LOUIS 10, MO. 4215 Clayton Ave.
Sash-balance combination for "on-site" installation...

Sash-balance and weatherstrip combination for "on site" installation. The builder's choice for easy installation, reliability, efficiency and economy. Easy to install in new work or old windows. Complete sash-balance and weatherstrip combination unit. The original and most copied spring sash-balance unit on the market—proven and tested throughout America on over 5 million windows for nearly 20 years.

ONE PIECE combination unit...

Especially developed and designed for pre-fit window manufacturers. A high-quality unit to give unparalleled service at the exceptionally low cost. Now available to manufacturers of pre-fit windows; completely assembled for ease and economy in plant assembly.

"MASTER THRIFT" economy unit...

An ideal unit for pre-fit windows. The "Master-Thrift" offers a one-piece sash-balance and weatherstrip combination at a low, low price. It gives all the advantages of the popular Master line, plus an efficient, easy-to-install sash-balance. This fine unit is offered unassembled or assembled with flocked springs.

OTHER MASTER EQUIPMENT for:

- Double hung wood windows
- Casement-awning — hopper wood windows
- Sliding wood window sash
- All wood doors
- Metal windows and doors
- Brass and aluminum thresholds
- Write for free literature

MASTER METAL STRIP SERVICE, Inc.
1720 North Kilbourn Avenue
Chicago 39, Illinois
OVERHEAD SECTIONAL GARAGE DOORS

STOCK SIZES

<table>
<thead>
<tr>
<th>Size</th>
<th>Sturdy</th>
<th>Triline</th>
<th>Leveline</th>
<th>Keyline</th>
<th>Raised</th>
<th>Panel</th>
<th>Flush</th>
</tr>
</thead>
<tbody>
<tr>
<td>8' x 6'6&quot; x 1 1/2&quot;</td>
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<td>9' x 7' x 1 1/2&quot;</td>
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Flush doors—solid panel or glazed at factory. Available any size, any quantity.

In addition to Sturdy door stock sizes shown, doors are made in any size, shape or design for any purpose. Doors larger than 12 x 12 should be equipped with chain lift or Electric Operator. Center Track for Wide Doors.

SEMI-STOCK SIZES

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Wedge Tight Hardware with Extension Springs SHOWN (Torsion Springs also available). Vertical tracks slope away from jamb approximately 1/2 per door section, providing the Wedge Tight action, tight closure and easy operation. Hinges progressively offset to conform to slope of track.

4" HEADROOM HARDWARE

For use in 4" headroom, gets door out of opening.

HIGH LIFT TORSION SPRING HARDWARE

STEEL JAMB MOUNTING

Beautiful Custom Door Effects

Every Door Different

Various Rosettes and Half Round Strips Stocked by Dealers make possible a different design for every door of any style shown. By using color contrasts an endless variety of stylized doors are possible.

WRITE FOR COMPLETE FREE CATALOG

calder MANUFACTURING CO. LANCASTER 13, PENNA.
MORE for your Customers...

A Bilco Basement Door opens up the basement for modern living — gives your customers the usefulness, convenience and safety that only direct access can provide. All metal and permanent, a Bilco Door is your most powerful — most appreciated — selling feature.

LESS WORK for You!

Now with new Bilco Stair Stringers you can build the steps under Bilco Doors faster . . . and at less than 1/3 the cost of masonry steps. Formed steel stringers are slotted to receive standard 2” x 10” wood treads.

THE BILCO CO., DEPT. 711 NEW HAVEN, CONN.

Please send me complete information about BILCO Stair Stringers and Basement Doors.

I build □ 1-20 □ 20-100 □ 100-500 houses

NAME □

ADDRESS □

CITY □ STATE □

Sold by Lumber & Building Supply Dealers.
CABINET HARDWARE
Cabinet hardware, in a variety of styles and finishes, to fit any decorative scheme is illustrated in this colorful 20-page catalog. Includes matching knobs, pulls and hinges in traditional and contemporary designs.—Amerock Corp.

Circle No. C7 on reply card Section G

REVOLUTIONARY!
LoManCo Sectional Louvers

Sections of a large louver are assembled quickly using slip-joint fasteners to hold them together.

Even a large model is easy for one man to handle and install without any assistance.

Introducing an entirely new concept of louver design and construction. Louvers made up of sections—which can be used in different combinations to make up ventilators with from 23 to 614 sq. inches of free area, from 2 to 12 feet in base length...which can be easily assembled and installed by one man in a few minutes...which can be installed in the rough opening either as one unit or piece-by-piece!

AN AMAZINGLY VERSATILE NEW DESIGN
By combining the 8 basic 2 ft. sections of the new LoManCo Sectional Louver in different ways, a builder can make up over 25 triangular and odd-sized ventilators. Automatically, when a builder has one set of these versatile louver sections he has a ventilator for use in any one of a hundred different ways—for standard gable end installations...for problem type, hard-to-fit installations. No other product on the market answers so many ventilating needs so well.

A QUALITY PRODUCT
New LoManCo Sectional Louvers are made of heavy gauge, rust-proof aluminum. Each section is completely assembled, and comes with 8x8 mesh bug screens installed. When sections are to be used together, specially designed aluminum slip-joint fasteners fit over the flashing edges, holding sections firmly together.

AVAILABLE IN COMPLETE SETS OR BY INDIVIDUAL SECTIONS
New LoManCo Sectional Louvers may be purchased in complete 8 piece sets, by individual sections, or in 2, 4, or 6 section sets to meet specific ventilating needs. They are available for both 4" and 5" rise per ft. roof pitches.

Get all the Facts about the building industry’s most revolutionary new idea in ventilation. Ask your jobber or dealer for complete information, or write today for literature and details.
INOCULATE YOUR HOMES AGAINST...

"SIDING MEASLES" with

MAZE

STORMGUARD

T W I C E - D I P P E D

IN MOLTEN ZINC

THERE'S NOTHING LIKE 'EM!

✓ WON'T RUST, STAIN or STREAK
✓ HARD STEEL CORE ... DRIVE BETTER ... HOLD TIGHT!
✓ STRONGER THAN ALUMINUM ... COST ABOUT 1/2 LESS!

Protect the houses you build from ugly, damaging "Rust-Spots" with Maze STORMGUARD nails. From Coast-To-Coast . . . positive All-Weather and Salt-Air protection!

Win customer satisfaction and F.H.A. approval. Remember—STORMGUARDS are dipped in Molten Zinc . . . not once, but TWICE!

FOR ALL EXTERIOR WORK

- ROOFING
- SIDING
- TRIM

A TYPE FOR EVERY NEED...

Anchor (ring-shank), Spiral, Barbed, Plain Shanks...
Also Colored Siding Nails—11 stock colors... Full Range Of Sizes!

Handy-Packed 5 LB. or 50 LB. BULK CARTONS

WRITE FOR FREE HANDBOOK AND SAMPLES

NAME
FIRM.
STREET.
CITY.
STATE.

"IT PAYS TO BUY MAZE"

W. H. MAZE Company

PERU 3, ILLINOIS • PHONE 298

More and more
HOME BUYERS

Look for this
MARK OF QUALITY

They know a
RAYNOR WOOD SECTIONAL OVERHEAD DOOR

Means "Built-in" Quality

The homes you build are under sharp scrutiny by prospective home buyers. They're looking for quality and they see it at first glance when you include a Raynor overhead garage door in your design. Raynor doors represent the finest in harmony of design and quality construction...they are engineered to provide years of effortless operation and lasting beauty.

Check your telephone directory for the Name of
Your Nearest Representative
or write to

RAYNOR MANUFACTURING COMPANY

Dept. AB-2, Dixon, Illinois

BUILDERS OF A COMPLETE LINE OF WOOD SECTIONAL OVERHEAD DOORS

C34
The Weatherproof Products Corporation
Now Gives You Two New Labor-Saving Units Plus Features That Will Sell Houses

Hettinger's

SNAP-TITE
(Patent Applied For)

Metal Weatherstrip and Silent Glide Sash Balances for Removable Double Hung Window Units—Unit No. 466A

Women all across America are demanding removable windows that can be taken out or put in for washing and painting.

Step ladders and broken legs are a thing of the past.
Better builders are giving the women what they want, and the women know best about windows.

- SNAP-TITE can be taken out or put in at any given point.
- The sash engage and disengage the balances automatically.
- It is weatherproof and velvet smooth in operation.

Windows equipped with SNAP-TITE will be the leading windows for 1957 because there is a big demand for better windows, just as there is a big demand for better homes.

Insist on SNAP-TITE.

Sell window units and homes faster by using windows equipped with SNAP-TITE.

Hettinger's

TRIPLE SEAL
Production Unit 466BA

is the combination double hung window unit that you have been looking for and will be highly interested in because the SILENT GLIDE balances are attached to the side channel and are designed for fast assembly of set-up time on window units. They are made of the finest heavy gauge aluminum to withstand years of service—They are velvet smooth in operation and are weatherproof.

Hettinger's TRIPLE SEAL Production Units 466BA are low in price because they eliminate those many service calls and the dissatisfaction that many have experienced with other types of removable windows.

FOR QUICK DELIVERY
CONTACT YOUR LUMBER DEALER OR YOUR MILLWORK DISTRIBUTOR

FOR SPECIAL INFORMATION
WRITE US DIRECT

The Weatherproof Products Corporation
Kansas City 14, Missouri

APRIL 1957
Cut installation time in half!

IMMEDIATE DELIVERY

COMPLETE PRE-ASSEMBLED SET

Includes aluminum jamb cover, steel flocked spring balances, spring covers, covers riveted permanently.

One piece for each side of double hung window! Just fasten the sash and the job is done. Installation time is half! Speeds window production, too! Increases profits! Complete range of sizes for all frame openings!

Gives silent dependable operation plus tightest possible seal. Check with us today for prices.

SEND FOR THIS FREE CATALOG

CENTRAL METAL STRIP CO.
4343 N. WESTERN AVENUE • CHICAGO 18, ILLINOIS • JUniper 8-8036

USE GENUINE MOLLY

THE PERFECT FASTENER
To hold ANYTHING Securely in Hollow Walls, Floors and Ceilings

Unlike nails and screws, Molly allows you to install fixtures securely and exactly where you want them—not where studs are. Molly ends loose fixtures, crumbled plaster, broken walls. Molly reinforces the area in which used, won’t pull through. Unlike other types of fasteners, Molly anchorage is permanent—fixtures can be removed and replaced in the same anchor. Molly is inexpensive and money-back guaranteed.

Write for Free Folder

ALWAYS ASK FOR GENUINE MOLLY SCREW ANCHORS
MOLLY CORP. • DEPT. A-40 • READING, PA.

- ALL FROM ONE DEPENDABLE SOURCE

Reddi-Mount
The FREE-WHEELING LOCK

The only cylindrical lockset of its kind that installs as one unit!
Always in perfect alignment • 5-pin cylinder • Factory pre-assembled
Free-wheeling knob spins when locked • Fully guaranteed
Available with solid brass, aluminum or bronze trim
Unlocks automatically by turning inside knob
Also available with deadlatching feature
and long backsets from 5" to 18"

PAT. NO. 2,071,109 (OTHER PAT. PEND.)

AMERICA'S MOST BEAUTIFUL LOCKSET

MANUFACTURED BY J. CHESLER & SONS, INC. BROOKLYN 37, N.Y., U.S.A.
IN ALL MODERN FUNCTIONS AND POPULAR FINISHES

Praised for Beauty

Preferred for Value

NATIONAL LOCKset®... first choice of the discriminating builder and buyer alike. Whether eye-pleasing beauty, precision engineering or ease of installation is the distinguishing factor, you’re sure to select NATIONAL LOCKset as America’s Outstanding Lockset Value. And why not? NATIONAL LOCKset costs but a few pennies more than the cheapest, and dollars less than the highest priced lockset on the market. Send for Catalog No. 400 describing the complete lockset line and installation tools.

Specify it with confidence ... Install it with pride

NATIONAL LOCK COMPANY
ROCKFORD, ILLINOIS • MERCHANT SALES DIVISION

APRIL 1957
**GARAGE DOORS**

Literature includes four-page catalog with descriptions and illustrations of residential overhead-type door models and eight-page catalog on commercial and industrial doors.

—Ridge Door Co.

**GARAGE DOORS**

Brochure features Ro-Way line of overhead-type garage doors for commercial, industrial and residential use.

—Rowe Mfg. Co.

**GARAGE DOORS**

Catalog for 1957 illustrates and describes "Glideover" line for home, commercial and industrial uses. Shows designs, dimensions, installation details.

—Wagner Mfg. Co.

**GARAGE DOOR OPENER**

Brochure lists features of electronic operator and explains how it works.

—A. E. Moore Co.

**GLASS HARDWARE**

Full line of hardware for rolling glass doors includes prefabricated anodized aluminum frames for cabinets is described and detailed in this catalog. Accessories, too, such as bumpers, locks and pulls are shown.

—Designware Industries, Inc.

**HARDWARE**

"For a Grand Entrance" is color catalog showing firm's line of locks, handle sets, screen and combination units, door closers, installation tools.

—Dexter Lock Division, Dexter Industries, Inc.

**HARDWARE**

New four-color catalog incorporates firm's "400" line of locksets and accessories. Contains technical information, describes installation aids.

—Kwikset Locks, Inc.

**ALLITH HARDWARE**

ALLITH hardware works with equal efficiency on either custom or mill-made doors. All working parts simple and sturdy—no springs to stretch or loosen. All hardware parts inside and protected from weather.

Unit shipped complete to the last screw. Quickly and easily installed. Standard set fits any opening up to 9' wide x 7'6" high when doors do not exceed 275 lbs. Other sets available for openings up to 10' wide x 10' high. Write for details.

**COAST-TO-COAST**

**NATION'S BEST**

**Lux-Right AREAWALLS**

COMPLETE LINE • ALL SHAPES • ALL GRADES • ALL SIZES

Originators and Largest Producers Of Steel Areawalls

We fabricate the most complete line of ready-made, easy-to-install, galvanized, one-piece steel window well walls. Any size, height, shape or grade, top-quality for your job.

**THREE SHAPES:** Streamlined-Straight and Round for regular installations.

We prepay freight on 12 units or more. Dealers Everywhere.

**FREE FOLDER**

Gives all Details

PLEASE WRITE

AMERICAN BUILDER Reference File

**GARAGE DOORS**

**GARAGE DOORS**

**GARAGE DOORS**

**GARAGE DOOR OPENER**

**GLASS HARDWARE**

**HARDWARE**

**HARDWARE**
CARVED PANELS

For BEAUTY, ECONOMY and SERVICE...

Specify WINFIELD WOOD SECTIONAL GARAGE DOORS

With exclusive TAPE-R-TRACK hardware!

COMMERCIAL

INDUSTRIAL

Please send me your new, complete brochure on these outstanding garage door values...WINFIELD!

NAME

ADDRESS

CITY

STATE

SIGNATURE

WINFIELD Door Corp.

P. O. BOX 27
LINDENHURST, N. Y.

add "sell" to your new homes

with this appealing built-in feature

HERCULES WALL VAULT

- Recesses into wall between 16" joists
- Can be installed in minutes
- Heavy gauge steel—Thermo-Cel insulation
- Certified furnace-tested to 1700° F. for 1 hour
- Three-tumbler combination lock
- Fits flush behind picture
- Overall height 13 1/2", width 15 1/4", depth 8 1/2"

LIST PRICE $46.25

slightly higher west of Mississippi
Special quantity discounts to builders
Write for catalog

STEEL SAFE COMPANY
DEPT. AB, TOLEDO 6, OHIO

Revolutionary

DURAflex®

THRESHOLDS

- seal tighter • cut costs

Flexible vinyl plastic, arched in a rugged aluminum base, springs against bottom of door sealing snugly along entire length. No hooks or clips. Saves time, saves labor—installs in minutes with just a screwdriver. Proved by over 1,000,000 installations.

A model for every application:

Regular DURAflex

(Model No. RX-100)

Height: 36"
Width: 35 1/2"
Rug Clearance: 1/4"

High-Rug DURAflex

(Model No. RN-125)

Height: 15 1/2"
Width: 35 1/2"
Rug Clearance: 1 1/8"

Commercial DURAflex—4"

(Model No. CS-200)

Height: 36"
Width: 4"
Rug Clearance: 1/4"

Commercial DURAflex—5"

(Model No. CM-225)

Height: 36"
Width: 5"
Rug Clearance: 1/4"

Commercial DURAflex—6 1/2"

(Model No. CW-250)

Height: 36"
Width: 6 1/2"
Rug Clearance: 1/4"

Economy Bumper-Type DURAflex

For outswinging doors only

(Model No. RB-150)

Height: 36"
Width: 3 1/2"

THE DURAflex® CO.

MIAMI • PHOENIX • TORONTO • LONDON

See your building supplies dealer, or send coupon for free brochure now!

SEND COUPON FOR FREE BROCHURE!

The DURAflex Co. • 3500 N. W. 52nd Street • Miami 42, Florida

Name: ____________________________

Address: __________________________

City & State: _______________________

Name of wholesale distributor is _______________________

APRIL 1957
HARDWARE
Attractive catalog, "Select-a-Pak Merchandising Program," contains essential information on firm's broad hardware line as well as illustrations of merchandising display fixtures.—National Lock Co.

Circle No. C20 on reply card Section G

HANGING & FASTENING DEVICES
A broad range of hangers and fasteners including toggle bolts, screws, clamps, drills, hooks and anchors is covered in pocket-size catalog.—Paine Co.

Circle No. C21 on reply card Section G

HARDWARE
Condensed catalog illustrates and describes line of locks, backsets, ornamental escutcheons, installation tools. Includes selector chart, details on finishes.—Schlage Lock Co.

Circle No. C22 on reply card Section G

METAL DOORS
Standardized metal doors and frames for every type of opening are featured in this complete catalog.—United Steel Fabricators, Inc.

Circle No. C23 on reply card Section G

METAL LOUVERS
Here is a working chart for estimating the amount of ventilation required for attic areas.—Metal Ventilator Institute.

Circle No. C24 on reply card Section G

NAILS
Pocket-size handbook gives factual information and specifications for firm's new line of rust-resistant "Stormguard" nails. Reference data aids in determining type, size and quantity.—W. H. Maze Co.

Circle No. C25 on reply card Section G

ORNAMENTAL IRON
Handbook of stock designs and prices of complete line of ornamental iron. Also includes instructions for "manufactured to order" railings.—R. G. Coffman Co., Inc.

Circle No. C26 on reply card Section G

ORNAMENTAL IRON
Catalog No. 56 shows railings, columns, panels and posts for a variety of applications. Gives installation details, including estimates of complete costs.—Metal Crafters.

Circle No. C27 on reply card Section G

ORNAMENTAL RAILINGS
Brochure describes "Glamorails," a combination of metal railings and plastic cord. Gives length of rails—and posts, with colors of cord.—International Aluminum Corp.

Circle No. C28 on reply card Section G

PERFORATED METALS
General catalog No. 62 provides valuable information on the use of perforated metals. Also gives sizes and data on standard patterns.—Harrington & King Perforating Co.

Circle No. C29 on reply card Section G

more and more builders are saying:

Here's the "dependable line of hinges to use in all light construction work"... that's the trade's way of saying, "We like to buy and use Griffin products."

A full line of wrought steel butts and all shelf hardware. Send for new catalog sheet on our #540 Builder's Special.

GRiffin®
"since 1889"
MANUFACTURING CO. ERIE, PA.

TUff-BOND
SUPER-STRENGTH ADHESIVES
Particularly Formulated for Building Contractors

*TUff-BOND GENERAL PURPOSE...An all purpose water resistant adhesive that sticks almost anything to anything.

*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 laminates to wood and to metal.

TUff-BOND QUIK-SET ADHESIVE...An excellent quick setting adhesive for bonding of wood to wood, wood to metal, metal to metal, and rubber to metal or to wood.

*Complies with all requirements of U. S. Department of Commerce Commercial Standard CS 181-52 for water-resistant organic adhesives.

Recommendations for special adhesives made without cost or obligation to you.

GOODLOE E. MOORE
INCORPORATED
DANVILLE 6, ILLINOIS
NEW DENNIS SPRING-FLEX FULL JAMB WEATHER STRIP

COMPLETES ASSEMBLY INCLUDING JAMB COVERING STRIP, COVER TUBES AND COIL SPRING BALANCE UNIT

Each assembled set of Spring-Flex Weather Strip (S-1) includes 6-coil spring adjusters. All springs are adjusted to the minimum tension. If additional tension is required, the adjuster can be fitted to the next notch or succeeding notches for more tension or lifting power on the spring. The adjustment notches are numbered for your convenience.

Note that the nail is driven through the perforated hole in upper top of cover tube, through the adjuster and jamb strip into the jamb of the window. This holds and keeps the complete unit from sliding up and down against the jamb when the window is raised or lowered. All parts are made from the best quality aluminum alloy and the spring is HD-778 high carbon steel, electro galvanize plated.

Above are a few of the many horizontal kerf strips we manufacture from bronze aluminum or nickel silver. Write us for price delivery on the most complete line of kerf strips manufactured.

W. J. DENNIS & CO.
4444 Irving Park Road
Chicago 41, Illinois

THE LESLIE "SERIES 50” SLANT ROOF TYPE VENT

Combines all these features:

* EASIER INSTALLATION—4" wide flange...no “legs” or “posts” to get in the way.
* WEATHERPROOF—wide flange around top of stack, plus parallel baffle in rear.
* MORE FREE AREA—as certified by Metal Ventilator Institute.
* BETTER APPEARANCE—streamlined, one-piece top, and roof-hugging design.
* USE WITH FANS—8" diameter stack fits round duct.
* STURDIER CONSTRUCTION—full 025” aluminum, 26-gauge galvanized steel, screen securely attached.

Available in galvanized steel or aluminum, the “50 Series” Roof Vent is YOUR best answer to the demand for a vent that installs without trouble, that looks and performs well, and provides top quality at the right price.

Write for Leslie Louver Catalogs

LESLEY WELDING CO., Inc.
296 E. Carroll Avenue • Chicago 12, Ill.

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American Builder
Subscription Dept.
Emmett St.
Bristol, Conn.

C41
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   Beautiful designs in square and horizontal, plain or carved panel doors. Sizes to fit openings 8' x 6'6" to 16' x 7'. Fourteen cardinal features include the "Glide-O-Matic" self-opening operation and zinc plated hardware. Pre-bored for fast installation. Cat. No. 303.

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   (One Piece Type)
   Frantz is the leader in rigid overheads. Single and double-width sizes. Special built-in features emphasize greater value. The new No. 10, left, with "Powermatic" action, has the looks of a sectional, the economy of a rigid. Catalogue No. 303.

3. **HARDWARE Only**
   (For Sectional and Rigid Doors)
   For doors to fit openings from 7'6" x 6'7" to 18' x 12'. Ideal for architect designed or mill made doors. Permits unlimited scope of design. The best engineered, easiest-to-use sets ever designed. Catalogue No. 107.

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Cedar Falls, Iowa

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**APRIL 1957**
**CONDENSED METHOD OF ESTIMATING HEATING REQUIREMENTS**

**"CONDENSED METHOD" HEAT LOSS FACTORS**

1. **WINDOWS & DOORS**
   - Multiply sq. ft. by:
     - a. Without storm sash: 113
     - b. With storm sash: 75

2. **OUTSIDE WALLS (NET)**
   - Multiply sq. ft. by:
     - a. SOLID MASONRY—(Brick, stone, etc.) with plaster applied direct to inside surface of masonry wall: 45
     - b. AVG. FRAME—Brick Veneer—Wood Siding—Shingles or Stucco—with sheathing, hldg. paper, studs, lath and plaster: 30
     - c. FURRED MASONRY—(Same as 2a with air space between plaster and masonry wall): 30
     - d. INSULATED FRAME—(Same as 2a with 1” or less insulation board or blanket): 20
     - e. HEAVILY INSULATED—(Same as 2b with 2” or more insulation): 10

3. **CEILINGS & INSIDE WALLS**
   - Multiply sq. ft. by:
     - a. CEILING—Plaster on lath or wall-board. No floor above—Attic not vented: 34
     - b. Same as 3a— with 2” or more insulation: 12
     - c. CEILING of first floor room below unheated room on second floor: 17
     - d. INSIDE WALL adjacent unheated room: 17

4. **FLOORS**
   - Multiply sq. ft. by:
     - a. Double wood floor—over cool basement or other enclosed space: 15
     - b. Same as 4a— but open space below floor exposed to outside: 32

5. **INfiltrATION (AIR LEAKAGE)**
   - Multiply each sq. ft. of window and door area by:
     - a. WINDOWS AND DOORS. Average fit—Not weather-stripped: 50
     - b. Average fit—weather-stripped (or equipped with storm sash): 30
     - c. Poor fit—not weather-stripped: 40
     - d. Poor fit—Weather-stripped (or equipped with storm sash): 40
     - e. EXTRA FOR EACH OUTSIDE DOOR: 1000
     - f. EXTRA for air lost up fireplace flue: 3000

*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). Heat is lost from a warm building through all of its surfaces exposed to lower temperature. This is called "transmission losses." Heat is also lost due to wind blowing through cracks around windows and doors. This is called "infiltration losses." Total heat loss of a building is the sum of transmission losses plus infiltration losses.

A The first step is to find how much heat is lost by transmission. Calculate the areas in square feet of all exposed surfaces of the room or building including:
   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.

B 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.

---

**The map at the right is zoned according to winter design temperatures, and gives percentages by which results from Step C should be multiplied to find actual heating requirements.**
Orient the house so that major glass areas are to the north or south. Shield the west wall with a garage or carport when possible.

Position of the sun at noon on March 21st and September 21st in a latitude of 40° N. (Indianapolis, Ind.) results in a 50° angle.

Position of the sun at noon on June 21st in the same latitude (40° N.) results in a 73.5° angle.

Canvas awnings can reduce the heat load on glass areas as much as 75%.

Fences or tall hedges are good protection for east and west walls when the sun is low.

Trellis work with vines provides a "plant awning" in summer and allows winter sunshine to enter house.

Trees which shed their leaves provide shade in summer yet permit the winter sun to help warm the house.

Overhangs with adjustable louvres provide accurate control throughout the year as they may be closed for summer shading and opened in the winter to take full advantage of the warm rays of the sun.

To find the amount of roof overhang to cast a shadow desired on the wall or window use the following formula:

\[
\text{Shadow height} \times \text{Latitude factor} = \text{Amount of overhang needed.}
\]

1. Determine the height of shadow, in inches, desired (see sketch).
2. Select the factor, from the table, which applies to your latitude.
3. Multiply the desired shadow height by the factor. The result will be the length of the overhang in inches.

Example:

- Shadow height desired 60 inches
- Factor for 40° latitude .71
- Length of overhang 42.6 inches
Section D Appliances - Electrical - Heating & Cooling - Plumbing & Water Supply

DESIGN DATA FOR PERIMETER HEATING

METHODS OF ANCHORING DUCTS

- Metal Bracket
- Concrete Block
- Tie-Down Rods
- Concrete Puddle
- Brick
- Block

PLENUM AND DUCT INSTALLATION

- Radial Duct
- Penum
- Concrete Moisture Barrier

REGISTER OUTLET FORMS

- Wood
- Concrete
- Foundation Insulation
- B' Pipe

REGISTER LOCATION

- Duct
- Floor Register
- Baseboard Register

REGISTER TYPES AND LOCATIONS

FURNACE INSTALLATIONS

- Horizontal Furnace in Attic Space
- Return Air
- Down Duct
- Slab Surface
- Attic Furnace

Adopting an Up-Flow Furnace

Crawl Space Plenum

Courtesy National Warm Air Heating & Air Conditioning Association.
### Electrical Symbols

#### General Outlets
- **Outlet**
- **Blanked Outlet**
- **Drop Cord**
- **Electric Outlet**: for use only when circle used alone might be confused with columns, plumbing symbols, etc.
- **Fan Outlet**
- **Junction Box**
- **Lamp Holder**
- **Lamp Holder with Pull Switch**
- **Outlet for Vapor Discharge Lamp**
- **Exit Light Outlet**
- **Clock Outlet** (Specify Voltage)

#### Convenience Outlets
- **Duplex Convenience Outlet**
- **Convenience Outlet other than Duplex (1=Single, 3=Triplex, etc)**
- **Weatherproof Convenience Outlet**
- **Range Outlet**
- **Switch and Convenience Outlet**
- **Radio and Convenience Outlet**
- **Special Purpose Outlet (Des. in Spec.)**
- **Floor Outlet**

#### Switch Outlets
- **Single Pole Switch**
- **Double Pole Switch**
- **Three Way Switch**
- **Four Way Switch**
- **Automatic Door Switch**
- **Electrolizer Switch**
- **Key Operated Switch**
- **Switch and Pilot Lamp**
- **Circuit Breaker**
- **Weatherproof Circuit Breaker**
- **Momentary Contact Switch**
- **Remote Control Switch**
- **Weatherproof Switch**
- **Fused Switch**
- **Weatherproof Fused Switch**

#### Special Outlets
- Any standard symbol as given above with the addition of a lower case subscript letter may be used to designate some special variation of standard equipment of particular interest in a specific set of architectural plans.

### Panels, Circuits, and Miscellaneous
- **Lighting Panel**
- **Power Panel**
- **Branch Circuit; Concealed in Ceiling or Wall**
- **Branch Circuit; Concealed in Floor**
- **Branch Circuit; Exposed**
- **Home Run to Panel Board. Indicate number of circuits by number of arrows**
- **Note**: Any circuit without further designation indicates a two-wire circuit. For a greater number of wires indicate as follows: — (2 wires), —## (3 wires), —### (4 wires), etc.
- **Feeder**: Use heavy lines and designate by number corresponding to listing in Feeder Schedule.
- **Underfloor Duct and Junction Box. Triple System.**
- **Note**: For double or single systems eliminate one or two lines. This symbol is equally adaptable to auxiliary system layouts.

### Auxiliary Systems
- **Pushbutton**
- **Buzzer**
- **Evacuator**
- **Outside Telephone**
- **Interconnecting Telephone**
- **Telephone Switchboard**
- **Bell-Ringing Transformer**
- **Electric Door Opener**
- **Fire Alarm Bell**
- **Fire Alarm Station**
- **City Fire Alarm Station**
- **Fire Alarm Central Station**
- **Automatic Fire Alarm Device**
- **Watchman's Station**
- **Watchman's Central Station**
- **Horn**
- **Nurse's Signal Plug**
- **Maid's Signal Plug**
- **Radio Outlet**
- **Signal Central Station**
- **Interconnection Box**
- **Battery**

Note: Any line without further designation indicates a 2-wire system. For a greater number of wires designate with numerals in manner similar to —## —## —## No. 18W/3/4V/C+, or designate by number corresponding to listing in Schedule.

**Special Auxiliary Outlets**
- Subscript letters refer to notes on plans or detailed description in specifications.
### BUILT-IN LIGHTING DETAILS

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<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td><strong>CORINACE</strong></td>
<td><img src="image2" alt="Diagram of Cornice" /></td>
</tr>
<tr>
<td>Provides wall light only. Face-board joins ceiling. Channel is ceiling-mounted. Recommended for low-ceiling rooms, or where window head is close to ceiling.</td>
<td></td>
</tr>
<tr>
<td><strong>COVE</strong></td>
<td><img src="image3" alt="Diagram of Cove" /></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td><strong>BRACKET</strong></td>
<td><img src="image4" alt="Diagram of Bracket" /></td>
</tr>
<tr>
<td>Like valance, but centerline of faceboard is on same level with tube, should be closer to wall. Light emission is both upward and down.</td>
<td></td>
</tr>
<tr>
<td><strong>RECESSED DOWNLIGHT</strong></td>
<td><img src="image5" alt="Diagram of Recessed Downlight" /></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td><strong>EDGELIGHTING</strong></td>
<td><img src="image6" alt="Diagram of Edgelighting" /></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td><strong>SOFFIT</strong></td>
<td><img src="image7" alt="Diagram of Soffit" /></td>
</tr>
<tr>
<td>Underside of beam or furred-down section containing recessed luminous panel. Chiefly for local lighting, but several soffit panels could provide adequate general illumination.</td>
<td></td>
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<tr>
<td><strong>CANOPY-OVERHANG</strong></td>
<td><img src="image8" alt="Diagram of Canopy-Overhang" /></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td><strong>TROFFER</strong></td>
<td><img src="image9" alt="Diagram of Trough" /></td>
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<td>A fixture that provides a “pre-assembled” recessed panel including reflector. Generally narrow, made to permit end-to-end, continuous runs.</td>
<td></td>
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<tr>
<td><strong>SUSPENDED CEILING</strong></td>
<td><img src="image10" alt="Diagram of Suspended Ceiling" /></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td><strong>COFFER</strong></td>
<td><img src="image11" alt="Diagram of Coffered Ceiling" /></td>
</tr>
<tr>
<td>A recessed cavity open at bottom with high cut-off angle. Interior surface becomes an indirect, diffused light source, primarily local.</td>
<td></td>
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Section D Appliances - Electrical - Heating & Cooling - Plumbing & Water Supply

LIGHTING PRINCIPLES

KITCHEN WORK COUNTERS
The plane to be illuminated is 24 inches wide and 20 inches deep. It is located with its front edge along the work counter, and it is 36 inches above the floor. The lower shielding edge of wall mounted lighting units should not be higher than 58 inches above the floor.

RANGE AND SINK TOPS
The plane to be illuminated is 40 inches wide and 24 inches deep. It represents the entire area of the range or sink top. It is 36 inches above the floor. The lower shielding edge of wall mounted lighting units should not be higher than 58 inches above the floor. Ceiling mounted units are centered over the work surface as illustrated. The dashed circle indicates the positioning of incandescent lamps, while the parallel straight dashed lines position fluorescent tubes.

LAUNDRY TRAYS
The selected plane to be illuminated is 48 inches wide and 20 inches deep and it is 32 inches above the floor. The lower shielding edge of wall mounted lighting units should not be higher than 58 inches above the floor. Ceiling mounted units are centered over the plane. The dashed circle shows the position of incandescent lamps, while the parallel straight dashed lines position fluorescent tubes.

HAND IRONING
The selected plane to be illuminated is 48 inches wide and 12 inches deep. It is 32 inches above the floor. The lower shielding edge of wall mounted lighting units should not be higher than 58 inches above the floor. Ceiling mounted units are centered over the work surface as illustrated. The dashed circle indicates the positioning of the incandescent lamps, while the parallel straight dashed lines position fluorescent tubes.

MACHINE IRONING
The selected plane to be illuminated is 30 inches wide and 14 inches deep. Its center is 31 inches above the floor and it is tilted up 45 degrees, towards the eyes of the individual. Wall mounted lighting units shall have their shielding edge not higher than 48 inches above the floor. Ceiling mounted units are centered 5 inches back from the front edge of the illuminated plane. The dashed circle indicates the positioning of the incandescent lamps, while the parallel straight dashed lines position fluorescent tubes.

Courtesy Illuminating Engineering Society

APRIL 1957 D7
## BUILT-IN ELECTRIC RANGES

### INSTALLATION DIMENSIONS

- **Types of Range Tops**

### DESIGN DATA ON DROP-IN TYPE ELECTRIC RANGES

(Dimensions are given in inches)

*Indicates one burner includes deep-well cooker.

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<td>A</td>
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<tr>
<td>Brown Stove Works</td>
<td>LT-14</td>
<td>E</td>
<td>240</td>
</tr>
<tr>
<td>Frigidaire Div.</td>
<td>RBW-100</td>
<td>F</td>
<td>240</td>
</tr>
<tr>
<td>Gibson Refrigerator Co.</td>
<td>R2-59A</td>
<td>E</td>
<td>208</td>
</tr>
<tr>
<td>Globe American Corp.</td>
<td>ETU-1</td>
<td>C</td>
<td>240</td>
</tr>
<tr>
<td>Hotpoint Co.</td>
<td>RK5</td>
<td>K</td>
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<tr>
<td>Kelvinator Div.</td>
<td>KRS-F33</td>
<td>C</td>
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<tr>
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<td>E</td>
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</tr>
<tr>
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<td>E-564</td>
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</tr>
<tr>
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<td>374</td>
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<td>B</td>
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<tr>
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### MANUFACTURER SPECS

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# BUILT-IN ELECTRIC RANGES

## INSTALLATION DIMENSIONS

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<th>Type</th>
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<th>COOKING TOP</th>
<th>CONTROL PANEL OPENING</th>
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</table>

*Indicates one burner includes deep-well cooker.

**APRIL 1957**
### Types of Range Tops

- **A**: Single burner
- **B**: Single burner
- **C**: Single burner
- **D**: Single burner

### BUILT-IN GAS RANGES

**DESIGN DATA ON FRONT CONTROL PANEL GAS RANGES**

(Designs are given in inches)

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Type</th>
<th>COUNTER TOP OPENING</th>
<th>COOKING TOP</th>
<th>CONTROL PANEL DIMENSIONS</th>
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<td>L W</td>
<td>L H A R</td>
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<tr>
<td>Stove Works, Inc., The</td>
<td>W-200</td>
<td>B</td>
<td>19 20 6 1/8 21 22 17 1 1/2 1 1/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tappan Stove Co.</td>
<td>TF-6</td>
<td>B</td>
<td>22 1/2 20 6 1/8 23 21 22 1/4 3 1/4 1 1/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tennessee Stove Works</td>
<td>GT-4</td>
<td>B</td>
<td>19 20 6 20 1/2 21 18 1/4 4 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GT-2</td>
<td>A</td>
<td>12 20 6 13 21 11 1/4 4 2 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Welbilt Corp.</td>
<td>526</td>
<td>A</td>
<td>12 1/2 18 6 1/8 14 20 12 3 1/2 1 1/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>546A</td>
<td>B</td>
<td>20 3/4 20 5 1/8 21 21 18 1/2 3 1/4 1 1/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whirlpool-Scov Corp.</td>
<td>G-670</td>
<td>B</td>
<td>22 1/2 20 6 26 22 22 1/2 3 1/4 1 1/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>G-671</td>
<td>A</td>
<td>11 1/2 21 6 14 22 11 1/4 3 1/4 1 1/4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**American Builder**
Section D  Appliances - Electrical - Heating & Cooling - Plumbing & Water Supply

BUILT-IN GAS RANGES

INSTALLATION DIMENSIONS

DESIGN DATA ON DROP-IN GAS RANGE UNITS — FRONT VENT

(Dimensions are given in inches)

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Type</th>
<th>COUNTER TOP OPENING</th>
<th>COOKING TOP</th>
<th>VENT OPENING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaffers &amp; Satter</td>
<td>E</td>
<td></td>
<td>34½</td>
<td>17</td>
<td>11½</td>
</tr>
<tr>
<td>Pioneer Range Co.</td>
<td>422</td>
<td>D</td>
<td>39½</td>
<td>15½</td>
<td>10½</td>
</tr>
<tr>
<td>Tappan Stove Co.</td>
<td>TNS-6</td>
<td>D</td>
<td>40½</td>
<td>16½</td>
<td>11</td>
</tr>
<tr>
<td>Tappan Stove Co.</td>
<td>TNS-5</td>
<td>E</td>
<td>34½</td>
<td>16½</td>
<td>11</td>
</tr>
<tr>
<td>Western-Holly Appliance Co.</td>
<td>BI F-513</td>
<td>D</td>
<td>40½</td>
<td>15½</td>
<td>10½</td>
</tr>
<tr>
<td>Western-Holly Appliance Co.</td>
<td>BI F-543</td>
<td>E</td>
<td>34½</td>
<td>16½</td>
<td>10½</td>
</tr>
</tbody>
</table>

DESIGN DATA ON DROP-IN GAS RANGE UNITS — NO VENT

(Dimensions are given in inches)

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Type</th>
<th>COUNTER TOP OPENING</th>
<th>COOKING TOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chambers Ranges, Inc.</td>
<td>Drop-In</td>
<td>B</td>
<td>33½</td>
<td>18½</td>
</tr>
<tr>
<td>Globe American Corp.</td>
<td>GTU-1</td>
<td>C</td>
<td>32½</td>
<td>20½</td>
</tr>
<tr>
<td>Globe American Corp.</td>
<td>GTUG-1</td>
<td>J</td>
<td>40½</td>
<td>20½</td>
</tr>
</tbody>
</table>

DESIGN DATA ON COUNTER TOP GAS RANGE UNITS

(Dimensions are given in inches)

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Type</th>
<th>OVERALL DIMENSIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samuel Stamping &amp; Enameling Co.</td>
<td>2714 series</td>
<td>B</td>
<td>24</td>
</tr>
<tr>
<td>Stiglitz Corp.</td>
<td>G-4</td>
<td>B</td>
<td>27½</td>
</tr>
<tr>
<td>Tappan Stove Co.</td>
<td>TY-30</td>
<td>B</td>
<td>30</td>
</tr>
<tr>
<td>Tappan Stove Co.</td>
<td>TY-36</td>
<td>B</td>
<td>36</td>
</tr>
</tbody>
</table>

STACK-ON GAS RANGE UNITS

(Dimensions are given in inches)

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Type</th>
<th>OVERALL DIMENSIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chambers Ranges, Inc.</td>
<td>42-488</td>
<td>J</td>
<td>42</td>
</tr>
<tr>
<td>Ozark-A-Top</td>
<td>24-60C</td>
<td>B</td>
<td>24</td>
</tr>
<tr>
<td>Preway Inc.</td>
<td>55786</td>
<td>B</td>
<td>20½</td>
</tr>
<tr>
<td>Tappan Stove Co.</td>
<td>TY-24</td>
<td>B</td>
<td>24</td>
</tr>
</tbody>
</table>

TYPES OF RANGE TOPS

Stack-on and counter top range units are usually produced in dimensions to fit the cabinet standards of both the metal and wood cabinet manufacturers. Also the back-splash dimensions and shape is made to line up with manufactured counter tops, with the junction covered with a metal moulding.

APRIL 1957
### Section D Appliances - Electrical - Heating & Cooling - Plumbing & Water Supply

#### BUILT-IN ELECTRIC OVENS

**INSTALLATION DIMENSIONS**

**OVEN TYPES**

- **TYPE A** SINGLE DOOR INTEGRAL BROILER
- **TYPE B** TWO DOORS SEPARATE BROILER
- **TYPE C** DOUBLE OVEN UNIT
- **TYPE D** FRENCH DOORS

**DESIGN DATA ON BUILT-IN ELECTRIC OVENS**

(Dimensions are given in inches)

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Type</th>
<th>ROUGH OPENING</th>
<th>FINISHED FACE</th>
<th>Height to Floor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Admiral Corp.</strong></td>
<td>ECO</td>
<td>A</td>
<td>21% 27% 23%</td>
<td>23 29% 31</td>
<td></td>
</tr>
<tr>
<td><strong>Brown Stove Works</strong></td>
<td>LO</td>
<td>A</td>
<td>21% 24 23%</td>
<td>23 26 29%</td>
<td></td>
</tr>
<tr>
<td><strong>Chambers Ranges, Inc.</strong></td>
<td>IN-A-WALL</td>
<td>A</td>
<td>24 26 26%</td>
<td>Special rim furnished</td>
<td></td>
</tr>
<tr>
<td><strong>Frigidaire Div.</strong></td>
<td>B &amp; W 90-91-92</td>
<td>D</td>
<td>20% 29 23%</td>
<td>23% 31% 32</td>
<td></td>
</tr>
<tr>
<td><strong>General Electric Co.</strong></td>
<td>T550</td>
<td>A</td>
<td>25 30% 22% 26% 32</td>
<td>32% 31%</td>
<td></td>
</tr>
<tr>
<td><strong>Gibson Refrigerator Co.</strong></td>
<td>R1-WC</td>
<td>A</td>
<td>31 27% 24</td>
<td>28% 32% 28%</td>
<td></td>
</tr>
<tr>
<td><strong>R-T-C</strong></td>
<td></td>
<td>A</td>
<td>21% 26% 24%</td>
<td>23% 37% 29%</td>
<td></td>
</tr>
<tr>
<td><strong>Globe American Corp.</strong></td>
<td>EW</td>
<td>A</td>
<td>22 25 23% 25%</td>
<td>25% 28%</td>
<td></td>
</tr>
<tr>
<td><strong>Hetmost Co.</strong></td>
<td>R12</td>
<td>B</td>
<td>21 47% 34</td>
<td>22% 48% 34</td>
<td></td>
</tr>
<tr>
<td><strong>Kelvinator Div.</strong></td>
<td>KEO</td>
<td>A</td>
<td>21% 24% 24%</td>
<td>23% 26%</td>
<td></td>
</tr>
<tr>
<td><strong>Lindemann &amp; Hoverson Co.</strong></td>
<td>L218ER</td>
<td>C</td>
<td>42% 37% 24</td>
<td>44% 28% 28%</td>
<td></td>
</tr>
<tr>
<td><strong>LIMA</strong></td>
<td></td>
<td>A</td>
<td>21% 37% 23%</td>
<td>23% 39% 28%</td>
<td></td>
</tr>
<tr>
<td><strong>M10</strong></td>
<td></td>
<td>A</td>
<td>21% 25% 24</td>
<td>22% 28 28%</td>
<td></td>
</tr>
<tr>
<td><strong>Monarch Range Co.</strong></td>
<td>1027A</td>
<td>A</td>
<td>25 30% 24</td>
<td>27 32</td>
<td></td>
</tr>
<tr>
<td><strong>Mt. Vernon Furnace &amp; Mfg. Co.</strong></td>
<td>89</td>
<td>A</td>
<td>22% 29% 21%</td>
<td>24 30% 26%</td>
<td></td>
</tr>
<tr>
<td><strong>National Stove Co.</strong></td>
<td>WA145</td>
<td>A</td>
<td>21% 29 23%</td>
<td>23% 31% 32</td>
<td></td>
</tr>
<tr>
<td><strong>Norge Sales Corp.</strong></td>
<td>E-561-WO</td>
<td>A</td>
<td>21% 25% 24</td>
<td>22% 26%</td>
<td></td>
</tr>
<tr>
<td><strong>Philco Corp.</strong></td>
<td>152 &amp; 156</td>
<td>A</td>
<td>21% 30% 23%</td>
<td>22% 31% 28%</td>
<td></td>
</tr>
<tr>
<td><strong>Prestoline Div.</strong></td>
<td>4000 series</td>
<td>A</td>
<td>30% 25% 23%</td>
<td>23% 36% 25</td>
<td></td>
</tr>
<tr>
<td><strong>Preway Inc.</strong></td>
<td>380 series</td>
<td>A</td>
<td>21% 26% 23%</td>
<td>22% 29% 28 to 30</td>
<td></td>
</tr>
<tr>
<td><strong>Ruttenber Electric Co.</strong></td>
<td>1516</td>
<td>A</td>
<td>20% 26% 23%</td>
<td>22 28</td>
<td></td>
</tr>
<tr>
<td><strong>Samuel Stamping &amp; Enameling Co.</strong></td>
<td>800 series</td>
<td>B</td>
<td>20 29 24</td>
<td>22% 40% 21</td>
<td></td>
</tr>
<tr>
<td><strong>Stiglitz Corp.</strong></td>
<td>Infra-Aire</td>
<td>A</td>
<td>23 25% 24</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td><strong>Tappan Stove Co.</strong></td>
<td>FOY-1 &amp; EO&amp;YV-1</td>
<td>A</td>
<td>22 25 24</td>
<td>23% 26%</td>
<td></td>
</tr>
<tr>
<td><strong>Tennessee Stove Works</strong></td>
<td>LF-1 &amp; EO&amp;YV-1</td>
<td>A</td>
<td>22 25 24</td>
<td>23% 26%</td>
<td></td>
</tr>
<tr>
<td><strong>Terminator Electrical Mfg. Co.</strong></td>
<td>WD16</td>
<td>A</td>
<td>20 24 24</td>
<td>23% 26% 29</td>
<td></td>
</tr>
<tr>
<td><strong>Trumbull Corp.</strong></td>
<td>500 series</td>
<td>B</td>
<td>20% 30 23%</td>
<td>22 41% 31</td>
<td></td>
</tr>
<tr>
<td><strong>Westinghouse Electric Co.</strong></td>
<td>OJ-24</td>
<td>A</td>
<td>30% 25 23%</td>
<td>31% 26% 29%</td>
<td></td>
</tr>
<tr>
<td><strong>Whirlpool-Seeger Corp.</strong></td>
<td>E series</td>
<td>A</td>
<td>21% 28% 24</td>
<td>22% 29 28 to 31</td>
<td></td>
</tr>
</tbody>
</table>
### INSTALLATION DIMENSIONS

**OVEN TYPES**

#### TYPE A
- SINGLE DOOR
- INTEGRAL BROILER

#### TYPE B
- TWO DOORS
- SEPARATE BROILER

### BUILT-IN GAS OVENS

#### DESIGN DATA ON BUILT-IN GAS OVENS

(Dimensions are given in inches)

| Manufacturer                          | Model  | Type   | ROUGH OPENING | FINISHED FACE | Height to Floor |
|---------------------------------------|--------|--------|---------------|---------------|----------------|-----------------|
|                                       |        |        | W  | H  | D  | W | H | F  |               |
| Brown Stove Works, Inc.               | UO series | B  | 22 | 34  | 23  | 23 | 35 | 29  |               |
| Caloric Appliance Corp.               | All models | B  | 22 | 38  | 23  | 22  | 40  | 21  |               |
| Chambers Ranges, Inc.                 | IN-A-WALL | A  | 24 | 26  | 26  | 26  | Special rim furnished |               |
| Cribbin & Sexton Co.                  | All models | B  | 21  | 38  | 24  | 23  | 41  | 21  |               |
| Dixie Products, Inc.                  | All models | B  | 22  | 38  | 22  | 23  | 39  | 21  |               |
| Florence Stove Co.                    | All models | B  | 22 | 38  | 23  | 23  | 40  | 19  |               |
| Gaffers & Satller                     | All models | B  | 23 | 42  | 24  | 24  | 44  | 18  |               |
| Globe American Corp.                  | GS series | B  | 21  | 37  | 22  | 23  | 39  | 22  |               |
| Hardwick Stove Co.                    | 766     | B  | 22  | 37  | 23  | 24  | 40  | 22  |               |
| Magic Chef Inc.                       | All models | B  | 22 | 38  | 23  | 22  | 40  | 22  |               |
| Mt. Vernon Furnace & Mfg. Co.         | 88      | A  | 22  | 29  | 21  | 24  | 30  | 26  |               |
| National Stove                        | W240    | B  | 21  | 38  | 22  | 22  | 40  | 23  |               |
|                                        | W440    | B  | 29  | 38  | 22  | 20  | 40  | 23  |               |
| Pioneer Range Co.                     | 409 & 411 | B  | 21  | 38  | 24  | 23  | 41  | 21  |               |
| Prestline Div.                        | 5GO series | B  | 22 | 34  | 24  | 23  | 36  | 25  |               |
| Preway Inc.                           | 700 series | B  | 22  | 34  | 22  | 23  | 35  | 24  |               |
| Roper Corp., Geo. D.                  | 500     | B  | 22  | 38  | 24  | 23  | 42  | 19  |               |
| Samuel Stamping & Enameling Co.       | 900 series | B  | 20  | 39  | 24  | 22  | 40  | 21  |               |
| Stiglitz Corp.                        | Infra-Aire | A  | 23  | 30  | 24  | 24  | 31  |     |               |
| Stove Works, Inc., The                | All models | B  | 21  | 38  | 24  | 22  | 40  | 21  |               |
| Tappan Stove Co.                      | All models | B  | 22 | 38  | 24  | 23  | 40  | 20  |               |
| Tennessee Stove Works                 | GO series | B  | 22  | 34  | 24  | 23  | 36  | 25  |               |
| Welbilt Corp.                         | 500 series | B  | 20  | 38  | 23  | 22  | 41  | 21  |               |
| Western-Holly Appliance Co.           | 810R-512 | B  | 23  | 47  | 24  | 25  | 48  | 18  |               |
|                                        | 810-512-2 | B  | 23  | 41  | 24  | 25  | 41  | 21  |               |
| Whirlpool-Seager Corp.                | G series | B  | 21  | 34  | 22  | 22  | 35  | 24  |               |

#### STACK-ON GAS OVENS

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Type</th>
<th>W</th>
<th>H</th>
<th>D</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Kitchens Div.</td>
<td>GO-2403</td>
<td>A</td>
<td>24</td>
<td>20</td>
<td>22</td>
<td>28</td>
</tr>
<tr>
<td>Chambers Ranges, Inc.</td>
<td>IN-A-WALL</td>
<td>A</td>
<td>24</td>
<td>26</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Mt. Vernon Furnace &amp; Mfg. Co.</td>
<td>188</td>
<td>A</td>
<td>24</td>
<td>30</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Stiglitz Corp.</td>
<td>AV</td>
<td>A</td>
<td>24</td>
<td>31</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TT</td>
<td>A</td>
<td>24</td>
<td>31</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SO</td>
<td>A</td>
<td>24</td>
<td>31</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Tappan Stove Co.</td>
<td>OTL series</td>
<td>B</td>
<td>24</td>
<td>40</td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

**APRIL 1957**
### BUILT-IN ELECTRIC RANGES

#### INSTALLATION DIMENSIONS

#### INSTALLATION DIMENSIONS

#### INSTALLATION DIMENSIONS

#### TYPES OF RANGE TOPS

#### TOPS FOLD-BACK ELECTRIC RANGE UNITS

#### INSTALLATION DESIGN DATA ON COUNTER TOP ELECTRIC RANGE UNITS

(Dimensions are given in inches)

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Type</th>
<th>L</th>
<th>W</th>
<th>D</th>
<th>F</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotpoint Co.</td>
<td>RM1</td>
<td>F</td>
<td>27½</td>
<td>21</td>
<td>9½</td>
<td>30</td>
<td>25</td>
<td>10½</td>
</tr>
<tr>
<td>Philco Corp.</td>
<td>163</td>
<td>B</td>
<td>22</td>
<td>23½</td>
<td>7½</td>
<td>24</td>
<td>23½</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>167</td>
<td>B</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25½</td>
<td>5½</td>
<td></td>
</tr>
<tr>
<td>Samuel Stamping &amp; Enameling Co.</td>
<td>E-24</td>
<td>B</td>
<td>24</td>
<td>24</td>
<td>6½</td>
<td>24</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>E-27</td>
<td>B</td>
<td>24½</td>
<td>24</td>
<td>6½</td>
<td>27</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>E-30</td>
<td>B</td>
<td>24</td>
<td>24</td>
<td>6½</td>
<td>30</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>E-36</td>
<td>B</td>
<td>24½</td>
<td>24</td>
<td>6½</td>
<td>36</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Tappan Stove Co.</td>
<td>ETFS-5</td>
<td>B</td>
<td>30</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ETFS-6</td>
<td>B</td>
<td>36</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### STACK-ON ELECTRIC RANGE UNITS

(Dimensions are given in inches)

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Type</th>
<th>L</th>
<th>W</th>
<th>D</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chambers Ranges, Inc.</td>
<td>24-4EC</td>
<td>B</td>
<td>24</td>
<td>25</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Globe American Corp.</td>
<td>ECTU24-1</td>
<td>B</td>
<td>24</td>
<td>25</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ECTU30-1</td>
<td>B</td>
<td>30</td>
<td>25</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>

#### STACK-ON ELECTRIC OVENS

(Dimensions are given in inches)

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Type</th>
<th>W</th>
<th>H</th>
<th>D</th>
<th>Height to Floor F</th>
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<tr>
<td>American Kitchens Div.</td>
<td>CEO2402</td>
<td>A</td>
<td>24</td>
<td>30½</td>
<td>22½</td>
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<td>Chambers Ranges, Inc.</td>
<td>IN-A-WALL</td>
<td>A</td>
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<td>Globe American Corp.</td>
<td>EW series</td>
<td>A</td>
<td>23½</td>
<td>25½</td>
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<td>Mt. Vernon Furnace &amp; Mfg. Co.</td>
<td>189</td>
<td>A</td>
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<td>Philco Corp.</td>
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<td></td>
<td>SO</td>
<td>A</td>
<td>24</td>
<td>27½</td>
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</tbody>
</table>

#### FOLD-BACK ELECTRIC RANGE UNITS

(Frigidaire Div.)

**NOTE**

Illustration shows the RBM-24 model with 4 burners and a total wattage rating of 6.8 K.W. The same overall dimensions, except length, which is 23½-16, apply to model RBW-30. This model has a total wattage of 3.5 K.W. with 2 burners.
Section D  Appliances - Electrical - Heating & Cooling - Plumbing & Water Supply

DIMENSIONS OF SMALL APPLIANCES

<table>
<thead>
<tr>
<th>Appliance</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juice Blender</td>
<td>7&quot; x 7&quot; x 16&quot;</td>
</tr>
<tr>
<td>Deep Fryer</td>
<td>10&quot; x 10&quot; x 9&quot;</td>
</tr>
<tr>
<td>Coffee Pot</td>
<td>6&quot; x 10&quot; x 12&quot;</td>
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<tr>
<td>Iron</td>
<td>5&quot; x 10&quot; x 6&quot;</td>
</tr>
<tr>
<td>Pressure Cooker</td>
<td>16&quot; x 11&quot; x 9&quot;</td>
</tr>
<tr>
<td>Waffle Iron</td>
<td>13&quot; x 13&quot; x 6&quot;</td>
</tr>
<tr>
<td>Deep Fryer</td>
<td>9&quot; x 14&quot; x 9&quot;</td>
</tr>
<tr>
<td>Roaster Oven</td>
<td>15&quot; x 16&quot; x 24&quot;</td>
</tr>
<tr>
<td>Grill</td>
<td>14&quot; x 24&quot; x 1&quot;</td>
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<tr>
<td>Toaster</td>
<td>10&quot; x 10&quot; x 9&quot;</td>
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<tr>
<td>Frying Pan</td>
<td>13&quot; x 17&quot; x 7&quot;</td>
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<tr>
<td>Hand Mixer</td>
<td>8&quot; x 6&quot; x 4&quot;</td>
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<tr>
<td>Stewing Pan</td>
<td>16&quot; x 11&quot; x 9&quot;</td>
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<tr>
<td>Rotisserie</td>
<td>22&quot; x 14&quot; x 16&quot;</td>
</tr>
<tr>
<td>Coffee Brewer</td>
<td>6&quot; x 9&quot; x 14&quot;</td>
</tr>
<tr>
<td>Mixer</td>
<td>12&quot; x 10&quot; x 14&quot;</td>
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APRIL 1957
### Piping

<table>
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<tr>
<th>Piping, in general</th>
<th>Non-Intersecting Pipes</th>
<th>Steam</th>
<th>Condensate</th>
<th>Cold Water</th>
<th>Hot Water</th>
<th>Air</th>
<th>Vacuum</th>
<th>Gas</th>
<th>Refrigerant</th>
<th>Oil</th>
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### Piping, in general (continued)

<table>
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<tr>
<th>For Welded or Soldered Fittings. use joint indication shown below</th>
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<tbody>
<tr>
<td>Lateral</td>
</tr>
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### PLUMBING SYMBOLS

#### PLUMBING SYMBOLS

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<tr>
<th>PIPE FITTINGS</th>
<th>PLUMBING</th>
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<td>For Welded or Soldered Fittings, use joint indication shown below</td>
</tr>
<tr>
<td>Screwed</td>
<td>Ball and Spigot</td>
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#### PLUMBING SYMBOLS (continued)

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<th>PIPE FITTINGS</th>
<th>PLUMBING (continued)</th>
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<tr>
<td>Joint</td>
<td>Plain Kitchen Sink</td>
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<tr>
<td>Elbow - 90 deg</td>
<td>Kitchen Sink, R &amp; L Drain Board</td>
</tr>
<tr>
<td>Elbow - 45 deg</td>
<td>Kitchen Sink, L H Drain Board</td>
</tr>
<tr>
<td>Elbow - Turned Up</td>
<td>Combination Sink &amp; Dishwasher</td>
</tr>
<tr>
<td>Elbow - Turned Down</td>
<td>Combination Sink &amp; Laundry Tray</td>
</tr>
<tr>
<td>Elbow - Long Radius</td>
<td>Service Sink</td>
</tr>
<tr>
<td>Side Outlet Elbow - Outlet Down</td>
<td>Wash Sink (Wall Type)</td>
</tr>
<tr>
<td>Side Outlet Elbow - Outlet Up</td>
<td>Wash Sink</td>
</tr>
<tr>
<td>Base Elbow</td>
<td>Laundry Tray</td>
</tr>
<tr>
<td>Double Branch Elbow</td>
<td>Water Closet (Low Tank)</td>
</tr>
<tr>
<td>Single Sweep Tee</td>
<td>Water Closet (No Tank)</td>
</tr>
<tr>
<td>Double Sweep Tee</td>
<td>Urinal (Pedestal Type)</td>
</tr>
<tr>
<td>Reducing Elbow</td>
<td>Urinal (Wall Type)</td>
</tr>
<tr>
<td>Tee</td>
<td>Urinal (Corner Type)</td>
</tr>
<tr>
<td>Tee - Outlet Up</td>
<td>Urinal (Stall Type)</td>
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<tr>
<td>Tee - Outlet Down</td>
<td>Urinal (Trough Type)</td>
</tr>
<tr>
<td>Side Outlet Tee - Outlet Up</td>
<td>Drinking Fountain (Pedestal Type)</td>
</tr>
<tr>
<td>Side Outlet Tee - Outlet Down</td>
<td>Drinking Fountain (Wall Type)</td>
</tr>
<tr>
<td>Cross</td>
<td>Drinking Fountain (Trough Type)</td>
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<tr>
<td>Reducer</td>
<td>Hot Water Tank</td>
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<tr>
<td>Eccentric Reducer</td>
<td>Water Heater</td>
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</table>

### Types of Joints

- Flanged
- Screwed
- Ball & Spigot
- Welded
- Soldered

---

**AMERICAN BUILDER**
Section D Appliances - Electrical - Heating & Cooling - Plumbing & Water Supply

SEPTIC TANK CONSTRUCTION

HOUSE

4" C.I. Pipe
Main sewer pipe
4" vitrified tile closed joints
Kichen waste

SEPTIC TANK

Distribution box

4" field tile (open joints)
in 2 ft. trench

DISPOSAL FIELD

100' max.

TYPICAL SEWAGE DISPOSAL SYSTEM

SECTION THRU SEPTIC TANK

Varies with local conditions and total trench depth

CROSS SECTION

LATERAL VIEW THRU TRENCH

CONCRETE COVER SLAB

APRIL 1957
Bathroom Fixture Requirements

Minimum spacing for water closet

Water closet

Water closet and lavatory side by side

Shower and lavatory

Shower and water closet

Water closet and bathtub side by side

Water closet and lavatory facing bathtub

Wall and bathtub
Section D Appliances - Electrical - Heating & Cooling - Plumbing & Water Supply

Bathroom Accessory Standards

Towel Rack.

- Bath Towels
  - Allow 27" rod space per person

Water Closet

- Minimum spacing for water closet

Allower 27" rod space per person

Side view - Water closet

Lavatory

- Mirror Doors
- Average 6'-0"
- Clearance for lavatory with towel bars

Twin Lavatory Cabinet

- Average 6'-0"
- Recommended spacing for Counter Twin Lavatory installations

Shelf - Back Lavatory

Lavatory counter height 31" For adult use in master bath 34-36"

Cabinet - Hooks - Heater

- Paper Towels 15"
- Hygiene Cabinet 16"

Shower Stall

- Waxen 5'-0"
- Soap & Grab 1'-0"
- 2'-2" 2 or 3 lls above bath

Bathtub

- 5'-0" 24"
- 6'-4" 24"
Section D  Appliances - Electrical - Heating & Cooling - Plumbing & Water Supply

STEEL KITCHEN CABINET STANDARDS

WALL FAN CABINET
WALL FAN CABINET WITH STORAGE SURF.
SOLID SHELVES
SPIN SHELVES

WALL CABINET
COMBINATIONS FOR ABOVE APPLIANCES

90° WALL END SHELVES (SAME HEIGHT AS WALL CB'TS)
160° SCRIBING INTERMEDIATE CORNER WALL END SHELVES
WALL CABINETS

SINKS AND UNDERSINK CABINETS

CUSTOM MADE SINK AND COUNTER TOPS
AVAILABLE IN STAINLESS STEEL, LAMINATED PLASTIC, LINOLEUM, VINYL AND OTHER MATERIALS

SINK CABINET
UNDERSINK CB'T LNR.
UNDERSINK CB'T
CORNER SINK CB'T

SINGLE DOOR SINK FRONT
DBL DOOR SINK FRONT
RECESSED TYPE SINK FRONT
CORNER SINK FRONT

BOWL AND LAUNDRY TRAY STAINLESS STEEL, ENAMELED IRON OR PORCELAIN ON STEEL
DBL BOWL DBL ORN'ED STAINLESS STEEL, ENAMELED IRON OR PORCELAIN ON STEEL
DBL BOWL ORN'ED DBL STAINLESS STEEL, ENAMELED IRON OR PORCELAIN ON STEEL (34 ONLY IN EN, IRON OR PORC)
DBL BOWL ORN'ED DBL STAINLESS STEEL, ENAMELED IRON OR PORCELAIN ON STEEL (40 AND 48 ONLY IN EN IRON OR PORC)

D20

AMERICAN BUILDER
STEEL KITCHEN CABINET STANDARDS

- Single Door Base
- Double Door Base
- Corner Base Unit
- Revolving Shelves
- Cutting Board
- Pinnacle Cabinet with Filler
- Standard Base Cabinets
- Peninsular Cabinet
- Built-in Range Cabinets
- Fitted Base and Range Unit Cabinets

Courtesy Steel Kitchen Cabinet Manufacturers Assn.

April 1957
Section D Appliances - Electrical - Heating & Cooling - Plumbing & Water Supply

WOOD KITCHEN CABINET STANDARDS

SINGLE DOOR WALL CABINETS

- 12'-24'
- 13'-18'
- 20'-27'
- 30'-45'

MIDWAY UNIT

- Sliding door
- 12'-48'
- 8'
- 14'-18'

DOUBLE DOOR WALL CABINETS

- 24'-48'
- 13'-18'
- 20'-27'
- 30'-45'

WALL FILLER

- 1" and Up

Wood kitchen cabinets can be obtained in any 3" module between min. and max. dimensions shown.

WALL CABINET COMBINATIONS FOR USE ABOVE APPLIANCES

- 12" min.
- 21'-48" Variable
- 12" min.

CORNER WALL CABINET

- 24'-27'
- 30'-45'
- With solid or spin shelves

WALL END SHELVES

- 90° Same height as wall cabinets
- 180°

LOW COUNTER OR LAVATORY UNITS

- 12'-48'
- 28'-30'
- 36'

1 Drawer, 1 Door or multiple drawers

SINGLE DOOR BASE WITH 1 DRAWER

- 24'-48'
- 36'

Double Door Base with 1 drawer up to 24" 24'-48" has 2 drawers

DOUBLE DOOR BASE WITH OR WITHOUT SPIN SHELVES

- 36'

Courtesy National Institute of Wood Kitchen Cabinets

AMERICAN BUILDER D22
Section D Appliances - Electrical - Heating & Cooling - Plumbing & Water Supply

WOOD KITCHEN CABINET STANDARDS

- **DRAWER BASE**
  - 3-5 DRAWERS
  - Width: 12" - 30"
  - Depth: 36" - 36"

- **SIT DOWN BASE**
  - Width: 30" - 36"
  - Depth: 30" - 30"

- **DIAGONAL CORNER BASE**
  - With or without spin shelves

- **ROTATING CORNER BASE**
  - Width: 36" - 42"

- **SINK FRONT UNITS**

- **SINK CABINET**
  - Width: 21" - 48"

- **CORNER SINK CABINET**

- **SINK, CABINET COMBINATION**
  - Width: Variable

- **UTILITY OR BROOM CABINET**
  - Width: 15" - 30"

- **ACCESSORY CABINET UNITS**
  - Width: 18" - 24"

- **TRAY OR TOWEL CABINET**

- **VEGETABLE STORAGE**

- **MIXER CABINET**

- **HAMPER CABINET**
  - Width: 18" - 24"

- **BASE END SHELVES**
  - Angles: 180°, 90°

- **BUILT-IN RANGE CABINET**
  - Width: 18" - 48"
Appliances - Electrical - Heating & Cooling - Plumbing & Water Supply

KITCHEN & BATHROOM VENTILATING FAN INSTALLATION

GENERAL INSTALLATION RULES
Kitchen ventilating fans should be installed as close to the range as possible. Ceiling fans directly over the appliance; wall fans should be located 12 to 18 in. above the top of the range.

Where discharge ductwork is necessary ducts should be as large as the fan outlet opening throughout. For best results limit ducts length to 10 ft.

Elbows tend to restrict air flow. Keep runs as direct if practical.

For best results install fan that will change air in the room every two or three minutes. The following formula aids in estimating fan size needed.

\[
\text{Cu. Ft. of Room} = \frac{\text{CFM Fan Capacity}}{\text{Minutes Air Change}}
\]

OUTSIDE WALL

INSIDE WALL

D24

AMERICAN BUILDER
Section D Appliances - Electrical - Heating & Cooling - Plumbing & Water Supply

LAUNDRY PLANNING STANDARDS

Minimum work space for washer and dryer.

Minimum work space for ironer.

Minimum work space for ironing board.

Built-in ironing board.
SHALLOW WELL PUMP INSTALLATION

Details of well installations are for purposes of illustrations only. Consult your State Department of Public Health for approved methods of capping wells.

Basement
Pipe to sink or where fresh water desired

DRILLED OR DRIVEN POINT WELL
LAKE, STREAM OR SPRING

Incorrect installation but when unavoidable provide a riser and cap for removal of air.

Correct installation
To avoid air pocket it is best for suction pipe to slope upward from water supply to pump. Min amount 1" every 5'-0".

Installation where pump needs to be protected from freezing. Cover of pit should be well insulated for added protection.
For a Single room or an entire home...

TEMCO

HAS THE ANSWER TO YOUR HEATING PROBLEMS!

Whatever the size or style of the houses you build, whatever the heating problems, Temco has the answer.

Temco, Inc., Gas Heating Specialists for the Nation, makes a unit for every need — small gas room heaters for supplementary heat; gas floor furnaces for compact homes; gas wall heaters that are ideal for slab construction; and central heating systems with combination air conditioning for year-round comfort.

All Temco units are approved by the American Gas Association for Natural, Manufactured, or L.P. Gas. The heat exchangers carry written 20-year warranties to the consumer. Temco heat exchangers are finished in Ceramic-Clad, a high-temperature porcelain enamel that will never rust, never burn out. Just one of the many reasons why more builders are turning to Temco for heating equipment.

Temco, Inc., Department C-110
Nashville, Tennessee
Please send me your free illustrated booklet with full details on...

- Temco Automatic Gas Space Heaters
- Temco Automatic Gas Wall Heaters
- Temco Automatic Gas Floor Furnaces
- Temco Automatic Gas Central Heating Equipment

Name ___________________________
Address _________________________
City _____________________________
Zone _____________________________
State _____________________________
SAVE UP TO 50% ON TODAY'S MOST DYNAMIC HOME-SELLING FEATURE
—Central Air Conditioning!

New air-cooled packaged system
now available with LOW COST
American-Standard pre-fabricated
aluminum-clad fibre glass ductwork

Never before has such a small investment packed so much extra sell into a house! Central air conditioning—now cut as much as 50% in cost by American-Standard's new air-cooled package unit and pre-fab ductwork—doesn't just sit there looking pretty. It's dynamic . . . it breathes cool comfort . . . it whets your buyer's desire for quick possession of the house!

This is a twin-compressor unit—delivers 24-hour-a-day comfort. A single compressor maintains proper humidity and temperature on normal summer days; on extremely hot days both compressors operate to insure complete comfort.

Just order it as a completely installed system. No problems! No grief! Your local American-Standard Air Conditioning specialists do the whole job, furnishing the new Model ACP (covered by 5-Year Protection Plan) in either a 2 hp or 3½ hp size . . . whichever is more economical, all house construction factors considered.

Call them today and talk it over!

SPECIAL AMERICAN-STANDARD PROMOTION PLAN HELPS YOU SELL AIR CONDITIONED HOMES
Ask your local American-Standard Air Conditioning specialist for details on liberal promotion plan covering newspaper ads, direct-mail material, model home billboards and display cards, and newspaper publicity.

AMERICAN-STANDARD
AIR CONDITIONING DIVISION
ELYRIA, OHIO

AMERICAN BUILDER
The big reason for Yorktowne Kitchens' popularity with builders...

You can place all the complimentary adjectives you can think of in front of Yorktowne Kitchens (they all fit) . . . but only one properly describes their basic appeal to builders—they SELL houses.

This is because Yorktowne Kitchens, in genuine hand-rubbed birch, come in 175 different stock models . . . provide any number of appealing and distinctive combinations. Naturally, this also offers a price flexibility to fit almost any budget.

And most important, because Yorktowne Kitchens are completely stocked in more than 50 strategically located distributor warehouses, they are delivered to your job exactly when you need them.

The attached coupon brings you full particulars.

All Yorktowne cabinets are fully guaranteed against any defect in material or workmanship for a period of 5 years after installation.
There is no doubt that this year’s building market will be more competitive... but the kitchen will remain the most important single room for clinching the sale. Stiglitz Ranges and Cooking Tops for 1957 let you offer prospects more quality than ever before at less cost for both new building and remodeling. Write today for the full story, including specifications.

D30 AMERICAN BUILDER
20-year guarantee on Crane Sunnyday boilers helps sell 75 homes a month!

Read what Norman Keddy and George Vadnais of K-V Homes, Inc., say about Crane's 20-year guarantee on Sunnyday boilers.

"We have just completed a most successful year and could not let it go by without thanking our many friends.

"Your 20-year guarantee on the sections of Crane Sunnyday boilers is the biggest selling feature we ever had. We feel that it helped us sell up to 75 homes a month during 1956.

"Sunnyday boilers are the finest in the business. They're well designed, dependable, and economical. With them, we have been able to maintain the high standards of quality that are so much a part of K-V Homes."

Is the biggest selling exclusive in hot water heating working for you? Get details on the Crane Sunnyday 20-year guarantee from your Crane Heating Contractor, Crane Branch or Crane Wholesaler now!

CRANE CO. 836 South Michigan Avenue, Chicago 5 • VALVES • FITTINGS • PIPE • PLUMBING • KITCHENS • HEATING • AIR CONDITIONING

APRIL 1957
Let General Electric Built-In

Here's why these colorful General Electric Built-Ins are tops with America's builders...

Low-Cost Installation—General Electric Built-Ins are designed for fast, economical installation. Oven comes complete, requires no time-consuming assembly. Cooktop drops into place; simple plug-in connects with control panel.

"Customized" Kitchens—Customers get greater choice in kitchen plans at no extra cost. Versatile G-E Built-Ins give extra flexibility...new two-unit top simplifies custom arrangements; pushbutton controls can be mounted in base cabinet or convenient wall location; oven, cooktop can go almost anywhere!

Proven Quality—G-E equipment is favored by lending institutions and consumers alike—because world-famous G-E engineering assures long life, dependable service.

Consumer Preference—General Electric Appliances help sell homes faster...because General Electric is America's most-wanted brand of home appliances. In survey after survey, most women preferred General Electric appliances.

6 Glamorous Colors—Choose from the six proven, most-liked kitchen colors. Canary Yellow, Turquoise Green, Woodtone Brown, Petal Pink and White. Also available in Satin Chrome and Stainless Steel.

De Luxe Features—All the de luxe cooking features your customers want: fingertip pushbutton controls; extra-wide oven with automatic control and minute timer; enclosed all-Calrod® bake and broil units—no old-fashioned open coils; extra-high speed surface units, and lots more.

NEW 2-UNIT COOKTOP GIVES EXTRA FLEXIBILITY...

Use two 2-unit sections for a "divided cooktop" around a corner or along a counter. Section is reversible—install with large unit in front or in back.

Add a 2-unit surface section for more cooking capacity—you can install it beside a 4-unit section, or in any convenient location in your kitchen.

Install two 2-unit sections along the wall end to end—an arrangement that adds extra counter space in front where it's most convenient for meal preparation.

KEEP DOWN INSTALLATION COSTS...SAVE TIME, SAVE LABOR...

"Slide-in Oven" Installs in Minutes! One-piece G-E Oven, with seamless front panel requires no assembly...comes complete, ready to fit into cabinet or wall. Simply slide it into place in any standard 27-inch cabinet!

Install Cooktop Standing Up! Simple connector cable for remote pushbutton switches plugs into cooktop. Just drop cooktop into place, then fasten it to counter by reaching through Calrod openings and tightening a few convenient thumbscrews.
Ranges **Sell your homes!**

This G-E Built-In Range in dramatic Canary Yellow is speeding sales for Munsey Park Estates, Inc., a Long Island development of 72 custom-built homes. Across the country, General Electric Built-Ins are giving a "decorator kitchen" look to homes in every price bracket from $7500 to $75,000.

Put G-E Built-In Ranges to work for you . . . for dimensions and complete installation data, write to Range Department, General Electric Company, Louisville 1, Kentucky for Specification Sheet, Pub. No. 3-1085, or call your General Electric distributor.

*Progress Is Our Most Important Product*

**GENERAL ELECTRIC**
NOW...LOW COST, COMPLETE STEEL KITCHENS

ONE SOURCE - RANGES, CABINETS!

Oakland’s new package kitchens offer electric or gas cooking, brand-new cabinet styling plus time- and cost-saving installation! You order what you want. You one source is Oakland, manufacturers of heating and cooking appliances for 51 years! Send us your kitchen plans today for free estimate and cost information! You can’t afford not to!

STEEL CABINETS (except for front panels) are rust-resistant, welded and boxed for extra strength. Drawers roll on ball bearings, magnetic door catches.

ELECTRIC OR GAS models interchangeable...all rough-in speeds installation, lowers cost!

COUNTER TOPS OPTIONAL. You can make extra profit on this installation!

STAINLESS STEEL CUSTOM TOPS available. Low price!

HOODS in lengths from 24" to 60" (units of 3'). Brushed chrome or baked enamel finish.

TWIN-BLOWER VENTILATORS. 100 CFM Blower Unit installs under 18" wall cabinets. 4" diam. vent.

FILLERS for both wall and base cabinets.

CABINET DETAIL

Base: 21 15 18 24 30 36 Single Door 8 or 15, 18, 21 wide Wall: 15, 18, 21 wide Corner (roto): 24 27 30 36 43 48

One drawer, one door One drawer, two doors Three drawers

Range base 24/28 Oven base 24/22 34½ No end panels except exposed end. Bolt holes.

Drop-in cooking units

(Gas and Electric Models Interchangeable)

4-Burner Drop-In Electric No. 21E Gas No. 20G

2-Burner Drop-In Electric No. 52E Gas No. 51

Oven cabinets:

Over: 24/22 Base: 24/24 Stack-on oven unit at right comes complete.

ELECTRIC and GAS MODELS INTERCHANGE!
Some Rough-In Dimensions for electric or gas oven-broiler units, also for drop-ins!

20" OVENS: STACK-ON, BUILT-IN...BAKE AND BROIL AT SAME TIME in electric units!

OVENS are 20 or 16 inches wide, 19 inches deep, 14 inches high. Heavy plated racks have built-in stops. Robertsow Automatic Temperature Controls. Non-frosting glass in oven door, electric light inside.

ELECTRIC No. 3525E (20") No. 3621E (16")

GAS No. 2535 (20") No. 2136 (16")

Matchless gas oven thermostat controlled, automatic shut-off. Venting connection available on 16" oven.

SEVEN OVEN FINISHES

- Satin chrome door panels, brite chrome frame.
- Polished copper frame with porcelain panels of simulated oxidized copper.
- Brite chrome frame with panels in white, sunshine yellow, soft pink, pastel green, black.

DESIGN EXCLUSIVE! "SLIP-OUT" DECORATOR PANELS ON ALL CABINET FRONTS!

"Never gets tiresome!"

Color decor can be changed later, easily! Custom front panels insert in bright steel channel framing secured with only two screws on drawers and door hinges.

Laminated plastic panels finished in Birch, Lincoln, Coral Linen, and Blue Linen.

Also, permanent steel panels (without trim) in turquoise, yellow, pink, white.
Tri-W Builders, developers of the beautifully designed RANCHO CABRILLO subdivision in San Diego, California, has featured quality construction in all of the 675 modest priced but charming "Great America Homes" in this 215-acre residential area.

Throughout this large development the complete plumbing system — street to roof — is CAST IRON SOIL PIPE. This includes Cast Iron house sewers, main vents, branch vents, and drains — insuring home buyers permanent freedom from plumbing drainage trouble and expense.

Attractive homes at Rancho Cabrillo have met a wonderful reception. More than 100 were sold recently before models could be completed and opened for inspection. They feature three and four bedrooms, with 1, 1½ and 2 baths, built on lots varying in size from 60x100 feet to half an acre, with the finest of materials used throughout. All homes are fully landscaped with trees, shrubs and plants.

With 32 years' broad building experience, Tri-W Builders has a fine reputation for quality workmanship in all subdivision products — a policy that has never failed to pay in a big way.
Complete Built-in HOME LAUNDRY IN 25 INCHES

Built-in Space-Mates install vertically

Westinghouse introduces an exciting new 25" wide Laundromat and matching 25" wide Clothes Dryer. The Dryer sits on top of the Laundromat in unique, vertical installation . . . provides a complete home laundry in minimum space.

Both models are completely automatic . . . will wash and dry a full family-size load of clothes. They are also available in free-standing models and in all of the new Westinghouse Confection Colors.

Undercounter Installation—Built-in Space Mates also install under custom counter surface for side-by-side use.

Deluxe Laundry Twins—America’s favorite free-standing twins, the deluxe Laundromat and Clothes Dryer are shown adjacent to the kitchen. Both models have new Color Glance Controls plus many other deluxe features.

Wash 'N Dry Laundromat—First it washes . . . then it dries, all in a single, space-saving unit, 32" wide. Has Weigh-To-Save Door and Water Saver for economy, flexible controls and automatic operation. Can be built into closet or alcove as shown.

All models shown are available in new Confection Colors

See your Westinghouse Distributor for complete details on Westinghouse Laundry Equipment, or write direct to our Contract Sales Department.

WATCH WESTINGHOUSE
WHERE BIG THINGS ARE HAPPENING FOR YOU!

Westinghouse Electric Corporation, Major Appliance Division, Mansfield, Ohio
Greater Comfort and Beauty!
The evenest heating known and the
greatest decorating freedom both come
with Base-Ray® cast-iron radiant base-
board. It sells itself on sight. There is
nothing to interfere with comfort or fur-
niture arrangement... no bulky radia-
tors, no hot register blasts, no drafts or
cold spots. Floor-to-ceiling temperatures
vary less than 3°. And Base-Ray is the
original radiant baseboard... proved
silent and trouble-free through more
service than any other! You can count
on Base-Ray... the time-tested radiant
hot water heating system.

Two quality products that will
MAKE YOUR HOMES SELL FASTER

Pace-Pak
Lower installation costs!
Economy operation!

Here’s a cast-iron oil-fired boiler that’s
completely factory assembled and tested
before shipment. All wiring, controls and
equipment are the finest, carefully chosen
by Burnham. Pace-Pak® is ready to go
when you take it from the sturdy skid-
bottom shipping crate. Installation time
and call-backs for adjustments are at
rock bottom when you choose Pace-Pak.
Its advanced Vertical Flue Travel and
Twin Combustion Chamber design get
the most from fuel, too. Pace-Pak means
comfortable, economical heating — with
automatic year ’round hot faucet water
too.

Burnham Corporation
BOILER DIVISION, Irvinton, N.Y.
First in the manufacture of baseboard heating

AMERICAN BUILDER Reference File

AIR CONDITIONING
This 8-page catalog covers with de-
tailed drawings, specifications and
photos the firm’s line of heating and
air conditioning units.—Majestic
Co., Inc.

Circle No. D1 on reply card Section G

HEATING & COOLING
New 30-page catalog shows firm’s
full line of forced air furnaces as
well as central air conditioning sys-
tems. Includes photos, specifications
and detailed drawings.—Utility Ap-
ppliance Corp.

Circle No. D2 on reply card Section G

ELECTRIC HEATING
Bulletin 800A gives full details on
“Chromalox” electric baseboard
heating. This baseboard comes in
prime finish so that it can be deco-
rated to match the room.—Edwin
L. Wiegand Co.

Circle No. D3 on reply card Section G

FURNACES AND HEATERS
New literature gives information on
firm’s full line of gas central heat-
ing equipment, as well as its variety
of space heating units.—Temco,
Inc.

Circle No. D4 on reply card Section G

AIR CONDITIONERS
Central air conditioners for homes,
offices and stores are covered in
color booklet. Includes installation
diagrams, mechanical specifications.
—O. A. Sutton Corp.

Circle No. D5 on reply card Section G

HEATING DUCTS
Fibre ducts for warm air perimeter
heating systems are shown and de-
scribed in four-page brochure. Con-
tains perimeter system technical de-
tails.—Sonoco Products Co.

Circle No. D6 on reply card Section G

AIR CONDITIONING
Air conditioning equipment for
homes as well as commercial build-
ings is completely illustrated and
described in this loose-leaf file.—
Perfection Industries.

Circle No. D7 on reply card Section G
PREWAY’s great built-in Refrigerator-Freezer

easiest-to-install
fastest-to-install
lowest cost-to-install

No Kits
No special framing
No extra labor cost

PREWAY provides the newest news — and the best news — in a built-in Refrigerator-Freezer — a 13 cubic foot all-in-one unit that has everything the housewife wants and the builder needs.

For the homemaker there’s striking beauty in appearance, inside and out. There is more shelf room by far than comparable conventional refrigerators provide, plus all of the accessories in roll-out shelves, crisper drawers and the like. There is fully automatic operation — no defrosting is ever needed. The freezer holds 156 lbs. of frozen food — operates independently, for one compressor serves both units.

For the builder there is the most simple installation there can be. Made with a formed steel frame as a base, this PREWAY refrigerator-freezer just skids in place and plugs in. You see it demonstrated here.

You’ll be glad to know, too, that this great all-in-one unit is available in coppertone, stainless steel and in a flat finish that takes any color beautifully. Complete information in a full color bulletin is yours for the asking.

PREWAY Inc.
8457 Second Street, N.
Wisconsin Rapids, Wis.

APRIL 1957
New General Electric "Straight-built-in kitchens without"

Your G-E distributor can give you so much help—from plans right through to sale!

Help in planning! General Electric's Custom Kitchen-Laundry Design Service will help you in designing kitchens, improving layouts.

Help in color styling! A General Electric Distributor builder specialist works with you on appliance deliveries, installation, even on color coordination.

Help in publicity! General Electric Model Home Program gives you advertising, publicity, merchandising help based on hundreds of success stories.

Help in selling! You get on-the-spot demonstrations of your General Electric Kitchens by experts—everything you need for sales action!

Send this now!

GENERAL ELECTRIC COMPANY, HOME BUREAU
Appliance Park, Louisville 1, Kentucky

Yes! Send me by return mail General Electric's free builder handbook containing complete information on the new General Electric "Straight-Line" Design Kitchens.

NAME.....................................(PLEASE PRINT)

STREET ADDRESS..........................

CITY............................STATE..........................

PUB. NO. 924-0380. ARR.
Line" Appliances give you the look of built-in expenses!

No rounded corners! No bulging sides! Every appliance fits flush.

That kitchen in the picture looks every inch a built-in. You can see that. But there's one big difference: actually this kitchen is a grouping of easily installed free-standing components. All appliance sides are flat. All appliance corners are square. All appliances fit flush. This is the new General Electric "Straight-Line" appliance concept.

Think of what this means to your prospects: the latest in kitchens... with the brand name women prefer—General Electric.

You can start putting these kitchens in your houses tomorrow. No waiting. They'll suit "U", "L", or "Island"... or any layout you have in mind. They're available in a multitude of sparkling color and design variations. They'll fit any price house you are building... $9,600 to $96,000.

See your General Electric distributor or dealer—or write: General Electric Company, Home Bureau, Appliance Park, Louisville 1, Ky.
**Quality**

...means more for YOU*

...means more for your CUSTOMER**

* i.e. Permalume 172-B Double-rollaway tub enclosure with "New Orleans" sand-carved design.

**QUALITY means Permalume**

SHOWER ENCLOSURES

* Feature the BATHROOM...
A beautiful bathroom is the sales-clincher to Mrs. Homebuyer. Nothing adds the bathroom glamour, the labor-saving practicality of a Permalume Shower Enclosure.

** Quality is the KEY WORD...
Today's buyer's market in building demands quality in construction and detail. There is no substitute for Permalume, America's best designed and engineered, and most-wanted shower enclosure.

*** Save YOURSELF...
Permalume Shower Enclosures install in minutes on any finished walls. Tub enclosures install without drilling tub walls or rim—no screws necessary. Heavy 7/32 sheet glass.

*** Presold and GUARANTEED
Nationally advertised and accepted. UNCONDITIONALLY GUARANTEED for 17 YEARS.

For name of your nearest distributor and further information, fill out this coupon and mail to:

Shower Door Company of America
Dept. AB-457
1 Permalume Place, N.W., Atlanta, Ga.

Name________________________ Address________________________

City and State________________________

World's Largest Manufacturers of Shower Enclosures

---

**ELECTRIC HEATERS**

Complete line of electric heaters for the home is described in full color in this literature. Shows wall and portable heaters as well as radiant panel and baseboard types. Also contains interesting facts regarding this type of heating.—Electromode Div., Commercial Controls Corp.

Circle No. D8 on reply card Section G

**HEATING**

Folder contains loose-leaf specification sheets with illustrations on complete line of automatic gas and oil fired heating equipment.—Perfection Industries.

Circle No. D9 on reply card Section G

**HEATING, COOLING EQUIPMENT**

New literature gives details of Mor-Sun lines of oil- and gas-fired forced warm air furnaces; and residential and light commercial air conditioners.—Morrison Steel Products, Inc.

Circle No. D10 on reply card Section G

To sell Construction TOOLS and EQUIPMENT pre-sell the BUILDER!

AMERICAN BUILDER

is read by more builder-buyers than any other building publication.
NEW TAPPAN BUILT-INS CUT YOUR COSTS!
One cut-out for either gas or electric ovens

SALES BUILDER: TAPPAN BUILT-IN GAS OVEN WITH SEPARATE ROLL-OUT BROILER gives wonderful freedom and economy because it's interchangeable with electric units in the same cut-out. Oven teams perfectly with any Tappan surface unit . . . and may be serviced without removal from cabinet or wall. Like all Tappan Built-ins, it is easy and inexpensive to install.

MONEY-MAKER: TAPPAN ELECTRIC DOUBLE OVEN, JUST 24 INCHES WIDE, interchanges with Tappan gas oven units without extensive installation work. Doubly great! Dinner roasts in one oven while cakes or pies bake in the other. It's convenience every woman dreams about.

LOOK! INTERCHANGEABLE SURFACE UNITS, TOO!

In the complete Tappan line, there are interchangeable gas and electric surface units to fit every buyer's building or remodeling plans. You can offer your customers a choice of three gas and seven electric surface units, ranging in size from 24" to 42". Special convenience features such as Set 'n Forget thermostatic control, a large built-in griddle and a Nu'Tone food center are also available on Tappan surface units!

...and all these best looking, best cooking features:

Chrome or porcelain-lined ovens for top baking results! Visualite windows optional! Handsome Lusterloy or Copperloy finishes, plus lovely pastels! Built-in Rotisseries! Lift-off oven doors! Eye-level automatic controls! Separate roll-out broiler drawer . . . all the most-wanted convenience features that help sell homes fast! The Tappan Stove Company, Mansfield, Ohio

NOTHING COOKS, LOOKS LIKE A TAPPAN

- Leader in built-in ranges
- First with electronic cooking for the home

APRIL 1957
Compelling advertising like this sells women!

word soon
gets 'round
when you
give your
home this
newest,
smartest
woman's
touch

It's not the hors d'oeuvres... not
the attractive table setting that
wins the praise of all your guests—it's
that's
viled.

Inox
FAST, complete service
has 427 only your Lennox pe-
only Lennox itioning such 38 ftsman can give!

FREE! Big-space national
ads with your
name and address!

These ads are part of the new
Lennox Woman's Touch pro-
gram, designed to get women
into your model homes! Two-
page ads in Woman's Day and
Family Circle... plus ads like
the ad shown here, in Vogue and
McCull's... plus home-feature
ideas... plus many selling aids —all work to sell women on
your homes.

ONLY Lennox has 127
heating and air conditioning
models—one for every need!

The most important Woman's
Touch of all is Lennox all-season
air conditioning. Surveys show
that 88% of women want air
conditioning in their homes.
And there's a Lennox heating
or cooling unit for every home,
regardless of size or design.
Lennox engineering takes the
worry out of installation, service
and operation.

FAST, complete service
such as only your Lennox
Comfort Craftsman can give!

Your local Comfort Craftsman
has been factory-trained by
Lennox experts to plan and in-
stall Lennox systems to meet
your most exacting needs. He
works directly with Lennox.
For information about the
Lennox Woman's Touch pro-
gram, call him today, or write
Lennox, Merchandising Dept.
AB-4 Marshalltown, Iowa.

SEE OUR CATALOG
IN WOMAN'S LIVI
CONSTRUCTION FILE

More families buy
LENNOX
world leader in all-season
air conditioning for the home
eclipse that solar heat with

Coleman air conditioning

priced for every house under the sun

Adds more sales value than any other one feature you can put into your homes!
Yet new low Coleman prices make it possible to build air conditioning into even low-cost project homes.

It's the most versatile cooling line ever offered to builders! Choice of packaged remote systems... or the revolutionary new Polar-Pak waterless self-contained system... one for every size and type heating system.

Coleman POLAR-PAK
All-new waterless self-contained system.
The ONLY unit of its kind that ventilates as well as cools! Installs anywhere indoors—or outdoors!

Choice of Remote Systems

New economy AIR COOLED condenser. No plumbing.

Exclusive "AIR-MIST" finest condenser money can buy! Proved the most cooling power at LOWEST operating cost.

The Coleman Company, Inc.
Dept. AB-74, Wichita 1, Kansas
Please send me complete specifications on your Coleman air conditioning.

Name ____________________________
Firm Name ____________________________
Address ____________________________
City ____________________________ Zone ______ State ______
This Modern Multi-Level Home

heated with THRUSH

Radiant Hot Water Heat

Here's a beautiful home that introduces many new ideas in gracious living. Being a multi-level home, it is naturally heated with hot water. Both radiant coils in the floor and radiant baseboards are used. The broad expanse of windows makes the front of the house practically out-of-doors so baseboard radiation is added. There are four zones each controlled by a Thrush Radiant Heat Control, a Thrush Circulator and Thrush Flow Control Valve. Zoning is simple and inexpensive by this method, yet desired temperatures are maintained in each part of the home automatically.

With Thrush System, it's just like living in a mild climate all winter long no matter what the weather outside may be. Best of all, installation costs are lower, fuel consumption is reduced and maintenance is negligible.

See our catalog in Sweet's or write Dept. G-4 for booklet and any information you may require in planning home heating.

H. A. THRUSH & COMPANY
PERU, INDIANA

FREE BOOKLET ON REQUEST

AMERICAN BUILDER
Built-In Gas Range Units
with FREE-STANDING
Range Flexibility

Designed for the builder—priced for the builder—the completely new Florence "Custom-Craft" Built-In Free-Standing Cabinet Oven-Broiler is as easily installed as the ordinary gas range.

In addition, Florence offers a wide selection of packaged counter units—4 Burner Stack-Ons and 5 Burner Stack-Ons, including exclusive Florence "Governess" center burner and griddle, complete with matching cabinets. Finished in satin chrome or copper tone.

Florence Built-In cabinet oven-broiler units and stack-ons require only gas and electrical connections—as quickly in place as an ordinary free-standing gas range.

Mail coupon for complete information, specifications, prices.
How new Eljer developments simplify installation . . . add sales appeal!

**Simplifies installation!**
Eljer formed-steel bathtubs may be installed at a substantial saving in time. With just 3 bearing surfaces (see picture) these baths may be quickly positioned and shimmed level, even on rough solid floors. Moreover, wall clips anchor bath to studding for extra rigidity. Result: fast, sturdy installation.

**Add sales appeal!** The new Eljer line of brass fittings . . . most modern in the industry and completely renewable . . . help give bathrooms the modern look that sells homes faster. With Eljer fittings and Eljer fixtures you get the very latest in bathroom beauty. One source—one responsibility—at no extra cost!

Find out more about all Eljer products, including steel kitchens. Call your Eljer wholesaler or write Eljer Division of The Murray Corporation of America, Three Gateway Center, Pittsburgh 22, Pennsylvania.

*ELJER ... the only name you need to know in plumbing fixtures*
SWAY HER "HOME-BUYING DECISION" WITH THE NEW

Caloric

BUILT-IN GAS RANGE

Usually it's the woman who makes the final decision "to buy or not to buy." And what woman doesn't base her home-buying decision largely on the kitchen? She'll like this completely new Caloric oven-broiler unit . . . the separate top burner units that can be conveniently placed to save steps, save time. (She can choose from 7 porcelain enamel colors, plus bright and satin metal finishes.) Install this beautiful Caloric Built-In and watch it "swing the sale."

MEAT THERMOMETER provides precise, automatic control in roasting. Thermometer is set and inserted. Turns oven off automatically when meat is done.

MORE SPACIOUS OVEN is 1\% inches deeper. Complete oven-broiler unit looks larger, but fits the same cut-out dimensions of previous Caloric Built-In gas ranges.

THERMO-SET TOP BURNER gives same temperature control to top burner cooking that's available in oven cooking. Makes every pot and pan "automatic."

NEW! ROTO-ROASTER rotisserie lets family have a barbecue any day of the year. Meats come out moister and more tender than conventional oven-roasted meats.

The built-in gas range specified by leading home builders for America's best homes.

CALORIC APPLIANCE CORP., TOPTON, PA. • RANGES • DRYERS • BUILT-INS • DISPOSERS

APRIL 1957
THERE'S A **Fasco** VENTILATOR in EVERY FORWARD LOOKING PLAN

**Model 1066** . . . Adjust-O-Hood - Adjusts from 30" to 42". Low cost, easy installation.
**Model 847-1047** - Thru-the-wall ventilator, operates automatically with pull chain. 8" blade . . . 475 CFM. 10" . . . 650 CFM.

**Model 650** . . . Absolutely the trimmest Bathroom Ventilator. Only 5½" high, fits inside 6" joints without protruding. No header necessary. 100 CFM.

**Model 882-1082** - Automatic thru-the-wall vent. Operates from wall switch. 8" blade . . . 375 CFM. 10" . . . 550 CFM.

**Model 880-1080** - Ceiling vent for 1-story homes. Low cost, Simple installation. 8" blade . . . 475 CFM. 10" . . . 660 CFM.

**Model 720** - For ceiling or inside walls. 7" blade . . . CFM-325, 300, 235.

**Model 1075** . . . Power-Hood - Ventilator built right into hood. Takes no cabinet space. Adjusts 30" to 42".

When building or modernizing, for those two most used rooms in the house—the kitchen and bathroom—always specify the finest in ventilators . . . ask for FASCO—designed in accordance with the most advanced engineering techniques and superior styling. With each FASCO vent, you make available to your customer service-free performance . . . efficient longer-lasting operation. With each FASCO vent you assure yourself of unexcelled value . . . through money-saving installation . . . and economy investment costs. And FASCO has such a wide choice of models, priced to meet any budget—because it’s America’s most complete line of ventilators.

Write for catalog of complete line of FASCO Bathroom and Kitchen Ventilators and Hoods.

**Fasco Industries Incorporated**, 21 Augusta Street • Rochester 2, New York

D50

**American Builder**
In this addition to a school building, the plumbing contractor took advantage of the light weight and long lengths of copper tube to complete much of his roughing-in well ahead of other construction.

Only Copper gives you money-saving short cuts like this

YOU have more control of time and installation costs when you use copper tube in plumbing.

Other construction doesn’t tie you down. The long lengths and light weight of copper tube enable you to work ahead of other building construction — as in the job shown above — to complete much of the roughing-in when it’s most convenient for you.

You can save man-hours — utilize time that otherwise might be wasted in waiting around — by prefabricating sections, at the shop or on the job site. Just the ease of using solder-joint fittings makes installation simpler and faster. Contractors report that installation time has been reduced one-third to one-half.

Anaconda Copper Tubes are available in all standard wall thicknesses — Types K, L, M, and the new lighter weight Type DWV Copper Drainage Tube. And Anaconda wrought and cast solder-joint fittings are available in a wide range of sizes and types.

When you install the original P&S Despard Line, you cash in on the greatest consumer acceptance for any wiring device today!

Backed by 28 years of constant improvement, the P&S Despard Line is first choice with home buyer—with builder—with electrical contractor. It adds to your reputation for offering only the very best in your houses.

P&S Despard combinations of two or three switches (exclusive Roto-Glo®, and regular toggle type), outlets, and special devices are assembled on the job—in a matter of seconds. Combinations fit in a one-gang standard size plate. Accurately engineered . . . produced with precision . . . the P&S Despard Line assures dependable, trouble-free performance for the life of the home.

Take advantage of P&S merchandising aids. For your FREE supply of consumer folders, magazine ad displays, mobiles, switch tags and newspaper ad mats, see your wholesaler or write direct to Dept. AB-9.

PASS & SEYMOUR, INC.
SYRACUSE 9, NEW YORK
60 E. 42nd St., New York 17, N. Y. 1229 W. Washington Blvd., Chicago 7, III.
In Canada: Renfrew Elec. & Refrig. Co., Ltd., Renfrew, Ontario

MAKE THE COMPLETE JOB COMPLETELY P&S
Root water splashing down leads to trouble and expense...

wet floors in basement or garage...flooded yard, lawn, driveway. Orangeburg Root-Proof Pipe makes ideal drain lines to carry it away...

and at low cost. They become one of those extras that help close the sale.

250,000,000 Feet of Orangeburg Pipe in service today!

...and downspout run-offs are one of its popular uses

Orangeburg's lightweight 8-foot lengths save installation costs. Taperweld Joints seal root-proof with a few hammer taps...no cement, no compounds. Orangeburg is strong and tough. Lines 50 years old, going strong today, prove its durability.

Orangeburg Root-Proof Pipe is made in 2", 3", 4", 5" and 6" diameters...for sewer lines from house to street main or septic tank; for downspout run-offs, storm drains and other non-pressure underground outside lines. Orangeburg also comes Perforated in 4" size for foundation drains, septic tank filter fields, draining wet spots everywhere. Get genuine Orangeburg. Look for the Orangeburg brand name on pipe and fittings. For more facts write Dept. AB-47.

Exclusive Orangeburg Fittings featuring Taperweld Joints simplify the installation.

ORANGEBURG MANUFACTURING CO., INC. • Orangeburg, N. Y., Newark, Calif.

APRIL 1957
General Electric zone-by-zone cooling lets you completely air condition a whole house. And the system's fully automatic! Each new General Electric Built-In Thinline has an automatic thermostat. As the sun moves around the house, the unneeded units turn off and those in the warm rooms go on. Your buyers don't have to pay for cooling they don't need.
conditioning—zone by zone

with the new General Electric Built-In Thinline

Here at last, is a permanent air conditioning system that’s easy for you to install—economical for your buyers to operate. The General Electric Built-In Thinline Air Conditioner gives your homes zone-by-zone cooling—with no plumbing or costly ductwork, no wasted floor or window space.

The case is shipped to the site first—installed through the wall during construction. The mechanism slides easily into the case when the building is complete. With Thinline styling there’s no unsightly overhang inside or out to mar the appearance of the house.

Buyers Will Like the Economy

Thinlines are economical to operate—there’s no need to pay to cool rooms that are not in use. And there’s one for every home-cooling need. Built-In Thinlines come in ½, ¾ and 1 hp. models. All fit the same size case.

Every Thinline is pre-sold through national advertising—backed by expert service and a written guarantee—designed to meet FHA requirements. See your General Electric distributor for full details.

General Electric Company, Louisville 1, Kentucky.

SPECIFICATIONS: BUILT-IN THINLINE

<table>
<thead>
<tr>
<th>Model Number</th>
<th>RB32P</th>
<th>RB52P</th>
<th>RB72P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressor Motor</td>
<td>½ HP</td>
<td>⅔ HP</td>
<td>1 HP</td>
</tr>
<tr>
<td>Volts—60 Cycle</td>
<td>115</td>
<td>115-230</td>
<td>230</td>
</tr>
<tr>
<td>Watts (nameplate)</td>
<td>7.5</td>
<td>11.0-5.5</td>
<td>6.8</td>
</tr>
<tr>
<td>Watts (ASRE)</td>
<td>800</td>
<td>1,150</td>
<td>1,480</td>
</tr>
<tr>
<td>BTU/Hr. Capacity*</td>
<td>5,500</td>
<td>7,700</td>
<td>10,100</td>
</tr>
<tr>
<td>Dehumidification (Pts./Hr.)</td>
<td>1.1</td>
<td>2.1</td>
<td>2.9</td>
</tr>
<tr>
<td>Two Speed Fan Switch</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Width</td>
<td>25½</td>
<td>25½</td>
<td>25½</td>
</tr>
<tr>
<td>Height</td>
<td>27½</td>
<td>27½</td>
<td>27½</td>
</tr>
<tr>
<td>Depth</td>
<td>17 7/16</td>
<td>17 7/16</td>
<td>17 7/16</td>
</tr>
<tr>
<td>Ship. Wt. (Case)</td>
<td>37 lbs.</td>
<td>37 lbs.</td>
<td>37 lbs.</td>
</tr>
<tr>
<td>Ship. Wt. (Unit)</td>
<td>146 lbs.</td>
<td>152 lbs.</td>
<td>164 lbs.</td>
</tr>
</tbody>
</table>

*Cooling capacities are tested and rated in compliance with ARI (Air Conditioning and Refrigeration Institute) Standard 110-56 and are stated in BTU’s (British Thermal Units).

Add appearance front, air filter, grilles. Plug in and the Thinline is ready to run. Grille can be painted to match any décor.

On the outside the Thinline’s aluminum grille will keep its smart good looks for years. Easily painted to match the exterior.

Progress Is Our Most Important Product

GENERAL ELECTRIC

APRIL 1957
Here is the feature which lifts your homes out of the commonplace class....adds value far beyond the actual cost. No other type of system can offer so many possibilities for more comfortable, more convenient living.

The B & G Hydro-Flo System employs circulated water to provide the advantages only water can give. It can be installed initially as a forced hot water heating system, with all the benefits of controlled radiant warmth, plus a year 'round supply of low-cost hot faucet water. It can be inexpensively zoned to permit different temperatures in different parts of the house.

Other Hydro-Flo features can be included, either when building or at any time thereafter. Summer cooling, for example, using chilled water in a choice of several ways. Or snow melting pipe coils under driveway and sidewalk, using the regular boiler to supply heat.

All the facts are given in a new color-illustrated booklet. Send for your copy—see why more and more builders are turning to the B & G Hydro-Flo system.

In this home development, 300 homes were sold over one week-end. Not the least of the factors which influenced this rapid sale is the fact that these homes are equipped with baseboard forced hot water systems using B & G Hydro-Flo equipment.

**ONLY WATER OFFERS ALL FIVE!**

- Heating
- Cooling
- Hot Faucet Water
- Snow Melting
- Zoning

This modest home is heated with a B & G Hydro-Flo System, with baseboard panels as the heat distributors. Note the sign—the builder is capitalizing on the sales-making appeal of controlled radiant heating, plus a year 'round supply of hot faucet water.

Typical space-saving B & G Hydro-Flo System heating plant. The boiler has a built-in water heater.

**BELL & GOSSETT COMPANY, Dept. ET-11, Morton Grove, Illinois**

Please send your free booklet on the B & G Hydro-Flo System.

<table>
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D57
It's the nationally famous
Rangaire
the "sellingest"
kitchen stove hood
on the market!

It's the kitchen stove hood
housewives are wanting.
The Rangaire's decorator
styling, its efficient squi-
rel cage-type exhaust unit,
its permanent-type alumi-
num foil filter that's re-
movable for easy clean-
ing in hot soapy water are
features that cinch the
sale! Investigate . . . com-
pare . . . and you will see
why the Rangaire leads!

LIST

WHITE BAKED ENAMEL . . $64.95

COPPERTONE BAKED ENAMEL . $69.95

SOLID COPPER or
STAINLESS STEEL . . . . $114.95

(Prices for 42" size or less)

All sizes and colors available.
Prices slightly higher on
West Coast and in North-
eastern States.

Write Department A
for information on complete line of
Island Type - Canopy Type - Custom Made Hoods

ROBERTS MANUFACTURING CO., Cleburne, Texas

HEATING

Literature offered includes bro-
chures on oil-burning wall furnace;
electric baseboard heater; foil-lined
fibre heating duct. Gives features;
includes perimeter heating layouts.
—International Oil Burner Co.
Circle No. D17 on reply card Section G

HEATING

Newest catalog features complete
line of automatic gas, oil and coal-
fired boilers, giving dimensions and
specifications. Also included is data
on firm's line of radiators for all
types of installations.—Dunkirk
Radiator Corp.
Circle No. D18 on reply card Section G

AIR CONDITIONING

Several types of air conditioning
units for the home are shown in
brochures available. Features air
cooled condensers for economical
operation.—The Coleman Co., Inc.
Circle No. D19 on reply card Section G

HEATING

Literature is available on gas heat-
ing systems for home, commercial,
school and industrial uses. Espe-
cially featured: the "Three-Sixty"
overhead heater.—Norman Prod-
ucts Co.
Circle No. D20 on reply card Section G

WATER CIRCULATING
SYSTEM

Colorful 16-page booklet tells fea-
tures of "Hydro-Flo" system for
heating and cooling. Contains sec-
tions on house zoning and on mod-
erning old heat systems.—Bell &
Gossett Co.
Circle No. D21 on reply card Section G

AIR CONDITIONING

Room air conditioner covered in
this brochure is installed in wall.
Specifications are given and pos-
sible installations shown.—Air
Conditioning Division, Welbilt Corp.
Circle No. D22 on reply card Section G
The trim, low lines of the Minocqua bath have been given fresh selling appeal with the addition of a 4-inch bench rim.

Space-saving dimensions solve many problems caused by limited space available in today's homes, yet the Minocqua affords the convenience, comfort and safety of the full 5-foot length, slope end, flat bottom.

The sparkling, easy-to-clean enamel of the Minocqua—like that of all Kohler baths—is fused to a base of non-flexing iron, cast for strength and rigidity. The complete line of Kohler baths includes sizes and styles that permit various arrangements in bathrooms of any shape or size.
MYERS WATER SYSTEMS
the right price and size for your market

For the all-around water requirements of modern living, the Myers "HN" Ejecto will provide complete water-supply satisfaction.

Whether you're building small-budget homes or suburban estates beyond the city water mains, you can afford to choose a Myers with all the capacity and pressure the home needs. Homes sell faster when equipped with nationally known, brand-name products, and Myers has a long-standing national reputation for high quality.

Every Myers water system is factory tested and fully guaranteed for one year after installation. This is one more point that helps you sell prospective homeowners who are buying beyond the city water mains for the first time.

Write today for a free catalog showing the full line of Myers quality Water Systems and the name of the nearest Myers distributor.

The Myers Submersible will deliver quiet, fully automatic service where plenty of water and "plus-pressure" are desired.
Declarations by the Mayer-Raisher-Mayer Construction firm of St. Louis, Missouri, highlight the benefits of the Vornado Residential Air Conditioning Unit.

Prod in Thousands of Homes!

"Proven in Thousands of Homes!

Declares Herman B. Mayer of Mayer-Raisher-Mayer, "The Vornado Residential Air Conditioning Unit has solved two major problems in our Paddock Hills Subdivision, St. Louis, Missouri."

"By proper engineering, we have been able to keep our installation cost low and include air conditioning in every home that we build.

"Secondly, the overall cost of the unit and installation makes it a good buy for the home purchaser. It adds very little to the monthly payments, guarantees comfortable living during the hot summer months, and at an operating cost well below other type units.

"As builders, we realize that air conditioning directly affects sales of our new homes, it assures satisfied home owners during the summer months, and is a large factor in resale of our homes..."

Vornado Residential Air Conditioner...
ideal for every home in every price bracket

Vornado* Installs Easier Performs Better

- Complete Package. Vornado puts air conditioning in self-contained, air-cooled package. No extra plumbing, water connections, outside accessories.
- Twin System. Two hermetically sealed, heavy-duty compressor units deliver unequalled capacity.
- Factory Warranty. Assures satisfactory service. Over 7 million satisfied Vornado users.
- FHA-VA. Meets all FHA and VA requirements.

send this coupon today
The O. A. Sutson Corporation, Inc. 1812 West Second Street, Wichita, Kansas.
I want complete information on your new versatile low-cost Vornado Central Air Conditioners. It is understood there is no obligation.

Name_________________________ Firm_________________________
Position________________________ Address________________________
City_________________________ State________________________

APRIL 1957
Announcing

TRADE-WIND

No. 1801 Oven Ventilator

Guaranteed by Good Housekeeping

AMERICAN BUILDER
Here's the remarkable new Trade-Wind Oven Ventilator for both built-in gas and electric units. Engineered with more than adequate suction to remove the blast of oven heat, odors and greasy air each time the door is opened... and to keep the kitchen comfortably cool as long as the oven is in use. In addition to a handy on/off switch, the ventilator is equipped with automatic thermostat control for complete protection.

This beautifully designed unit is another quality first from Trade-Wind. It combines the finest style... super performance... and easy installation.
STEP ONE
Rough-in wall opening only 20¼" x 29".

STEP TWO
Make simple electrical wiring connection.

EXCLUSIVE “FRENCH DOOR” WALL OVENS give more flexibility to kitchen designers... center-opening doors swing out to allow more working space — take less aisle space. Come in 4 porcelain enamel colors or satin chrome. And they’re so easy to install in walls, cabinets or islands. Oven rests on a level wood shelf, needs no internal braces or external vents. Approved for zero clearance installation. These three steps are all you do...

STEP THREE
Push into wall opening. Four screws secure molding.

Step by step, Frigidaire built-ins

ALL-NEW FRIGIDAIRE “SHEER-LOOK” DESIGN

Styled to stay in style — built for the homes of tomorrow — engineered for your homes today. Frigidaire built-in and freestanding kitchen and laundry products are as clean-cut and plumb-line straight as the plans for your new homes. No space-wasting curves — no gaps to fill — here is a new concept in appliance design and engineering that makes every corner count. More builders are learning they can now offer value far above actual cost — and, at the same time, cut “on the site” time and labor expense by specifying Frigidaire products that square-up with standard counters and cabinets.

ONE STOP FOR THE MOST COMPLETE LINE OF MAJOR HOME APPLIANCES

For every kitchen, laundry, heating or cooling equipment need, call your Frigidaire Dealer or District Headquarters. Choose from the complete line including: 20 models of America’s “Handiest” Refrigerators and Food Freezers; 12 models of the “Thinkingest” Electric Ranges; 3 exclusive “French Door” Wall Ovens; 5 space-saving Fold-Back Surface Units; 2 Built-in Cooking Tops; 5 Automatic Washers and 4 Electric Dryers — the “Savingest” laundry pairs ever; 4 “Cleaningest” Dishwashers; 2 Food Waste Disposers; 16 Electric Water Heaters; 7 of the “Coolingest” Room Conditioners — and, a complete line of cooling combinations plus new gas or oil heating units for every size home.

PERSONALIZED PROMOTION TO HELP SELL YOUR HOMES

Your Frigidaire Builder Sales Representative is prepared to assist you with your merchandising plans and promotion materials — all professionally designed for your specific homes. Call your nearest Frigidaire Dealer or District Headquarters for complete information.
BUILT-IN COOKING TOPS fit 'most anywhere in the kitchen — on top of the counter next to a wall oven, next to the sink or in front of the kitchen window. Simplified "Slip-in" Installation uses no adapter rings or brackets. No front carpentry — controls are on top. Only 5-inch depth required. Come in 4 porcelain enamel colors or satin chrome. Zero clearance approved by Underwriters' Laboratories, Inc. See how easy they build in . . .

ALSO EXCLUSIVE FOLD-BACK SURFACE UNITS that install in two simple steps: wire-in, screw-in for extra convenience, extra counter space.

save you time and money...

UNDER-COUNTER DISHWASHERS fit flush — front, top and sides with standard kitchen cabinets, require only 34 1/4" under-counter clearance, 24" depth. Pressure discharge drain permits flexibility in meeting existing drain conditions (plumbing to nearby sink or disposer). Comes in 4 porcelain enamel colors, or all white. Also available in cabinet style or Dishwasher-Sink Combination or Portable model. One-two-three installation . . .

"BUILD-IN" REFRIGERATORS, TOO!
Frigidaire "Sheer Look" Refrigerators fit square in wall alcoves or standard cabinetry . . . just Plug-in, Push-in, for that BUILT-IN look!

STEP ONE Rough in utilities.
STEP TWO Push into place and connect.
STEP THREE, Attach bottom panel.

IN '57 GO FRIGIDAIRE
DIVISION OF GENERAL MOTORS CORPORATION
DAYTON 1, OHIO
MORE STYLES—BIGGEST LINE

Never before so much that is appealing and saleable to choose from. Triple-H Kitchens embrace three complete and distinctive lines, two style motifs. In Shadow-Line styling, you choose from the exciting new HOSPITALITY LINE, finished in Cinnamon natural, or from the luxurious HERITAGE LINE, in Cinnamon, Nutmeg or Spicebush natural. For color—(either standard or matching) — it's the beautiful HOLIDAY LINE, in Kitchen Maid's famed Flo-Line motif.

Amazing Dealer Opportunity

Because Kitchen Maid now offers the widest choice of kitchen styles, features and prices in America, dealers across the country are quickly recognizing the value of the Kitchen Maid franchise. Whether or not you are now handling kitchens, you owe it to yourself to investigate the profitable Kitchen Maid proposition NOW!

BETTER PRICING—MORE FEATURES

Pricing within the Triple-H Kitchens lines covers a terrific spread, an extremely important factor in realizing a greater potential from your market. And talk about features! Illustrated below are just a few of the more than thirty outstanding conveniences Kitchen Maid now offers.

Aluminum Drawers—Quiet, easily cleaned. Won't rust or chip, never need refinishing.

Rotating Shelves—in both base and wall cabinets. Revolve independently.

Slide-out Pot and Pan Rack—Ingenious storage for hard-to-store items.

Paper 'n Peppers Base—Two slide-away wire cradles provide easy-to-reach storage.

Exclusive Loksafe adjustable shelves. Safe, allow maximum use of cabinet capacity. Adjust easily.
Today, home buyers get what they want in a home...and they will settle for nothing short of TOP QUALITY in equipment and materials.

You can not say "TOP QUALITY" more impressively that when you say "KAUSTINE HEATING"... and no other feature has greater prospect influence.

Buyers know Kaustine Furnaces by their reputation for dependable, trouble-free, economical operation and long years of service.

Builders know them by their many exclusive assembly features that cut installation costs and by their unique, compact designs that save valuable floor space.

FOR FULL INFORMATION WRITE DEPT. AB-4
He wouldn't be guilty of leaving fingerprints!

The hands that go into these goatskin gloves belong to a skilled worker in General Electric's new Tyler, Texas plant where whole-house air conditioning equipment is built.

The reason for the goatskin gloves? Even the barely perceptible perspiration that forms on human fingers would have an adverse effect on the compressors which are the heart of General Electric central system air conditioning. In any necessary handling before the compressor is factory-sealed for protection, goatskin gloves are worn.

This is an extra step we take — one of the many ways we safeguard the quality of our products. And this quality control, standard practice at Tyler, Texas, is far-reaching in its effects. Whether you equip a single home or an entire project with General Electric Home Heating and Cooling systems, you can be assured of the homeowner satisfaction on which your success as a builder depends. General Electric Home Heating and Cooling Dept., Tyler, Texas.

Progress Is Our Most Important Product

GENERAL ELECTRIC
HOW TO PUT
52 weeks of Springtime
IN EVERY HOUSE YOU SELL

It's Springtime with Webster Baseboard Heating
and Warren Webster Cool Air System . . .

The summer half of an all-year comfort team is the Warren Webster Cool Air System. It's an easy, inexpensive installation . . . providing two tons of cooling capacity. Hermetically sealed air-cooled refrigeration cycle with glass fiber supply and return ducts. Used in combination with Tru-Perimeter Forced Hot Water Webster Baseboard Heating. Send for Bulletin B-2010.

It's Springtime with
Webster Heating-Cooling Conditioners . . .

Cabinet-contained Webster Heating-Cooling Conditioners team hot water heating with chilled water cooling in a single central system, without ductwork or window obstruction. Units are compact . . . quiet . . . small . . . moderate in cost. Provide flexible, easy, automatic control — room by room. In two sizes and three enclosure arrangements. Ask for Bulletin B-2001.


Webster's Finest Product . . . the Warren Webster Man

WARREN WEBSTER
HEATING . . . COOLING

APRIL 1957
AIR CONDITIONING

Brochure on gas-operated air conditioning equipment includes residential “All-Year” conditioners, evaporative water coolers and 25-ton water chillers.—Servel Inc., Air Conditioning Division.

Circle No. D33 on reply card Section G

AIR CONDITIONERS

This brochure covers firm’s line of 2, 3, 5, and 10 H.P. air conditioning units. Also covered is new heat pump. Includes photos, specifications and installation drawings.—General Air Conditioning Corp.

Circle No. D34 on reply card Section G

WIRING AND LIGHTING

Available booklets include “Plugmold Electricioned Baseboard,” on combination multi-outlet system, wiring raceway and steel baseboard; and fluorescent lighting fixtures.—Wiremold Co.

Circle No. D25 on reply card Section G

LIGHTING CONTROLS

“Luxtrol” controls—which select degrees of brightness—are covered in 12-page color booklet. Includes wiring instructions, technical data.—Superior Electric Co.

Circle No. D26 on reply card Section G

LIGHTING FIXTURES

New literature features modern fixtures—adjustable, pull-down types and a broad range of styles are included.—Markel Electric Products, Inc.

Circle No. D27 on reply card Section G

MUSIC-INTERCOM SYSTEMS

Data on full line of “Musi-Kom” systems is contained in firm’s new catalog. Includes installation guides, feature descriptions.—Home Music Systems, Inc.

Circle No. D28 on reply card Section G

LIGHTING FIXTURES

New 12-page color brochure covers ceiling and wall fixtures, post lighting and repressed box lights; also shows firm’s new line of wooden fixtures.—Globe Lighting Products, Inc.

Circle No. D29 on reply card Section G

WIRING DEVICES

Catalog 56 gives complete listing of electrical wiring devices for industrial, commercial and residential use. Each item is fully described, with general dimensions, material, color and variations available.—Leviton Mfg. Co., Inc.

Circle No. D30 on reply card Section G

You’ll find
Who Makes It
in the
YELLOW-PAGES
General Motors Delco
Year 'Round Air Conditioning for Every Type of Home Installation

Offer your home buyers the convenience, health, and comfort of year-round air conditioning with an integrated system developed and backed by General Motors. New heating and cooling models for basement, crawlspace, closet and attic installation are easily installed. Increase your sales with a nationally-advertised, prestige-building General Motors product.

GM Delco Home Selling Program for Builders

helps you sell more homes faster, at more profit! Local newspaper advertising ... model home display kits ... engineering and layout service ... all at no cost to you!

SEND THE COUPON FOR FULL DETAILS!

DELCO APPLIANCE DIVISION, Dept. AB
GENERAL MOTORS CORPORATION
Rochester 1, New York

Please have your local Delco Heating-Cooling factory sales representative give me complete information on General Motors Delco year-round air conditioning and the GM Delco Home Selling Program.

Name: ........................................................................

Address: ....................................................................

City: ......................................................................... State: ..................................
Carlton’s New Stainless Steel Vegi-Prep Sink

There’s a world of difference in stainless steel sinks, as you will quickly discover when you inspect Carlton’s gleaming, new Vegi-Prep Design. The deep compartment takes care of the usual sink chores, while the shallow compartment, under which any housewife can tuck her knees so comfortably, is just right for preparing fresh fruits and vegetables for freezer or table.

See how Carlton’s careful engineering makes sink chores almost fun. The narrower wall between bowls that reduces splash . . . the sound-deadening undercoating that hushes dishwashing clatter; transforms garbage disposer noise from a growl to a purr! And, of course, there is no enamel to chip or crack; no chance of food stains or rust. A quick whisk of a dish cloth and a Carlton Stainless Steel Sink is restored to its everlasting beauty.

Write for Catalog No. 175 and the name of your nearest Carlton Distributor. Address SINK DIVISION, Carrollton Manufacturing Company, Carrollton, Ohio.

Always the bright spot in any kitchen - costs not a penny more!
Star of the Shows!  
American Kitchens' sensational new

WOODHUES

NEW! THE "WOODHUES" HONEYWOOD KITCHEN—American Kitchens now offers two great house-selling combinations! A beautiful blend of new Bermuda Beige lifetime finish on durable steel frame, with wall and base cabinet doors in harmonizing Honeywood (shown above) on Cinnamonwood.

And now "WOODHUES" are available to builders at a surprisingly modest price!

Most exciting home-selling salesmen since American Kitchens' famous "Pioneer"! Priced surprisingly low for a product so fine! That's what builders everywhere are saying about these fabulous new "Woodhues," and no wonder!

Created to help you sell more homes faster, "Woodhues" are an eye-pleasing combination of Bermuda Beige lifetime finish on steel, with harmonizing Honeywood or Cinnamonwood doors, a full ¾" thick on both wall and base cabinets! Countertops in nine fashionable new Formica colors. And no mix-or-match color problems with "Woodhues"!

Especially easy to install, "Woodhues" add remarkably little to your costs. Plenty of sensational new features, too. Exclusive adjustable sliding drawer shelves in all base cabinets! Exclusive new convertible chrome faucets! Versatile drop-in sink cabinets in 30" and 36" widths!

Check the many advantages that new "Woodhues" can give you now! Get the edge in today's competitive market with "Woodhues" and its powerful built-in salesmanship. American Kitchens are also available in "Pioneer" of birch, copper and steel, and ever-popular White. Mail the coupon today!

---

SELL MORE HOMES FASTER!

American Kitchens, Dept. AB-657
Connersville, Indiana

[] I'd like to have "no obligation" quotation on my next kitchen.

[] Please send me your new Architects' and Builders' File.

Name: ____________________________

Address: __________________________

City: ___________________ Zone: ___ State: ___
Birchwood Park kitchen features Textolite postformed counters and "Mix-or-Match" color styling. Fabricators: Formed Laminates, Inc.

Textolite® postformed counters strong sales feature in 2,600-home project!

General Electric postformed counters eliminate dirt-catching seams; add functional design and beauty.

Mr. Morris Sosnow, builder of mammoth Birchwood Park in Jericho, New York, knows that the sale of a home can be decided in the kitchen. That's why he specified Textolite postformed surfacing on kitchen counters in all his homes.

Priced at $19,990 to $30,000, over 800 homes have already been completed and sold. No wonder that, today, in Nassau and Suffolk Counties, so many jobs specify postformed counters.

General Electric Textolite postformed surfacing eliminates dirt-catching corners; its no-drip lip edge keeps liquids off the floor. The surfacing resists stains and scratches; cleans with a swish. And, with over 80 attractive patterns and colors, Textolite offers the extra advantage of "Mix-or-Match" color styling.

Check your Yellow Pages under "Plastics" for the Textolite fabricator nearest you. Specify Textolite surfacing . . . it sells!

GET ON OUR "NEW-IDEA MAILING LIST"!
General Electric Co., Dept AB-4-7
P. O. Box 5911, Cleveland 1, Ohio

Please send me your new 1957 Pattern Folder, and add my name to your "New-Ideas Mailing List.”

NAME

TITLE

FIRM

CITY

ZONE

STATE
now, adding Cooling

to Williamson Heating
is as easy as installing
a telephone!

Yes, you can consider that important "Year-round Air Conditioning" decision and your home is completed and your buyer decides whether he wants cooling added to his heating equipment immediately or not. Simply install a WILLIAMSON Warm Air Furnace with a cooling coil enclosure—the latter at practically no extra cost. When the buyer decides on cooling it can be added almost as simply as adding a telephone.

Remember, Williamson has a size and a type of central cooling unit and furnace to fit any size home you are building. No water required—no costly plumbing.

See our 12 page insert in SWEET'S Light Construction File.

WILLIAMSON

THE WILLIAMSON COMPANY
3330-1-4 Madison Road, Cincinnati 9, Ohio

Send me further information on WILLIAMSON'S Plan for adding Summer Cooling.

Builder
Name

Address

City Zone State
The Gerber Bermuda bathroom features full size steel tub with bath and shower trim, pop-up drain. Lavatory is 20'' x 18'', has concealed front overflow, centeret faucet with aerator and pop-up. Closet is reverse trap.

The Catalina bathroom features full size steel tub with over-the-rim tub filler, connected waste and overflow. Lavatory is 19'' x 17'', has concealed front overflow, centeret mixing faucets. Closet is close-coupled washdown type.

For more bathroom appeal...

These two Gerber bathrooms cost little more than one of other makes

You can build more bathroom appeal into your homes with Gerber plumbing fixtures, at no extra cost. Gerber offers the most wanted bathroom features, so sensibly priced you can install colored fixtures instead of white, 2 lavatories instead of one, a full size tub instead of a "miniature." Deluxe features such as reverse trap closets cost no more than most washdown models, and modern Gerber pop-up drains cost no more than most chain and plug styles.

Gerber has five large, modern plants making a complete line of high quality plumbing fixtures, all moderately priced to give you full value for your plumbing dollar. They are easy to install and service and have smart, modern "harmonized styling."

Over a quarter of a century of experience supplying the building industry assures efficient handling of your order and "on time" delivery to your job site. All fixtures, including complete "packaged" bathrooms, are available from any of our 5 plants. Your Gerber representative is prepared to give you valuable job site service that cuts installation time.
INTERCOMMUNICATION SYSTEM
Features of built-in-wall combination radio and intercom are described in new leaflet. Contains specifications, installation information.—Flush Wall Radio Co.
Circle No. D31 on reply card Section G

TELEVISION OUTLETS
Firm's specialized line of TV wall sockets, wiring materials, rough-in parts and other accessories are listed in this brochure. Included are prices and catalog references.—Mosley Electronics, Inc.
Circle No. D32 on reply card Section G

KITCHEN VENTILATORS
This booklet features range hoods and bathroom, wall and ceiling ventilating fans. Gives specifications and accessories.—NuTone, Inc.
Circle No. D33 on reply card Section G

FOLDING COOKING UNITS
Color leaflet shows cooking units that fold up when not in use to free counter space. Contains installations suggestions.—Frigidaire Division, General Motors Corp.
Circle No. D34 on reply card Section G

REFRIGERATORS
Built-in refrigerators and home freezers are described in this brochure. Gives full installation dimensions and illustrations showing various methods of placement in walls or cabinets.—Amana Refrigeration, Inc.
Circle No. D35 on reply card Section G

STAINLESS STEEL SINKS
Literature illustrates and gives dimensions and specifications on complete line of stainless steel sinks.—Carrolton Mfg. Co.
Circle No. D36 on reply card Section G

RANGES & OVENS
New brochures provide descriptive material on firm's built-in ranges and ovens. All types of gas or electric models are shown as well as the micro-wave-cooking electronic range.—Tappan Stove Co.
Circle No. D37 on reply card Section G

KITCHEN CABINETS
New lines in Honeywood and Cinnamonwood are illustrated in attractive folder. Includes special features such as "drop-in" range and sink units. American Kitchens Division, Avco Mfg. Corp.
Circle No. D38 on reply card Section G

BUILT-IN COOKING UNITS
Attractive color folder shows model layouts of electric wall ranges and built-in cooking tops. Includes units' features, installation instructions.—Admiral Corp.
Circle No. D40 on reply card Section G
- Two Full Lines
- Compact Size
- Modern Design
- New Eye-Appeal
- Gas or Oil
- High Efficiency
- For Any System
- Quiet Burners
- Thrifty Operation
- Silent Gas Valves
- Factory Assembled
- Easy To Install
- 10 Year Guarantee
- Matching Summer Air Conditioners

DELUXE FURNACES

For every home heating preference or need, there's an ideal Majestic furnace. In the Deluxe line of Majestic winter air conditioners, you find a choice of models for homes of every size and for every type of forced-air heating system.

Units are available in three sizes and in upflow, downflow, or horizontal flow design, and for either gas or oil fuel. These are quality furnaces, built with all the experience of Majestic's half-century of dedication to home comfort, but priced for economy in both the initial cost and in installation.

A full line of larger furnaces is also available, as well as matching summer air conditioners for year-round comfort.

Majestic

HEATING and AIR CONDITIONING

Imperial Furnaces

Here are furnaces of exceptional beauty and quality construction, designed for those who want the best in winter air conditioning. A few of their outstanding features include: handsome vestibule front in modern design; "Quiet-Cote" undercoating of the casing (like the undercoating on your car) for rust-free service life and soundproofing; new quiet burners and controls of the latest design.

As in all Majestic furnaces, including the Deluxe line, the unique and efficient heat exchanger is guaranteed a full ten years.

System-matching air conditioners are available with these furnaces, in either completely self-contained water cooled units or remote air cooled models, with blower-equipped matching casings or with evaporator cabinets that utilize the furnace blower and filters.

Write for Complete Details

The Majestic Co., Inc.
433 Erie St., Huntington, Indiana
The new FIAT Monterey shower floor has a PreCast integral threshold and curb that completely eliminates the most expensive steps in shower construction: the built-on-the-job floor, threshold and pilasters. Glass filler panels at the jamb replace the pilasters, rest directly upon the curb of the Monterey. The FIAT PreCast Shower Floor simply slides into place—there's no need for sub-pan, mortar, tiling and hours of costly labor. Try this new shower technique that saves you money and produces added sales appeal.

The Monterey shower floor, PreCast of sparkling terrazzo, is permanently leakproof and furnished as a complete unit with solid brass drain and stainless steel strainer plate. There is nothing else to buy—nothing else to install! The photograph shows an excellent and economical shower combining the Monterey floor with a glass filler panel and door forming the front. Either hinged or sliding doors, by others, may be used as the solid threshold provides a convenient foundation for the track.

FIAT METAL MANUFACTURING CO.
Since 1922...First in Showers / Packaged Showers * Doors * Floors / Toilet Room Partitions

FOUR COMPLETE PLANTS: Long Island City 1, N. Y.; Franklin Park, Ill.; Los Angeles 63, Calif.; Oshawa, Ontario, Canada
Give your Model Homes an extra selling feature with Diehl Attic Ventilators. A plus-value, appealing to both husbands and wives—and giving you more profit per dollar on every home. Development or Custom built—your Model Homes will bring in more buyers with nationally promoted, Diehl time-tested ventilation.

For more profit with these cost-saving features:
- Economical to install, as standard, during framing or wiring.
- No ducting, no excessive labor or extra material costs.
- Simple to show home buyers impressive air movement—at any time.
- No call-backs. Diehl's 69 years of fan making know-how, plus 5-year guarantee, backs reputation.

Your buyers will appreciate that Diehl ventilated homes give them healthier, summer living with low costs. Diehl Attic Ventilators in three different models—ranging from 24 to 48 inches diameter—provide a type and size for every home—and all builders.

Mail in coupon for the full story.

DIEHL MANUFACTURING COMPANY
Electrical Division of THE SINGER MANUFACTURING COMPANY
Makers of the World-famous SINGER SEWING MACHINES
Finderne Plant, SOMERVILLE, NEW JERSEY

Mail in coupon for the full story.

Hydroguard, the thermostatic tub and shower control, will help you make your home excitingly different... faster selling! Test the selling power of Hydroguard in your prototype model. Get full details by writing to us at the address below.

The Powers Hydroguard is a thermostatic tub and shower control that holds water temperature constant—prevents sudden shots of hot or icy water, regardless of change in the temperature or pressure of the water supply.

Across the nation, home seekers have seen the Hydroguard in model homes sponsored by national shelter magazines, trend-setting architects, and leading home builders. You can cash in on the trend to Hydroguard—write us now for full details.

THE POWERS REGULATOR COMPANY,
Skokie 19, Illinois Dept. 457.
ELECTRIC BASEBOARD RADIATION
Automatic Central Electric Heating
No Boiler! No Chimney! No Pipes!

RUGGED CONSTRUCTION
VULCAN ELECTRIC TRIMLINE resistance heating elements are made of Nichrome wire coils embedded in high grade ceramic insulators and housed in Vulcan's famous fin-tube radiation. The entire element is completely contained in Vulcan's baseboard enclosure, made of heavy gage steel.

LOW COST INSTALLATION
Now you can cut your automatic, central heating system cost to the bone! ELECTRIC TRIMLINE costs far less to buy — costs less to install. Eliminates boiler, tank, chimney and pipes. Packaged as a complete unit, ready for easy, quick installation.

And it's a powerful sales feature!

Write Today for FREE Bulletin

The VULCAN Radiator Company
775 Capitol Avenue
Hartford 6, Conn.

ORIGINATORS OF FIN-TUBE AND BASEBOARD RADIATION IN AMERICA

APRIL 1957
FOR HOME-SALES APPEAL!

ANOROC
your one complete source for
BATHTUB ENCLOSURES
STALL SHOWER DOORS
CORNER ENCLOSURES

Now...in Colors!


ANOROC adds "custom workmanship" to mass production for higher quality and value—at a far lower price. More builders and home buyers insist on ANOROC.

Many Sizes In Stock
Send for FREE catalog!

The Market Place for buying and selling used merchandise, help wanted, positions wanted, and other classified listings.

Rates—$7.50 minimum for 40 words or less. 15¢ for each additional word.

Display Classified—$3.50 per inch. Reverse plates not accepted. No illustrations. No agency commission or cash discount. One column only. Multiple signatures allowed.

BUSINESS SERVICES
DOUBLE YOUR INCOME from your newspaper advertising by using our Low Cost cartoons on Home Improvements and Building. We have series of 52 cartoons for Retail Dealers, Contractors, Roofers, Plumbers, Painters, Real Estate, Etc. Mated in One color. Two column sizes to fit advertising from three inches up. We are Advertising Cartoon Specialists, with over 500 clients, and know what produces results. You get exclusive city franchise with Money Back Guarantee. For FREE proofs and details write DAVID LILLY CARTOONS, Box 167, Long Beach 1, Calif.
INSIDE PAINTING
An exclusive. All doors and drawer fronts painted inside as well as outside.

ROLLER DRAWER ACTION
Nylon rollers on slide and drawer combine to produce finger-touch drawer action.

PLASTISOL SHELVES
Open view, heavy wire shelf coated with plastisol protects dishes and glassware.

SUS)
the quality kitchen
for the quality house

Women recognize the fine quality of a GENEVA "Whisper quiet" kitchen... that's why your houses will sell faster, at a higher profit when you feature GENEVA. And more... GENEVA offers the most extensive line of standard cabinet sizes, permitting custom tailoring a GENEVA kitchen to any room dimensions... with important savings in man hours on installation.

Learn how you can offer GENEVA... the finest quality steel kitchen at a price to fit your budget. In white, a choice of six attractive colors, or honey maple wood fronts.

Save man hours on installation...
Custom tailor to any room dimension
NEW, COMPLETE CATALOG FOR AMERICAN BUILDERS!
(76 Pages of Useful Information)

Here's the most complete pump and accessory catalog published! It covers practically every type of pump and water system for the light construction industry. Included are the latest additions to the Deming line:
- The Deming "75" Convertible Jet sizes are increased to include 1/4 and 1 H.P.
- The Deming Multi-stage Jet sizes now go as high as 5 H.P. - 5 stages.
- Additional sizes of Deming Submersible Pumps have been added to the line.
- Deming "MINUTURB" deep well pumps are now available in larger capacities.

The new Deming Catalog C-57 is ready to go to work for you. It's FREE! Send for it NOW!

DEMING
PUMPS AND WATER SYSTEMS

THE DEMING COMPANY • 563 Broadway, Salem, Ohio
□ Please rush FREE copy of your new Catalog C-57.
□ Advise names and locations of nearest Deming Distributors.

My Name__________________________
Firm_____________________________________
Address____________________________________
City______________________________________
Zone_______ State____

(PLEASE PRINT)
CABINETS

BEAUTIFUL BIRCH

SERIES "U"

Standard Units to fit any arrangement for efficient storage and work space.

SERIES "LD"

SPECIFICATIONS

DOORS—1 1/4" thick, 5 ply, solid flush construction. Softwood core cross-banded and face veneered with select light colored Birch. Lipped edges.

DRAWERS—Dovetailed corners. Fronts face veneered and lipped to match doors. Hardware center guides.

FRONT FRAMES—Narrow lines, 1/4" thick Birch. Mortise and tenon joints, glued. Holes for nailing pre-drilled.

ENDS—1/4" solid softwood, dadoed for bottom, drawer supports, tilting strips. Drilled for shelf pins.

SHELVES—1/4" glued softwood, adjustable.

BACKS—Furnished on all units.

TOE SPACE—Built in, 4" high, 3" deep.

HARDWARE—includes pulls, hinges, door catches, shelf pins. Pulls, hinges available in 4 finishes.

NAILS AND SCREWS—All required furnished with each unit, including long screws for hanging upper units and "T" bolts for joining assembled units.

Units individually carton packed with complete instructions.

UPPER UNITS—

Series "U"—13" Deep

OVER REFRIGERATOR—OVER RANGE

16" high, no shelves — 22" high, one shelf

Two Doors — 24, 27, 30, 33, 36, 39-inch widths

Three Doors — 42, 45, 48-inch widths

WALL UNITS

32" high, two shelves — 45" high, three shelves

One Door — 12, 15, 18, 21-inch widths

Two Doors — 24, 27, 30, 33, 36, 39-inch widths

Three Doors — 42, 45, 48-inch widths

LOWER UNITS—

34½" high, 24¾" deep

Series "LP"—one shelf

One Door — 9, 12, 15, 18, 21-inch widths

Two Doors — 24, 27, 30, 33, 36, 39-inch widths

Three Doors — 42, 45, 48-inch widths

Series "LD"—All Drawers

Three Drawers — 15, 18-inch widths

Four Drawers — 21, 24, 30, 36-inch widths

Write, wire, or call for complete catalog, prices . . . and name of your nearest QUALITYBILT distributor.

FARLEY & LOETSCHER

Manufacturing Company • DUBUQUE, IOWA

ENTRANCES • DOORS • FRAMES • SASH • BLINDS • CASEMENTS • SLIDING DOORS • SCREENS • COMBINATION DOORS

STORM SASH • GARAGE DOORS • MOULDINGS • INTERIOR TRIM • SASH UNITS • LOUVERS

KITCHEN CABINET UNITS • CABINET WORK • STAIRWORK • DISAPPEARING STAIRS • "FARLITE" LAMINATED PLASTICS
The Hotpoint Line is the Builder’s Line of Appliances—offering you perfect combinations for homes in every price bracket!

- The widest variety of Built-In Models and Features—3 Ovens, 7 Surface Cooking Units, 3 Refrigerators, 1 Freezer, 3 Modular Kitchens.
- The Hotpoint Line of O Ranges offers the right model for every home—plus an Electronic Cooking Center.
Women are different—and each one knows exactly what she wants in the kitchen of her new home.

Differing preferences and pocketbooks are no problem to the builder who uses Hotpoint. As a matter of fact, they're an advantage because he can give people just what they want—at the price they can afford.

There's a logical reason—the Hotpoint Line is the broadest and most versatile line of kitchen appliances in the world today.

If cost is important to one couple, you can meet any price competition with Hotpoint budget models—the finest dollar-for-dollar values in the low-price range.

If the next couple wants the most advanced features and beauty in styling, you can offer them Hotpoint de luxe models, the finest in America.

To capitalize on the home-selling opportunities—and “selling up” profits—many builders now install two model kitchens. One features Hotpoint budget appliances, and one features Hotpoint de luxe appliances. Home buyers make their choice—and almost invariably they choose the added features of Hotpoint de luxe models. And that means added profit for you.

Contact your Hotpoint Distributor's Builder Specialist today—and he'll prove to you with facts and figures why Hotpoint offers you maximum profit opportunities!

**Hotpoint**

(A Division of General Electric Company)

5600 West Taylor Street, Chicago 44, Illinois
Builders know how important economy is in today's tighter market. This doesn't necessarily mean "cutting corners" to sacrifice quality, but requires getting the most value for every dollar. To fulfill this requirement, Niagara has especially designed for builders a gas-fired furnace where "budget heating" is needed.

This compact heating unit has an efficient gas burner and heat exchanger that will provide plenty of heat with low gas bills. Available either as a forced-air furnace, Model 100S-AC, or as a gravity furnace, Model 95S-G, this all-new Niagara Builders Special combines economy and efficiency. The Niagara line also includes completely automatic gas or oil furnaces, with or without refrigerated air conditioning, to fit every home requirement.

For complete information, write direct or contact your Niagara heating contractor.

**Niagara Furnace Division**

The Forest City Foundries Co.

2500 West 27th Street • Cleveland 13, Ohio
Super-Thin drop-in unit

The Modern Maid Super-Thin four-unit electric cooking top drops easily into a single top cut-out. It is completely installed in a matter of minutes with no undercounter work necessary. Being a scant three inches deep, it fits into a standard 30" cabinet without disturbing the drawer space (no dummy front panel). Reduce your labor costs, increase customer satisfaction with Modern Maid built-ins.

*with Thermal-Eye*

With the new Thermal-Eye surface unit, the housewife can dial the proper temperature for frying, boiling or warming and Thermal-Eye automatically, maintains the right temperature.

One source for gas or electric

Two-burner, four-burner top • Choice of ovens
Stainless Steel or Coppertone Porcelain

TENNESSEE
STOVE WORKS
CHATTANOOGA, TENNESSEE

| Tennessee Stove Works, Dept. AB |
| Chattanooga, Tennessee |
| Please send brochure giving complete information on Modern Maid built-ins. |

Name: ____________________________
Address: ____________________________
City: ____________________________ State: __________
ARCHITECT [ ] BUILDER [ ] DEALER [ ] DISTRIBUTOR [ ]
Are your plans really complete?

When you complete the planning for the homes you'll build this season have you included 'built-in' fans? ... Chelsea attic and kitchen fans are inexpensive, easy to install — add that extra touch of luxury that will sway hard-to-please buyers in your favor ... adequate home cooling and ventilation is a "sales must" today!

'Floating Action' Attic Fans...

Can be installed in minutes while your homes are under construction. Sizes and models for every type of architecture in every price range ... Give a tremendous sales advantage when competition is tough and sales depend upon the 'extras' you can offer!

Kitchen Range Hoods

With the emphasis on attractive kitchens Chelsea range hoods add the 'extra' that helps sell the entire home. Inexpensive and easy to install in a few minutes.

Kitchen Fans ...

The symbol of luxury construction to most buyers yet priced so modestly that you can install them anywhere.

CHELSEA FAN & BLOWER CO. INC., Plainfield, N. J. No. 59-22

AMERICAN BUILDER Reference File

KITCHEN CABINETS

Natural wood kitchen cabinets are attractively illustrated in this brochure. Also gives specifications and sizes available with a line of cabinet accessories.—International Paper Co., Long-Bell Div.

Circle No. D48 on reply card Section G

KITCHEN APPLIANCES

New literature features two of company's products: food waste disposers and under-counter installed dishwashers. Specifications, rough-in plumbing dimensions included.—In-Sink-Erator Mfg. Co.

Circle No. D49 on reply card Section G

KITCHEN CABINETS

Here is a 6-page catalog showing firm's line of kitchen cabinets and accessories. Also includes sketches of cabinets as they will appear in actual rooms. Gives dimensions of all models.—Kitchen Kompact, Inc.

Circle No. D50 on reply card Section G

KITCHEN CABINETS

New Triple-H Kitchens is the brochure offered which describes the features, finishes and construction of this line of cabinets.—Kitchen Maid Corp.

Circle No. D51 on reply card Section G

KITCHEN CABINETS

This brochure describes the new designs and size ranges of this firm's line of modern kitchen cabinets. Available in birch or Philippine mahogany "contour styling" is featured.—Morgan Co.

Circle No. D52 on reply card Section G

REFRIGERATOR - FREEZER

Booklet describes new 23 cubic foot built-in combination unit and points out features. Pictures several model installations, gives technical data.—Manitowoc Equipment Works.

Circle No. D53 on reply card Section G

BUILT-IN RANGES & OVENS

Interchangeable units in either gas or electric are featured in this brochure on built-in ranges and ovens. Gives complete specifications and rough-in dimensions for all units.—Oakland Foundry Co.

Circle No. D54 on reply card Section G
BE THE FIRST TO OFFER A
HEAVY-DUTY POWER SOURCE
that operates 5 electric housewares at one time...

New Westinghouse Automatic
APPLIANCE CENTER!

Another Westinghouse Built-in and what a feature to promote to your prospects! Now, 3, 4, or 5 appliances can all plug in without blowing fuses. Clock and Timer give automatic on-off control. Two outlets and three Hide-away cords with cord reels connect to appliances.

This Automatic Appliance Center installs with just one 3-wire circuit connection. It breaks into 5 appliance circuits at less cost than installing 5 separate circuits. It's compact and self-contained, perfect for a variety of locations. Mount it in a wall cabinet, under or alongside a wall cabinet.

Build-in an exclusive service feature—build up sales excitement. Specify the Automatic Appliance Center to your designer and electrical contractor.

For complete specifications and installation, see your Westinghouse distributor or mail coupon at right.

Mr. W. M. Byrne, Merchandise Manager
Electric Housewares Department A-E-4
Westinghouse Electric Corp.
Mansfield, Ohio

Please send me complete details about the Westinghouse Automatic Appliance Center, including installation data.

Name________________________

Firm________________________

Address______________________

City_______Zone______State______
...the superb bilt-in kitchen combination that adds prestige and profit

*THE NEW MASTERPIECE BILT-IN REFRIGERATOR-FREEZER*
Your prospects will appreciate the way the family-size refrigerator and freezer compartments are completely self-contained in one compact bilt-in unit. They will like the many exclusive Thermador features... and, the way this Masterpiece unit harmonizes with any kitchen decor.

*MULTIPURPOSE BILT-IN ELECTRIC DOUBLE OVEN*
From the two large automatic ovens and 3-spit rotisserie, to the air-cooled doors and electric Teleminite Timer, your prospects will enthusiastically agree there's nothing finer.

*FAMOUS MASTERPIECE BILT-IN COOKING TOP*
Only Thermador offers a choice of so many different cooking tops with exclusive features, including Vari-Speed controls, that practically take charge of the cooking.

*Choice of lifetime Stainless Steel or exciting decorator colors: Canyon Copper, Desert Pink, Daffodil Yellow, Turquoise, Sugar White.*

Put this Thermador trio to work for you... MAIL COUPON TODAY

---

**THERMADOR**
"The Originator of the Bilt-in Range"

---

**AMERICAN BUILDER Reference File**

**BUILT-IN REFRIGERATORS**
Brochure no. 569 describes 13 cu. ft. built-in refrigerator-freezer. Installation details are furnished.—Preway Inc.

Circle No. D55 on reply card Section G

**RANGES & OVENS**
Prices and full information on firm's "arANGEable" built-in gas ranges and ovens is included in this catalog. Gives dimensions and choice of colors.—Geo. D. Roper Corp.

Circle No. D56 on reply card Section G

**BUILT-IN RANGES**
Literature available on complete line of gas and electric built-in ranges and ovens. Detailed installation details are included.—Preway Inc.

Circle No. D57 on reply card Section G

**RANGES & OVENS**
This builder's brochure gives full specifications with installation dimensions and dealer prices for firm's line of gas and electric built-in ranges and ovens.—Stiglitz Corp.

Circle No. D58 on reply card Section G

**BUILT-IN COOKING UNITS**
Well-illustrated brochures shows firm's line of built-in ovens and surface cooking elements. Includes ovens in color, automatic elements.—Thermador Electrical Mfg. Co.

Circle No. D59 on reply card Section G

**FOOD FREEZER**
"Roll-Out" food freezer is shown in several installations. Leaflet covers product's features, gives specifications. General Electric Co.

Circle No. D60 on reply card Section G

**KITCHEN CABINETS**
This 4-color brochure describes firm's "Customized" kitchens which are available in wood or plastic panels. Cabinets fronts may be changed at any time for decorative purposes as a large selection of decorator colors and finishes are available.—Oakland Foundry Co.

Circle No. D61 on reply card Section G
Now! All Mueller Climatrol Units
Automatically Rust-Proofed for Life

There is an important selling point for builders in the new Mueller Climatrol "Paintbond" finishing system. Used in production of all Mueller units, it assures a uniform, top-quality coat that protects against rust, assures long life and lends further sparkle to high-styled designs.

The new process is a three-stage automatic operation, including cleaning and phosphatizing prior to spray painting with distinctive Mountain Spring Green enamel. It's the finest system of its kind in the heating and cooling industry — the talk of the finishing field.

Constructed of tough heavy gage steel, Mueller Climatrol casings take years of abuse without revealing it. In addition, they're finished inside as well as out so that rust has no chance to get started.

Priced for Profits!

New Furnace Studded With Deluxe Features

Here's a gilt-edged invitation to bigger profits in your new homes or remodelling work. Mueller Climatrol Type 127-227 (gas or oil) winter air conditioner fits every requirement for a low-cost forced air unit—in basements or utility rooms, for perimeter, conventional, small pipe or other installations.

Heavy-gage, insulated steel cabinet; welded steel heat exchanger; cast iron open-port burner — all are standard. Write for complete price and specification data.

Kit Puts Selling Punch in Model Home Installations

See your Mueller Climatrol dealer for full details, or write direct to...

Mueller Climatrol
2021 W. Oklahoma Ave. Milwaukee 15, Wis.
In Canada ... 323 Kipling Ave, South, Toronto 14, Ont.

Start your heating and cooling installations selling for you! "Open House" Kit contains 20 eye-catching Day-Glo stickers pointing up key comfort features. Easily attached — just peel off backing, paste 'em on ductwork and unit.
YOU’LL BUILD IT BETTER—SELL IT SOONER—WITH

Manitowoc

2-zone®

...world's only family-size
built-in refrigerator-freezer

Compactness for small home planning, bountiful living for your luxury homes, and the only truly full-size capacity combination for modern families. A 10 cubic foot refrigerator featuring Cold-Flo to dissipate frost before it forms — and 13 cubic foot, 455 pound capacity freezer with superfrost, supercold freezing anywhere in compartment. Highly adaptable, left or right doors, smart new squared-up styling, choice of beautiful finishes: antique copper, stainless steel, and white.

You really make it a dream kitchen — delight the housewife, who makes or directs those big home-buying decisions — with a 1957 Manitowoc built-in 2-Zone.

No installation more simple than this

Manitowoc built-in 2-Zone is a completely equipped package — all ready to slide into basic built-in space.

Single compressor is part of the unit — mounted in place, ready for superbly efficient operation.

Bigger by 10-cubic-foot average than any other similar unit — but requires little more space, if any. Only 36" wide, normal cabinet depth.

Plan the kitchen that sells the house — with the biggest and best that modern families need — Manitowoc's built-in 2-Zone.

Mail the coupon today for complete details on features and specifications of the new Manitowoc built-in 2-Zone.

KITCHEN CABINET ACCESSORIES

This folder illustrates the use and installation of spice shelves, pop-up refuse containers, sliding cup shelves, package shelves, and many other accessories for the kitchen. —Washington Steel Products, Inc.

Circle No. D62 on reply card Section G

KITCHEN CABINETS

This 16-page catalog, printed in color, gives specifications, installation details and sizes of complete line of metal cabinets. —Youngstown Kitchens.

Circle No. D63 on reply card Section G

RANGES & OVENS

This brochure on built-in gas ranges and ovens gives attractive illustrations of the sales features as well as installation details. —Gaffers & Sattler Div., Utility Appliance Corp.

Circle No. D64 on reply card Section G

WATER PUMPS

Complete line of pumps and water systems is illustrated and described in firm's commercial catalog. Includes charts and other helpful information; advertising suggestions. —Deming Co.

Circle No. D65 on reply card Section G

INCINERATORS

Construction details and dimensions on four incinerator types—flue fed, direct-fed, prefabricated and garden—are given in this handy 1|2-page booklet.—Donley Bros. Co.

Circle No. D66 on reply card Section G

BATHROOM IDEAS

A completely new bathroom idea book. Illustrates beautiful and practical bathrooms in full color with floor plans. Colors schemes—scores of ideas by a leading designer. —Universal Rundle Corp.

Circle No. D67 on reply card Section G

BATHROOM FIXTURES

Attractively illustrated with bathroom planning and decorating ideas this book describes the features and colors of firm's line of plumbing fixtures. —Gerber Plumbing Fixtures Corp.

Circle No. D68 on reply card Section G
COSTS LESS TO INSTALL

DIMENSIONED FOR POPULAR CABINETS

1. 24" oe 23%

RQ BUILT-IN GAS RANGES

...Cut Installation Costs...

...INSURE MORE CLEAR PROFIT

Sized to fit standard 24" cabinets, Roper Built-Ins need no costly, time-wasting alterations. They cut crew time, give more clear profit. For faster, easier sales, feature them in your houses. Send for details today.

★ Smartly styled ... choice of colors
★ Built to highest Roper standards
★ Feature-packed ... Value-priced

Today's Hottest Feature!

ROPER

Tem-Trol

AUTOMATIC TOP BURNER HEAT CONTROL

Women love it ... sales prove it! Roper "Tem-Trol" controls cooking heat, makes any ordinary utensil automatic. A Roper exclusive.

GEO. D. ROPER CORPORATION
Rockford, Illinois

Prices on Request

Geo. D. Roper Corporation
Rockford, Illinois
Send me prices and full information about Roper "arRANGEable" Built-In Gas Ranges.

Firm Name_____________
Individual_____________
Address______________
City______________ State__________
I am a _______ (type of business)
My Building Material Supplier is_______(name)
(Acity)______________

APRIL 1957

D95
New F & W Pump Gives
40-70% More Water at Less Cost!

Whatever your customers' requirements, there's an F & W Water Pump to meet them exactly. All offer outstanding advantages in long-life, dependable service, low-cost operation, and minimum maintenance. Shown here are just 3 of the scores of models in the complete F & W line. The VARIJET (above) delivers 40 to 70% more water, yet reduces motor load and power consumption thanks to F & W's exclusive, patented ejector. No other pump approaches its performance for shallow well operation at normal capacities and pressures. All F & W pumps are individually tested before shipment. So . . . remember . . .

F & W Means Flowing Water by
FLINT & WALLING MANUFACTURING CO., INC.
466 Oak Street, Kendallville, Indiana

PLUMBING FIXTURES
Complete line catalog on "Beautyware" gives specification data and rough-in dimensions for the entire line of bathroom fixtures as well as kitchen sinks which includes cabinet and in-counter types.—Briggs Mfg. Co.

Circle No. D69 on reply card Section G

BATHTUB PROTECTION
Literature describes three types of protective coatings—a pre-cut corrugated box-board, a vinyl plastic flexible film, and a gummed back kraft paper.—Protectub, Inc.

Circle No. D70 on reply card Section G

SHOWER RECEPITORS
Literature describes complete line of packaged showers, precast shower floors and bath enclosures for all shower requirements.—Fiat Metal Mfg. Co.

Circle No. D71 on reply card Section G

You always get more from Swanson. Low cost, easy installation, factory wired, wide range of finishes, choice of powerful twin blower or blade type vent fans. AND—new push button switches. Whatever it is you want in hoods—Swanson will deliver the goods.

Leviton Manufacturing Co., Brooklyn 22, N. Y.
Chicago — Los Angeles — Canada
A "MUST" FOR EVERY MODEL HOME!
SHOW MORE and SELL MORE with AMERICA'S FAVORITE...

TALK-A-RADIO

NO HOME IS "REALLY MODERN" WITHOUT A BUILT-IN TALK-A-RADIO
RADIO-MUSIC-INTERCOM
This exciting new Talk-A-Radio has everything—all of the finest electronic luxuries of radio, combined with music and room-to-room intercom. It's the SAFE, CONVENIENT way to answer the door, "sit" with the baby, monitor any room in the house, and save a "million steps a day".

LOADED WITH EXTRAS!
Complete selectivity of rooms is yours with Talk-A-Radio. Calls may be originated or answered from any room, without pre-setting the master unit. The person answering an intercom call does not have to move to the speaker-mike to communicate...all switching is done by caller. Automatic timer turns radio on or off...even operates an appliance, automatically!

THE BUILDER'S FAVORITE
...and most effective
Selling Tool!
TALK-A-RADIO

- Builders everywhere acclaim Talk-A-Radio's "selling power" in attracting customers and closing sales!
- Complete Radio and Room-to-Room Intercom for SIX or more rooms...with appliance outlet and phone-jack.
- Low in Cost! Easy to Install!
- Available in 14 Decorator Colors!
Model 1008-U, U. L. approved, RCA licensed.

TALK-A-RADIO MFG. CORP.
5641 DYER ST. DALLAS, TEXAS

AMERICAN BUILDER Reference File

PLUMBING FIXTURES
This new 40-page catalog shows in detail many new items in the Eljer line, including modern design brass fittings. Also shows roughing-in measurements for most fixtures.—Eljer Co.
Circle No. D72 on reply card Section G

BATHROOM ACCESSORIES
This new catalog of bathroom accessories shows firm's line of medicine cabinets as well as towel bars, soap dishes and many other fittings. Also included are bathroom venti-lators and heaters.—Miami Cabinet Div., Philip Carey Mfg. Co.
Circle No. D73 on reply card Section G

GLASS BATH ENCLOSURES
ShoweRite catalogs presents line of glass bathtub enclosures, shower doors, shower stalls, corner tub enclosures and accessories. Fully illustrated, including color.—Theodore Efron Mfg. Co.
Circle No. D74 on reply card Section G

Your best jobs are done with

LEVITON

LEV-O-LOCK

DEVICES

PUSH-TURN — AND IT'S LEV-O-LOCKED

This modern design electrical connector locks securely with a turn of the cap, to provide a secure connection that will not shake or pull loose...assures uninterrupted flow of power. Send for complete catalog.

Leviton Manufacturing Co., Brooklyn 22, N. Y.
Chicago—Los Angeles—Canada

HUNDREDS OF BUILDERS SAY:
"VACU-FLO IS BIGGEST HIT IN BUILT-INS...PROVIDES MORE SALES POWER".

 Builders everywhere are experiencing high-level interest with Vacu-Flo installations and are providing a built-in appliance with exciting appeal to home buyers. Time after time builders have told us they fully believe Vacu-Flo was the one feature that hurried the sale. Perhaps Vacu-Flo will keep you ahead of competition too...We'll be glad to show you how prominent builders are using Vacu-Flo profitably.

$100.00 FOR YOUR MODEL HOME LOCAL ADVERTISING PROMOTION
The Vacu-Flo cooperative plan includes a useful promotion kit plus $100.00 for local advertising costs when you qualify your Vacu-Flo installation under our special model home builders offer.

H-P PRODUCTS, INC., DEPT. A, LOUISVILLE, OHIO

Please send me Vacu-Flo information and model home promotion offer.

Name
Builder's Name
Address
City Zone State

APRIL 1957 D97
Builders, Contractors like to Sell, Install these New Radio-Intercom Systems

Fanfare MUSI-TALK

Sell ... because MUSI-TALK adds to the value and sales-appeal of every house. It’s the “big extra” certain to clinch a sale. Install ... because MUSI-TALK installation kits and electronic kits may be purchased separately thus saving 3/4 on original investment. There is no warehousing problem.

- 6-Tube, trouble-free, printed circuit radio
- Direct remote-to-remote communication
- Remote stations can originate calls
- Smartly styled in brushed copper

Complete MUSI-TALK system consists of installation kit (plaster boxes, 200 ft. of wire and hardware) and electronic kit (1 master control, 4 indoor remotes and 1 door remote) $149.95

Write for FREE catalog MT for complete details—and literature on other Fanfare intercoms for home and industry. Territories available for distributors.

FANON ELECTRIC CO., INC.
MFRS. OF "FANFARE" INTERCOMS AND PHONOGRAPH
98 BERRIMAN ST., BROOKLYN 8, N. Y.

SENSENICH

hard maple
COUNTERTOPS

...add utility and beauty to every kitchen!

Sensenich Counter Tops are built by the same skilled hands that make Sensenich Airplane Propellers, used on private planes throughout the world. That’s why you’ll take justifiable pride in installing and selling Sensenich laminated wood Counter Tops ...

- made of kiln dried northern hard maple
- electronically glued with moisture resistant urea resin
- available with or without backsplash
- stocked in standard sizes: 1 1/8” thick, 12” to 96” long, 25” wide

Mail coupon today for complete information and price lists.

SENSENICH CORPORATION, LANCASTER, PENNSYLVANIA

SENSENICH Chopping Blocks and Pastry Boards — made to the same high quality standards. Available from stock. Write for facts.

Name...........................................................................................................
Address........................................................................................................
City..........................................................State..........................

AMERICAN BUILDER | Reference File
PLUMBING FIXTURES
Firm’s complete line is shown in 52-page catalog—bathtubs, lavatories, water closets, sinks in enameled cast iron, porcelain on steel and vitreous china.—Ingersoll-Humphries Division, Borg-Warner Corp.
Circle No. D75 on reply card Section G

WATER HEATER
Operating features, technical data on Thermador glass-lined electric water heater are given in color brochure.—A. J. Lindemann & Hoverson Co.
Circle No. D76 on reply card Section G

BATHROOM ACCESSORIES
Catalog describes full line of bathroom cabinets which feature high quality baked enamel finish. Also included is descriptive data on firm’s line of bathroom accessories such as towel bars, paper holders, soap dishes and etc.—The F. H. Lawson Co.
Circle No. D77 on reply card Section G

Weber...add utility and beauty to every kitchen!

Blocks and Pastry Boards — made to the same high quality standards. Available from stock. Write for facts.

SENSENICH Corporation, Lancaster, Pennsylvania

SENSENICH Chopping Blocks and Pastry Boards — made to the same high quality standards. Available from stock. Write for facts.
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BUILDER Reference
File

BAR-BROOK
BREEZE BUILDER
Package Unit FANS

SHOWERS

Brochure describes firm's line of shower cabinets available with or without glass doors. Also included is data on a full line of pre-cast terrazzo bases for all types of shower construction.—Superior Shower Co.

Circle No. D78 on reply card Section G

BATHROOM ENCLOSURES

New brochures describe and show details of firm's Permalume line of shower doors, tub enclosures, shower stalls; and ShowerGlass bath enclosures.—Shower Door Co. of America.

Circle No. D79 on reply card Section G

American Builder reaches more builder-buyers than any other building publication!

NOW America's Finest Protection Devices

PROTECT TUB

are 3 Ways Better

for preventing damage after installations.

1. PROTECT TUB Deluxe

NEW IMPROVED COVERS are made of specially tough corrugated bond with exclusively processed top liner that is water repellant and damage resistant. Comes in a 2 piece unit. Tailored to fit for overall protection. Installs and removes in minutes.

Order by name. Accept no substitutes. Specify model when ordering PROTECT TUB.

2. COATATUB Liquid Vinyl Plastic Coating

NEWEST form of application for low, low cost protection at its best. Applied with ordinary white wash brush. Dries to strong, flexible film that peels off. Comes in 1 and 5 gal. cans. 55 gal. drums. 1 gal. covers 4 to 5 tubs.

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For the Protection of ALUMINUM PRIME WINDOWS—GLASS and seamless Ceramic surfaces. Also Stainless Steel. Made to dry to a tough flexible film that can be applied either by brushing or spraying. Peels off readily at completion of construction work. Comes in one and 5 gal. cans & 55 gal. drums.

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BAR-BROOK MFG. CO., INC.
6135 Linwood Ave., Shreveport, Louisiana

the beautiful new International oil burning BUILT-IN FURNACE

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Prices, details are yours! Write or phone today!

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WATER HEATERS
Complete literature is available on "Watter-Hotter" line; models illustrated and described are for a variety of applications. Also: material on firm's water softeners.—White Products Corp.
Circle No. D080 on reply card Section G

PLUMBING FIXTURES
New catalog No. 560 shows firm's complete line of plumbing fixtures for residential, institutional, commercial and industrial installations. Complete with illustrations, descriptive copy and roughing-in drawings.—Universal Rundle Corp.
Circle No. D081 on reply card Section G

VENTILATING FANS AND HOODS
New literature has been issued on firm's lines of exhaust fans and range hoods.—Berns Air King Corp.
Circle No. D082 on reply card Section G

COOLING AND VENTILATING FANS
Complete line of ventilating equipment—for home, commercial and industrial uses—is shown in attractive 12-page booklet. Includes illustrations, specifications and technical data.—Hunter Division, Robbins & Myers, Inc.
Circle No. D085 on reply card Section G

His Heart Tomorrow
More than 500,000 children with damaged hearts look to medical research... supported by the Heart Fund... for a brighter tomorrow.
Their hearts need your help today. Give generously.
VENTILATING HOODS

Color brochure gives details on firm's line of kitchen ventilators, including built-in power oven vent. Also available: folder on recessed electric wall clocks.—Swanson Mfg. Co.

Circle No. D86 on reply card Section G

RADIANT HEATING

Automatic radiant hot water heat is thoroughly covered in this new booklet. Illustrates many features of the system including application of firm’s pumps with any type heating unit.—H. A. Thrush & Co.

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Want to know who makes it?
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JACKSON MANUFACTURING COMPANY
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Doors—Windows—Millwork—Floor & Wall Finishes

Tools & Construction Equipment

Floor & Wall Finishes
### POWER TOOL WIRE SIZES

115 Volt D.C., or A.C. — Unity Power Factor. 2% Voltage Drop (2.3 Volts)

<table>
<thead>
<tr>
<th>Wire Size</th>
<th>#14</th>
<th>#12</th>
<th>#10</th>
<th>#8</th>
<th>#6</th>
<th>#4</th>
<th>#2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>.87</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>200</td>
<td>1.74</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>2.61</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>400</td>
<td>3.48</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>4.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>750</td>
<td>6.52</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td>8.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1500</td>
<td>13.04</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2000</td>
<td>17.38</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2500</td>
<td>21.72</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3000</td>
<td>26.87</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3500</td>
<td>33.50</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4000</td>
<td>39.11</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>4500</td>
<td>43.27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5000</td>
<td>50.40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6000</td>
<td>60.83</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7000</td>
<td>70.32</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>8000</td>
<td>88.11</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>9000</td>
<td>96.32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10000</td>
<td>104.43</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Above figures represent a one-way distance in feet for a 2 wire run. If a 4% voltage drop is permissible, double the distance listed.

If only 1% voltage drop is allowable, divide the distance listed by 2.

**SINGLE PHASE 115 Volt A.C.** — Use 115 Volt table above.

**SINGLE PHASE 230 Volt A.C.** — Multiply the distances in the 115 volt table No. 6A by 2½ for the same load. Use the Amps column.

**SINGLE PHASE 440 Volt circuit** — In table above, use Watts column, multiply distances by 16, or use Amperes column, multiply distances by 2.

**THREE PHASE SYSTEMS**

1. Three phase 230 volt circuit — Multiply the distances in the 115 volt table No. 6A by 2½ for the same load. Use the Amps column.

2. Three phase 440 volt circuit — Multiply the distances in the 115 volt table No. 6A by 4½ for the same load. Use the Amps column.

3. Single phase 120 volt circuit — Use the distances in the 115 volt table No. 6A. Use the Auge column.

### TYPICAL RUNNING CURRENT REQUIREMENTS OF MOTORS

<table>
<thead>
<tr>
<th>Horse Power</th>
<th>115 V</th>
<th>230 V</th>
<th>230 V</th>
<th>230 V</th>
<th>C</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8</td>
<td>2.6</td>
<td>1.3</td>
<td>14</td>
<td>14</td>
<td>120</td>
<td>12.0</td>
</tr>
<tr>
<td>3/8</td>
<td>3.2</td>
<td>1.6</td>
<td>14</td>
<td>14</td>
<td>120</td>
<td>12.0</td>
</tr>
<tr>
<td>1/2</td>
<td>4.4</td>
<td>2.3</td>
<td>14</td>
<td>14</td>
<td>120</td>
<td>12.0</td>
</tr>
<tr>
<td>7/8</td>
<td>6.0</td>
<td>3.0</td>
<td>14</td>
<td>14</td>
<td>120</td>
<td>12.0</td>
</tr>
<tr>
<td>1/2</td>
<td>8.0</td>
<td>2.7</td>
<td>14</td>
<td>14</td>
<td>120</td>
<td>12.0</td>
</tr>
<tr>
<td>1/4</td>
<td>11.0</td>
<td>3.5</td>
<td>14</td>
<td>14</td>
<td>120</td>
<td>12.0</td>
</tr>
<tr>
<td>3/4</td>
<td>14.0</td>
<td>4.2</td>
<td>14</td>
<td>14</td>
<td>120</td>
<td>12.0</td>
</tr>
<tr>
<td>1/2</td>
<td>17.0</td>
<td>5.0</td>
<td>14</td>
<td>14</td>
<td>120</td>
<td>12.0</td>
</tr>
<tr>
<td>1/4</td>
<td>22.0</td>
<td>6.0</td>
<td>14</td>
<td>14</td>
<td>120</td>
<td>12.0</td>
</tr>
</tbody>
</table>

**C** = Full Rated Load Current in amperes (Ampere while starting are MUCH higher)

**W** = Minimum Wire Size permitted by Code, larger sizes often required — Check Distance for Voltage Drop.
### SELECTING PULLEY SIZES AND SPEED RATIOS

<table>
<thead>
<tr>
<th>MACHINE RPM × MACHINE PULLEY DIAM.</th>
<th>MOTOR RPM PULLEY DIAM.</th>
<th>MOTOR RPM</th>
<th>MACHINE RPM PULLEY DIAM.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example:</strong> To find the RPM of the Motor when the following facts are known:</td>
<td><strong>Example:</strong> To find the RPM of the Machine when the following facts are known:</td>
<td><strong>Example:</strong> To find Motor Pulley Diameter when the following facts are known:</td>
<td><strong>Example:</strong> To find Machine Pulley Diameter when the following facts are known:</td>
</tr>
<tr>
<td>Machine RPM</td>
<td>3,500</td>
<td>Motor Pulley Diameter</td>
<td>6 inches</td>
</tr>
<tr>
<td>Machine Pulley Diameter</td>
<td>3 inches</td>
<td>Motor Pulley Diameter</td>
<td>6 inches</td>
</tr>
<tr>
<td>( \frac{3,500 \times 3}{6} = 1,750 \text{ RPM} ) — Motor Speed</td>
<td>( \frac{1,750 \times 6}{2} = 5,250 \text{ RPM} ) — Machine Speed</td>
<td>( \frac{1,750 \times 2}{600} = 5.8 \text{ inches} ) — Diameter of Motor Pulley</td>
<td></td>
</tr>
</tbody>
</table>

### GENERAL SUGGESTIONS

1. For most efficient drive design to operate with a belt speed of less than 5,000 feet per minute.
2. Allow \( \frac{1}{8} \)" minimum take-up for stretch, and \( \frac{1}{4} \)" additional for each 20" of belt length.
3. Allow a minus adjustment for easy belt installation.
4. Avoid having belts too tight. This will overload the bearings and stretch the belt. Proper tension can be gaged by pressing belt together at mid-point between pulleys. The movement of the belt should be about \( \frac{1}{2} \)" to 1".
5. A reduction of only 10% in tension will increase belt life up to 60%.
6. Increasing the diameters of the pulleys increases the belt life.
7. Pulleys should be in line. Misaligned pulleys wear the sides of the belt and place undue strain on bearings and motor.

### BELT DESIGNATION STANDARDS

Now belt numbers, new standard with most manufacturers are based on the top width dimension and the outside circumference of the belt.

Belt designations are given thus:

- Width of top of belt in 8ths of an inch.
- Belt length in inches.

**Example:** a belt 6/8 inch wide with a circumference of 44 inches would read:

- Width of top (6/8) or 6L
- Circumference 44" or 440
- Belt designation: 6L 440

### BELT SPEEDS

To find the speeds in feet per minute of belt travel the following formula is used:

\[
\text{RPM} \times \frac{D \times 0.262}{2} = \text{fpm}
\]

or

\[
\text{RPM} \times \frac{d \times 0.262}{2} = \text{fpm}
\]

Note: RPM = revolutions of pulley used in formula

- \( D \) = Diameter of largest pulley
- \( d \) = Diameter of smallest pulley

### BELT LENGTH REQUIREMENTS

The following symbols are used in these formulas:

- \( D \) = Outside diameter of larger pulley in inches
- \( d \) = Outside diameter of smaller pulley in inches
- \( C \) = Distance between centers of pulleys

To find the length of belt required when both pulleys are the same diameter:

\[
2C + 1.57 \left( \frac{D + d}{2} \right) = \text{Belt Length}
\]

To find the length of belt required when pulleys are unequal diameter:

\[
2C + 1.57 \left( \frac{D + d}{2} \right) + \frac{(D - d)^2}{4C} = \text{Belt Length}
\]

### QUARTER TURN DRIVES

This type of drive is used where it is necessary to have the motor and driven pulleys at right angles to each other. The design is basically the same as a standard drive with the following exceptions:

1. The center distance should be about six times the diameter of the largest pulley to insure maximum belt life.
2. When the speed ratio exceeds 2½ to 1 it is usually more practical to incorporate a reduction drive to the \( \frac{1}{4} \) turn drive to reduce its ratio to about 1 to 1.
### Section E Tools & Construction Equipment

#### CONTRACTORS PUMPS

**MODEL 4-M**

The following table gives capacity in gallons per minute:

<table>
<thead>
<tr>
<th>TOTAL HEAD INCLUDING FRICTION</th>
<th>HEIGHT OF PUMP ABOVE WATER</th>
<th>10 Ft.</th>
<th>15 Ft.</th>
<th>20 Ft.</th>
<th>25 Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 ft.</td>
<td>67</td>
<td>66</td>
<td>65</td>
<td>63</td>
<td>59</td>
</tr>
<tr>
<td>20 ft.</td>
<td>66</td>
<td>65</td>
<td>63</td>
<td>54</td>
<td>49</td>
</tr>
<tr>
<td>25 ft.</td>
<td>65</td>
<td>62</td>
<td>56</td>
<td>37</td>
<td>35</td>
</tr>
<tr>
<td>30 ft.</td>
<td>63</td>
<td>60</td>
<td>56</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>35 ft.</td>
<td>60</td>
<td>58</td>
<td>54</td>
<td>13</td>
<td>13</td>
</tr>
</tbody>
</table>

**MODEL 7-M**

The following table gives capacity in gallons per minute:

<table>
<thead>
<tr>
<th>TOTAL HEAD INCLUDING FRICTION</th>
<th>HEIGHT OF PUMP ABOVE WATER</th>
<th>10 Ft.</th>
<th>15 Ft.</th>
<th>20 Ft.</th>
<th>25 Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 ft.</td>
<td>115</td>
<td>114</td>
<td>107</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>30 ft.</td>
<td>114</td>
<td>113</td>
<td>107</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>35 ft.</td>
<td>113</td>
<td>113</td>
<td>107</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>40 ft.</td>
<td>112</td>
<td>112</td>
<td>107</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>45 ft.</td>
<td>111</td>
<td>111</td>
<td>107</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>50 ft.</td>
<td>110</td>
<td>110</td>
<td>107</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>55 ft.</td>
<td>109</td>
<td>109</td>
<td>107</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>60 ft.</td>
<td>108</td>
<td>108</td>
<td>107</td>
<td>94</td>
<td>94</td>
</tr>
</tbody>
</table>

**MODEL 10-M**

The following table gives capacity in gallons per minute:

<table>
<thead>
<tr>
<th>TOTAL HEAD INCLUDING FRICTION</th>
<th>HEIGHT OF PUMP ABOVE WATER</th>
<th>10 Ft.</th>
<th>15 Ft.</th>
<th>20 Ft.</th>
<th>25 Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 ft.</td>
<td>166</td>
<td>166</td>
<td>166</td>
<td>166</td>
<td>166</td>
</tr>
<tr>
<td>30 ft.</td>
<td>165</td>
<td>165</td>
<td>165</td>
<td>165</td>
<td>165</td>
</tr>
<tr>
<td>35 ft.</td>
<td>164</td>
<td>164</td>
<td>164</td>
<td>164</td>
<td>164</td>
</tr>
<tr>
<td>40 ft.</td>
<td>163</td>
<td>163</td>
<td>163</td>
<td>163</td>
<td>163</td>
</tr>
<tr>
<td>45 ft.</td>
<td>162</td>
<td>162</td>
<td>162</td>
<td>162</td>
<td>162</td>
</tr>
<tr>
<td>50 ft.</td>
<td>161</td>
<td>161</td>
<td>161</td>
<td>161</td>
<td>161</td>
</tr>
<tr>
<td>55 ft.</td>
<td>160</td>
<td>160</td>
<td>160</td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td>60 ft.</td>
<td>159</td>
<td>159</td>
<td>159</td>
<td>159</td>
<td>159</td>
</tr>
</tbody>
</table>

**MODEL 15-M**

The following table gives capacity in gallons per minute:

<table>
<thead>
<tr>
<th>TOTAL HEAD INCLUDING FRICTION</th>
<th>HEIGHT OF PUMP ABOVE WATER</th>
<th>10 Ft.</th>
<th>15 Ft.</th>
<th>20 Ft.</th>
<th>25 Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 ft.</td>
<td>266</td>
<td>266</td>
<td>266</td>
<td>266</td>
<td>266</td>
</tr>
<tr>
<td>40 ft.</td>
<td>265</td>
<td>265</td>
<td>265</td>
<td>265</td>
<td>265</td>
</tr>
<tr>
<td>45 ft.</td>
<td>264</td>
<td>264</td>
<td>264</td>
<td>264</td>
<td>264</td>
</tr>
<tr>
<td>50 ft.</td>
<td>263</td>
<td>263</td>
<td>263</td>
<td>263</td>
<td>263</td>
</tr>
<tr>
<td>55 ft.</td>
<td>262</td>
<td>262</td>
<td>262</td>
<td>262</td>
<td>262</td>
</tr>
<tr>
<td>60 ft.</td>
<td>261</td>
<td>261</td>
<td>261</td>
<td>261</td>
<td>261</td>
</tr>
</tbody>
</table>

**MODEL 20-M**

The following table gives capacity in gallons per minute:

<table>
<thead>
<tr>
<th>TOTAL HEAD INCLUDING FRICTION</th>
<th>HEIGHT OF PUMP ABOVE WATER</th>
<th>10 Ft.</th>
<th>15 Ft.</th>
<th>20 Ft.</th>
<th>25 Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 ft.</td>
<td>333</td>
<td>333</td>
<td>333</td>
<td>333</td>
<td>333</td>
</tr>
<tr>
<td>40 ft.</td>
<td>332</td>
<td>332</td>
<td>332</td>
<td>332</td>
<td>332</td>
</tr>
<tr>
<td>45 ft.</td>
<td>331</td>
<td>331</td>
<td>331</td>
<td>331</td>
<td>331</td>
</tr>
<tr>
<td>50 ft.</td>
<td>330</td>
<td>330</td>
<td>330</td>
<td>330</td>
<td>330</td>
</tr>
<tr>
<td>55 ft.</td>
<td>329</td>
<td>329</td>
<td>329</td>
<td>329</td>
<td>329</td>
</tr>
</tbody>
</table>

The tables shown on this page have been adopted as minimum capacity standards by the Contractors Pump Bureau of The Associated General Contractors of America, Inc., and set forth the performance requirements under average job conditions.
### Trench Excavation

**Minimum Recommendations for Trench Timbering**

Based on use of Douglas fir or equivalent


**Trenches not more than 42" wide.**

<table>
<thead>
<tr>
<th>Depth of Trench in Feet</th>
<th>Uprights</th>
<th>Stringers</th>
<th>Cross Bracing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Size</td>
<td>Horizontal Spacing</td>
<td>Size</td>
</tr>
<tr>
<td><strong>Hard and Solid Soils</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4'-10'</td>
<td>2&quot;x6&quot;</td>
<td>6' c-c</td>
<td>None</td>
</tr>
<tr>
<td>10'-15'</td>
<td>2&quot;x6&quot;</td>
<td>4' c-c</td>
<td>None</td>
</tr>
<tr>
<td>Over 15'</td>
<td>2&quot;x6&quot;</td>
<td>Close Tight</td>
<td>4&quot;x12&quot;</td>
</tr>
<tr>
<td><strong>Soil Likely to Crack and Crumble</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4'-10'</td>
<td>2&quot;x6&quot;</td>
<td>3' c-c</td>
<td>2&quot;x6&quot;</td>
</tr>
<tr>
<td>10'-15'</td>
<td>2&quot;x6&quot;</td>
<td>3' c-c</td>
<td>2&quot;x6&quot;</td>
</tr>
<tr>
<td>Over 15'</td>
<td>2&quot;x6&quot;</td>
<td>Close Tight</td>
<td>4&quot;x12&quot;</td>
</tr>
<tr>
<td><strong>Soft Sandy Filled or Loose Soils</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4'-10'</td>
<td>2&quot;x6&quot;</td>
<td>Close Tight</td>
<td>4&quot;x6&quot;</td>
</tr>
<tr>
<td>10'-15'</td>
<td>2&quot;x6&quot;</td>
<td>Close Tight</td>
<td>4&quot;x6&quot;</td>
</tr>
<tr>
<td>Over 15'</td>
<td>2&quot;x6&quot;</td>
<td>Close Tight</td>
<td>4&quot;x12&quot;</td>
</tr>
</tbody>
</table>

**Trenches of any width.**

<table>
<thead>
<tr>
<th>Depth of Trench in Feet</th>
<th>Uprights</th>
<th>Stringers</th>
<th>Cross Bracing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Size</td>
<td>Horizontal Spacing</td>
<td>Size</td>
</tr>
<tr>
<td><strong>Soils Likely to Crack or Crumble</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4'-10'</td>
<td>2&quot;x6&quot;</td>
<td>3' c-c</td>
<td>4&quot;x6&quot;</td>
</tr>
<tr>
<td>Over 20'</td>
<td>2&quot;x6&quot;</td>
<td>Close</td>
<td>6&quot;x8&quot;</td>
</tr>
<tr>
<td><strong>Soil Sandy Filled or Loose Soils</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4'-10'</td>
<td>2&quot;x6&quot;</td>
<td>3' c-c</td>
<td>4&quot;x6&quot;</td>
</tr>
</tbody>
</table>

**Trenches more than 42" in width.**

<table>
<thead>
<tr>
<th>Not over 8'</th>
<th>Uprights</th>
<th>Stringers</th>
<th>Cross Bracing</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot;x6&quot;</td>
<td>T&amp;G Close</td>
<td>6&quot;x8&quot;</td>
<td>6&quot;x8&quot;</td>
</tr>
<tr>
<td>Over 8'</td>
<td>T&amp;G Close</td>
<td>8&quot;x10&quot;</td>
<td>6&quot;x8&quot;</td>
</tr>
</tbody>
</table>

*Sheet steel piling may be used in place of tongue and groove piling.

The greater dimension of the stringers should be at right angle to the sheeting.

**Storing excavated material.** Note material is placed not nearer than two feet from edge of trench.
SAFE SCAFFOLDING PRACTICES

Various types of scaffolds are used in building construction, such as single pole scaffolds, independent (four pole) scaffolds, suspended scaffolds, outrigger scaffolds, and horse scaffolds. In the construction of these scaffolds the following suggestions should be carefully considered:

(a) All lumber used in scaffolds should be of good quality, reasonably straight grained and free from weakening knots and other defects.

(b) Scaffolds should be built and installed by men thoroughly understanding the principles of design and the safe loads that various members can carry.

(c) Special lumber selected for scaffold use should be painted green on the end so it can be distinguished from other miscellaneous lumber.

(d) Scaffold bracing should be installed in triangular fashion.

(e) When it is necessary to splice an upright member of a scaffold, cleats not less than 4 feet long should be nailed on two adjacent sides of the upright at the joint.

(f) Planks for flooring should be of uniform thickness. They should extend at least 6 inches and not more than 12 inches past the center of the putlog or other support.

(g) Scaffolds (with the possible exception of iron workers' or riveters' scaffolds, carpenters' bracket scaffolds, and trestle or A-ladder scaffolds), if 6 feet or more above the ground, should have substantial handrails and toe boards installed on all open sides. Handrails should be approximately 42 inches high; and toe boards not less than 5½ inches high. If the lower edge of the railing is more than 34 inches above the scaffold floor, an intermediate rail shall be installed.

(h) It is advisable to install a wire screen for fencing scaffolds. Otherwise, their work places and passageways should be roofed over so no one will be injured by objects falling from the scaffold.

(i) One or more safe means of access such as stairs or ladders should be provided to reach each scaffold platform. If a ladder is used, it should be fastened at the top and bottom so it cannot tip or slip.

(j) Men should not jump on a scaffold, nor should anything be allowed to fall onto or off a scaffold.

(k) Men should not work nor pass under scaffolds. Otherwise, their work places and passageways should be roofed over so no one will be injured by objects falling from the scaffold.

(l) Hoisting engineers should be warned not to operate without the necessary equipment.

(m) Scaffolds should be fenced in or otherwise protected so trucks and other vehicles cannot strike or dump material against them.

(n) Blacktopping engineers should be warned not to let loads swing against scaffolds or catch on them.

(o) Men should not work on an outside scaffold during a storm or in a high wind.

(p) Swinging scaffolds should be lowered to the ground or lashed to the building when men leave the job.

(q) Wire rope is recommended in preference to manila rope for suspended scaffolds.

(r) Planks for flooring should be of uniform thickness.

SAFE SCAFFOLDING PLANKS

<table>
<thead>
<tr>
<th>Species</th>
<th>Fiber stress in pounds per sq. in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Balsam Fir, Eastern White Pine, Ponderosa Pine, Sugar Pine and Western White Fir</td>
<td>1.050</td>
</tr>
<tr>
<td>2. Redwood and Tamarack</td>
<td>1.400</td>
</tr>
<tr>
<td>3. White Ash, Red Oak, White Oak and Baldcypress</td>
<td>1.500</td>
</tr>
<tr>
<td>4. Douglas Fir (Coast Region) and Southern Yellow Pine</td>
<td>1.750</td>
</tr>
<tr>
<td>5. Dense Douglas Fir and Dense Southern Yellow Pine</td>
<td>2.050</td>
</tr>
</tbody>
</table>

Above table applies to planks surfaced 4 sides, seasoned to moisture content between 15 and 8 per cent, free from shakes, decay or other defects. Slope of grain not steeper than 1 in 15. Knots in edge not larger than 1/4 of plank thickness. Knots in center of wide face not larger than 1/3 of plank width, with permissible size decreasing as they approach edge to 1/8 of plank width at edge. Sum of sizes of all knots in wide face in length equal to plank width not to exceed 1/3 of plank width. Average plank weight of 30 pounds per cu. ft. included.

Courtesy National Safety Council
Sidewalk sheds (or bridges) are used commonly for the protection of pedestrians on sidewalks adjacent to buildings under construction, being demolished or undergoing repairs or alterations.

Some states and cities specify conditions under which sidewalk sheds must be provided, and establish standards for their construction. Recommendations herein are based on the requirements of the Safety Code for Building Construction, A-10, approved by the American Standards Association and referred hereafter as the Construction Code. Where local city or state codes, or applicable federal codes, are more stringent, they will take precedence.

**SHED SPECIFICATIONS**

The Construction Code permits the use of wood, steel or other suitable material but requires that the shed be capable of sustaining a load of at least 300 pounds per square foot, if material is to be stored on the shed. If there is to be no material storage, the requirement is 150 pounds per square foot. Because in most cases material is stored on the sheds, it is recommended that all of them be built to handle storage.

For sheds of wood construction Number 1 Douglas fir, Sitka spruce, or other woods of equivalent strength are commonly used. Lumber should be free from defects or damage which will materially reduce its strength. Structural members such as posts, sills and girders should be of sizes sufficient to provide strength as recommended in the first paragraph and to ensure stability of the structure. The latter factor usually takes precedence, and 6" x 6" posts and sills and 6" x 8" girders are commonly used.

The deck should be of not less than 2-inch planking, laid on deck-beams spaced not more than 24" center to center. Deck beams of at least 3" x 10" material should be used for sidewalks widths up to ten feet; for wider sidewalks heavier beams should be used.

Most codes recognize the use of steel or other materials but give no definite specifications other than a requirement that strength equivalent to that specified for wood be provided. Plank decking is the same as that on a shed of wood construction.

It is customary to make the shed of sufficient width to permit use of the full width of the existing sidewalk except for the necessary space occupied by the posts and sills. In any event the width should be sufficient to accommodate normal traffic without congestion.

Where the shed is adjacent to the face of the building, it should be so constructed that material cannot be dropped between the shed and the building otherwise. A solid back-fence should be provided at the line of the inner posts. The exposed surface of the back-fence should be smooth and free from protruding nails, wire, rods or other projections. Where material is dumped into trucks through chutes above the shed, the outer edge of the passageway should also have a solid enclosure.

The deck flooring should be made watertight. In some designs a watertight under-ceiling is provided.

Where material is to be removed from or taken into the building through the shed enclosure, the necessary openings should be kept closed when not in use. During use watchmen should be provided for protection of the public.

Where required to provide adequate visibility, lights should be installed in the structure. Where local ordinances do not govern the installation of wiring and fixtures, the recommendations of the National Electrical Code should be followed. Where protection is built along the curb line and is exposed to highway traffic, red warning lights should be placed on the street side of the structure, so that they are visible to approaching traffic from a distance of at least 200 feet.

To prevent material from falling off the shed, the outside edge and the ends of the deck should have a substantial enclosure at least 42 inches high. It may be either vertical or inclined outward at an angle of approximately 45 degrees. The enclosure may be of closely laid planking or toeboards and wire mesh screening of not less than No. 16 U. S. gauge wire with openings not larger than 1½ inches. Regardless of the type of construction, all members of the shed structure should be braced and connected to resist displacement of the members or distortion of the framework.

Where installed, a sidewalk shed does not make it safe to drop material down the outside of the structure. This practice should be prohibited, regardless of sidewalk protection.

**Typical design for a sidewalk shed of wood construction. This drawing is one of a series of Detail Sheets published by the National Safety Council.**

Courtesy National Safety Council
Section E Tools & Construction Equipment

BLOCK & TACKLE DATA

1. Single Whip
   \[ P = W \]

2. Single Whip with Block
   \[ \frac{P}{W} = \frac{10}{20} \]

3. Gun Tackle Purchase
   \[ \frac{P}{W} = \frac{10}{30} \]

4. Inverted Gun Tackle Purchase
   \[ \frac{P}{W} = \frac{10}{40} \]

5. Luff Tackle
   \[ \frac{P}{W} = \frac{10}{30} \]

6. Inverted Luff Tackle
   \[ \frac{P}{W} = \frac{10}{40} \]

7. Double Purchase
   \[ \frac{P}{W} = \frac{10}{50} \]

8. Inverted Double Purchase
   \[ \frac{P}{W} = \frac{10}{50} \]

9. Spanish Burton
   \[ \frac{P}{W} = \frac{10}{30} \]

10. Double Spanish Burton
    \[ \frac{P}{W} = \frac{10}{50} \]

11. Bell Purchase
    \[ \frac{P}{W} = \frac{10}{70} \]

12. Luff upon Luff
    \[ \frac{P}{W} = \frac{10}{120} \]
HOW TO USE A TRANSIT

HOW TO LAY OUT A BUILDING (Fig. 1): Using the plumb bob, suspended from the hook under the spindle, locate the station mark or corner of the lot or building to be laid out. Center the instrument directly over this point by shifting the legs of the tripod so that the plumb bob hangs directly over the station point. To bring plumb bob to this position, loosen leveling screws and shift instrument until the plumb bob points to center. Level up the instrument by tightening the leveling screws.

Street line in the illustration is XX. The corner of the proposed building is L, distance from the street line PL. Then a distance RT should be measured from the street, equal to PL, at a point determining the length of the proposed building. Now the line LT is parallel with the street. And LT represents the two front corners of the building.

To get the line at right angles to LT, leave the sights on the stake at T and turn the eyepiece end of the telescope to the left until the vernier has turned a right angle, or 90°. A sight along this new position will give the line LM, on which the necessary distance is measured off to determine the corner M. Now move level to T, and go through same operation to determine corner N.

To prove the correctness of the survey, check the distance MN, to see that it is the same as the distance LT.

WHEN A BUILDING IS NOT A RECTANGLE (Fig. 2): In such a case, proceed as previously explained. However, additional points must be arranged for, and in that respect small errors are likely to creep in. In all cases, first lay out a large rectangle, along the outside extremities of the proposed building. This is represented by ABCD. These points established, the remaining portion of the layout will consist of small rectangles. Each of these can be laid out and proved separately. In the illustration (Fig. 2) these other rectangles are represented by EFGD, HJIC, KLMa and NOPQ.

ESTABLISHING LEVELS WITH A TRANSIT: Set up the instrument where points may be seen through the telescope. Level up the transit and take a reading where cross-hair cuts on the measuring rod. The rod is then moved to the second point to be established. Then rod is raised or lowered until the original reading is located. The bottom of the rod is then on the same level with the original point.

MEASURING DIFFERENCE IN ELEVATION (Figs. 3 and 4): If the instrument has been properly leveled and is not out of adjustment, the line of sight set up by the telescope when locked in the level position is horizontal in any direction. To obtain the difference in elevation between two points, such as points A and B, Fig. 3, set up and level the instrument at an intermediate point, adjusting the tripod to any convenient height. Sight on a rod held over point A, note the reading where the horizontal cross-hair of the telescope cuts the graduation on the rod. Then, with the rod held on point B, rotate the telescope in a horizontal plane, again sight on the rod and note where the horizontal cross-hair cuts the graduation on the rod. The difference between the reading at A (6 ft.) and the reading at B (6½ ft.) will give the difference in elevation between the two points. Point B is ½ ft. lower than point A. In making these readings, the telescope must be carefully focused on the rod or other object on which it is sighted.

When, for any reason such as irregularity of the ground or a large difference in elevation, the two points whose difference in elevation is to be determined cannot be sighted from a single point, "intermediate points" must be used, as shown in Fig. 4.

ESTABLISHING POINTS ON A LINE (Fig. 5): The transit may be used to establish points on a line as when a number of stakes in line—but at different heights—are to be located. Swing the two locking levers out of the way and loosen the vertical-motion clamp screw so that the telescope is free to rotate in the vertical plane. Level the instrument and center it accurately by means of the plumb bob and shifting center over the first point. Then release the two locking levers and the vertical circle clamp screw and telescope on the most distant visible known point of the line. Lock the horizontal-motion clamp screw to prevent the telescope from moving out of the vertical plane in which the stakes are to be set, and place the vertical cross-hair exactly on the point with the tangent screw. Then, by rotating the telescope in the vertical plane, the exact location of any number of stakes on that line may be instantly determined, Fig. 5.
SHOP LAYOUT FOR WOOD WORKING MACHINES

**CIRCULAR SAW**
- Enough room for long boards
- Operator is protected since no one can pass on operating side
- Approach from circular saw
- Provide ample light to read dimensional and angle dials and controls
- Wide aisle on this side.

**BAND SAW**
- Can be near wall
- Allow 5 to 6 feet here
- Room for long boards
- Do not have anything in path of saw travel

**SCROLL SAW**
- Can be close to wall
- Lamp attachment
- Do not have an aisle here or here

**JOINTER**
- Enough room for long boards
- Overhead light
- Nothing in this path

**SHAPER**
- Light
- 8 feet all around this area
- Nothing in this path
- Approach from circular saw

**PLANER**
- Light
- Allow 3 feet all around for mortising and routing
- Wide aisle is allowable here because stock worked is usually small

**RADIAL ARM SAW**
- Direction of belt travel
- Standing room for operator

**BELT SANDER**
- Light
- Wide aisle is allowable
- Have well lighted.

**WOOD TURNING LATHE**
- Overhead light
- Head stock

**GRINDER**
- 45° or less
- Head stock

**AMERICAN BUILDER**
### Section E Tools & Construction Equipment

#### DRILL SIZE DATA

##### LETTER SIZE DRILLS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<td>.234</td>
<td>G</td>
<td>.261</td>
<td>L</td>
<td>.290</td>
<td>Q</td>
<td>.332</td>
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<tr>
<td>B</td>
<td>.238</td>
<td>H</td>
<td>.266</td>
<td>M</td>
<td>.295</td>
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<td>.339</td>
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<td>I</td>
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<td>.302</td>
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##### NUMBER SIZE DRILLS

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##### DECIMAL EQUIVALENTS

| 1/64 = .015625 | 1/4 = .250 | 1/2 = .500 | 3/4 = .750 |
| 1/32 = .03125  | 17/64 = .265625 | 33/64 = .515625 | 49/64 = .765625 |
| 3/64 = .046875  | 9/32 = .28125  | 19/64 = .296875  | 25/64 = .3125  |
| 1/16 = .0625  | 21/64 = .328125  | 37/64 = .578125  | 51/64 = .796875  |
| 1/8 = .078125  | 5/32 = .19375  | 13/64 = .21875  | 25/64 = .359375  |
| 3/32 = .09375  | 11/32 = .34375  | 19/32 = .59375  | 55/64 = .859375  |
| 7/64 = .109375  | 23/64 = .59375  | 39/64 = .609375  | 59/64 = .921875  |
| 9/64 = .140625 | 25/64 = .390625 | 41/64 = .640625 | 57/64 = .890625 |
| 5/32 = .15625  | 13/32 = .40625  | 21/32 = .65625  | 29/32 = .90625  |
| 11/64 = .171875 | 27/64 = .421875 | 43/64 = .671875 | 59/64 = .921875 |
| 1/32 = .1875  | 7/32 = .46875  | 15/32 = .71875  | 13/32 = .96875  |
| 3/16 = .234375 | 29/64 = .453125 | 45/64 = .703125 | 61/64 = .953125 |
| 7/32 = .21875  | 15/32 = .46875  | 23/32 = .71875  | 31/32 = .96875  |
| 1/16 = .1875  | 31/64 = .484375 | 47/64 = .734374 | 63/64 = .984375 |

**APRIL 1957**
“My Berger Convertible paid for itself on this one job alone!”

says F. E. Fitzpatrick, Building Contractor, Westwood, N. J.

“When I signed the contract to build this house, I had my fingers crossed. The specifications gave me no leeway—grades had to be on the button. So I decided to take out "job insurance" by getting a transit level I could trust—a Berger Convertible. So far, I’ve used it for leveling foundations, setting forms, locating buried survey stakes, setting the first course of siding and establishing some tricky grades. Before this job was finished, my Berger Convertible paid for itself.”

That’s because the Berger Convertible is built for builders. The new, ultra-sharp, 22-power, 10½" internal focusing telescope gives you a crisp, clear, right side up image over long sights as well as at distances as close as three feet. Rugged brass and bronze construction—dust protected leveling, clamp and tangent screws—it takes the bumps in the field and stays on the job without time lost for repair.

Why the new Berger Convertible with 3-ft. short focus is the best buy...

**Compare**

| TELESCOPE: | Short focus 3 feet; bronze; erect image; power 22 diameters; diameter of objective 35 mm. |
| OPTICS: | Coated—brilliant, clear image |
| FOOT PLATE: | Forged brass; travels integral |
| YOKE FRAME: | Cast bronze |
| HORIZONTAL CIRCLE: | Forged brass, with double vernier reading to five minutes |
| VERTICAL ARC: | With double vernier reading to five minutes |
| LEVELING BASE: | Four screws; socket silver leveling screws with cold and heat-resistant heads |
| SPINDLE: | Forged steel |
| SHIFTING PIECE: | For setting over a point |
| TANGENT PIECE: | Brass |
| TELESCOPE CLAMP: | Brass |
| POSITIVE LOCKING MECHANISM: | Converts instrument from transit to level with ease and speed and stays in adjustment at all positions |
| PLANE LEVEL: | In addition to telescope vial |
| CASE: | Mahogany transit case |
| STRAP: | Padded leather handle |

Quick delivery—thanks to enlarged capacity.


Write for literature on the Berger Convertible, our 12” Dumpy Level, Service Transit-Level and Duplex Level. And ask about our Engineers’ Transits and Levels.


*F.O.B. Factory.

THE BEST IN SIGHT IS

BERGER

ENGINEERING AND SURVEYING INSTRUMENTS... SINCE 1871

You can tell a DISSTON by the way it cuts

When you use your Disston, note how easily it cuts through the wood. Its clean, sharp bite is due to the bevel filed teeth, the double taper ground blade perfectly tempered to hold its fine edge. Disston is "the saw carpenters use" because carpenters know there’s so much extra satisfaction in owning and using fine tools. Disston makes fine tools. Your choice of four quality saws—D-23, D-8, D-7, D-95—in a variety of points and lengths.

At better hardware and building supply dealers... everywhere!

For free folders, write to:

**DISSTON - HKP**

Henry DISSTON DIVISION - H. K. PORTER COMPANY, Inc.

**DISSTON - HKP**

Henry DISSTON DIVISION - H. K. PORTER COMPANY, Inc.

IN A JAM?

GET ARROW!

CAN’T JAM?


ARROW FASTENER CO., INC., One Junius St., Brooklyn, N. Y.


ARROW FASTENER CO., INC., One Junius St., Brooklyn, N. Y.
TRANSLIT-LEVEL
Illustrated brochure describes instrument which looks like and is used as transit but also is used quickly as a level. Contains complete specifications. — Warren-Knight Co.
Circle No. E1 on reply card Section G

CONCRETE FORMS
Color brochure shows concrete forming equipment in a number of applications. Includes standard and heavy pressure panels, illustrations of hardware.—Waco Mfg. Co.
Circle No. E2 on reply card Section G

CONCRETE EQUIPMENT
This 16-page catalog on concrete equipment gives complete information on electric and gasoline vibrators, grinders, vibrating screeds and rotary trowels.—Stow Manufacturing Co.
Circle No. E3 on reply card Section G

CONCRETE FORMS
New literature tells "how to" story of foundation work with concrete forms. Includes tips for setting up job; pouring recommendations.—Simplex Forms System, Inc.
Circle No. E4 on reply card Section G

EXCAVATING EQUIPMENT
Two types of power digger attachments for front-end tractor mounting are shown in these folders. Hydraulic controls these diggers work on the back-hoe principle and are adaptable to all types of trenching and excavating.—Sherman Products, Inc.
Circle No. E5 on reply card Section G

TRACTOR ATTACHMENTS
Descriptive brochures on a front end loader and a fork lift attachment for Ford tractors. Each of these attachments also have additional accessories.—Sherman Products, Inc.
Circle No. E6 on reply card Section G

STANLEY Electric Tools

NEW!

Heavy duty belt sander does more . . . costs less

It's new! It's heavy duty! It's Stanley! And the H31 does more —
Because it sands faster than other belt sanders.
Because the ball bearing motor runs cool and stays cool.
Because the drive belt delivers full power to the sanding belt.
Because it doesn't need constant lubrication.
Because it is heavy duty and has a long working life.
Because it has a low noise level in use.

the H31 costs less —
less than any comparable heavy duty belt sander sold today.

H331 Belt Sander Kit—$96.95
Here's the complete kit in convenient metal carrying case . . . sander and three belts — one coarse, one medium and one fine.

See Stanley sanders, builders saws and other professional quality electric tools at the Stanley Electric Tool distributor near you. For illustrated 1957 catalog, write Stanley Electric Tools, Division of The Stanley Works, 104 Myrtle St., New Britain, Conn.

AMERICA BUILDS BETTER AND LIVES BETTER WITH STANLEY

This famous trademark distinguishes over 20,000 quality products of The Stanley Works—hand and electric tools, drapery, industrial and builders hardware, door controls, aluminum windows, metal parts, coatings, steel and steel strapping—made in 24 Stanley plants in the United States, Canada, England and Germany.
Frame 6 to 8 times faster—finish weeks earlier

**AMF DE WALT OUT-CUTS HAND SAWS ALL WAYS!**

See your local Franchised Dealer for the proof!

**CUTS FASTER**—An AMF DeWalt® Power Saw gang-cuts studs, headers, and braces—as many as seven 2 x 4’s at one pass. Gives straight-line materials handling ... sets up for mass-production cutting on the job site. Powerful direct-drive motor handles all cuts with ease. One operator keeps a dozen or more carpenters busy nailing.

**CUTS STRAIGHTER, MORE ACCURATELY**—DeWalt automatically gives perfect accuracy every time—allows repeated cuts from the same marking. Easy-to-read scales and quick-set adjustments eliminate need for special guides and other devices—provide machine-tool accuracy on every cut.

**CUTS SAFER**—Never any danger of a dropped saw with a DeWalt. Blade and motor are always securely and safely positioned on DeWalt’s mechanical arm. All work travels straight on level table. Exclusive DeWalt features like Safety Key Switch, Power Brake, and Spir’Ator Safety Return increase safety still further. Statistics prove the original DeWalt design the safest of all.

**CUTS EASIER, PRODUCES MORE**—There’s no weight to hold with a DeWalt, no need to guide or fight the saw. Operator simply pulls saw across work. All controls are top-side for fast, easy set-ups. Operators everywhere prefer an AMF DeWalt.

**CUTS LONGER, WITHOUT MAINTENANCE**—Powerful DeWalt direct-drive motors are sealed for life—require no lubrication or maintenance. No “time-out” as with other power tools. Heavy-duty precision construction keeps DeWalt cutting, making money for you.

**MAKES ANY TYPE OF CUT**—A DeWalt gives you a complete planing mill on the job. Does everything from framing to built-ins and other extras that help sell houses ... mean extra profits for you. Use it outside or inside—carries easily through doorways, sets up anywhere you need it.

**PUT THESE ADVANTAGES TO WORK FOR YOU!** Model GW just $395 on Easi-Payment Plan. See a demonstration at your local DeWalt Franchised Dealer. FREE BOOKLET—JOB-TESTED METHODS FOR CUTTING CUTTING COST. Valuable new operator’s book—Easy Ways to Expert Woodworking—just $3.95. Send the coupon now.
BRAWN...to cut your materials handling costs!

See the 1957 INTERNATIONAL®
350 Utility tractor

See how stepped-up power, teamed with up to 1,000 pounds greater built-in weight, gives the International 350 Utility capacity and strength unmatched in the utility tractor field! Ask for a demonstration on your job...see for yourself the sure traction that lets your operators fill a half-yard loader bucket in a single pass...and how the greater weight gives full-bucket backhoe bites to speed up trenching yardage.

Response like you've never known! Listen to the smooth, confident purr of the husky, all-tractor engine, watch one-hand maneuverability with power steering. See the rugged, heavy-duty front axle. The new International 350 Utility gives strength, stamina, and capacity for greatest power profit! Choose gasoline, diesel, or LP gas engine.

So try it NOW!...get set for the spring push. Look in the classified directory under “tractors,” call your IH Dealer for a free demonstration. For a free catalog, write International Harvester Company, Dept. AB-4, P. O. Box 7333, Chicago 1, Ill.

International Harvester products pay for themselves in use—McCormick Farm Equipment, Farmall and International Tractors...Motor Trucks...Construction Equipment—General Office, Chicago 1, Illinois.

Greater built-in weight gives the International 350 Utility stability for lifting two-ton loads as high as 16½ feet! Nine or 10½-foot fork lifts also available.
make every fastening really fast!

**Shure-Set**

America's first hammer-in tool fastens to concrete and steel

Shure-Set drives like a nail, holds like an anchor. Proved more than a million times this year. All you need is a hammer. Anyone can do it.

CUTS COSTS—from 40¢ to 14¢ on wood sills, and from 25¢ to 9¢ on conduit. Finished an 8-hour electrical job in 54 minutes! The leveling plate is removable, making this an ideal tool with which to reach into inaccessible places.

Many carpenters, electricians, plumbers are saving money with Shure-Set. You can, too. Don't delay—write today! **$27.95 COMPLETE** (NO EXTRA)

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**AMERICAN BUILDER Reference File**

**FRAMING SQUARE**

Circle No. E7 on reply card Section G

**SALAMANDERS**
Oil-burning salamanders are illustrated and described in manufacturer's folder which gives performance data and shows accessories.—Scheu Products Co.

Circle No. E8 on reply card Section G

**HOISTING EQUIPMENT**
Literature is available on firm's line of derricks, hoists and winches as well as contractors material elevators and hoisting equipment.—Sasgen Derrick Co.

Circle No. E9 on reply card Section G

**GENERATORS**
Portable generators in wattages from 750 to 12,000 are described in this catalog. Current price lists as well as data on the selection of portable generators is given.—Pioneer Gen-E-Motor Corp.

Circle No. E10 on reply card Section G

**BELT CONVEYORS**
Literature available on firm's belt conveyor line includes data on parts, assembly, operations; and a parts catalog.—Sam Mulkey Co.

Circle No. E11 on reply card Section G

**POWER TOOLS**
Newly revised heavy duty electric tool catalog contains specifications and prices; and descriptions of firm's full line, including drills, saws, grinders, hammers, screwdrivers.—Milwaukee Electric Tool Corp.

Circle No. E12 on reply card Section G

**PORTABLE LOCK HAMMER**
New electric tool for sheet metal, heating, ventilating and air conditioning contractors is shown and described in folder.—Milwaukee Electric Tool Corp.

Circle No. E13 on reply card Section G
Finish Floors Fast and Profitably with HOLT machines

Compare Holt floor finishing machines with any other make for speed and ease of handling, long life, low maintenance, and price.

Holt Rotary Edgers sand floor edges, stairs, corners, closets quickly, smoothly. Full visibility, plus two-hand front and back controls permit fast starts and stops, improve control on close work.

Holt Master Professional Sanders—8" and 12". If you've ever been caught with your sander down, you'll appreciate Holt's patented demountable drum cushion. When a nail rips the cushion, or other damage occurs, you just loosen one nut and slip off old cushion, slip on new—and you're back sanding, in a matter of minutes. Only Holt offers you this profit-protecting demountable cushion. You also get sure-grip paper clamps; self-adjusting, double V belts; no chatter, no vibration, no ripples.

To remove cushion, loosen this nut. Slip off old, slip on new cushion.

Holt Whirlwind Spinners sand, grind, plane, bevel, wire brush. Extremely handy for odd-job finishing.

Holtomatic All Purpose Floor Machines put customer-pleasing finish on floors. Built for fast, heavy work. 8 quick-change attachments enable you to polish, wax, scrub, steel wool, etc. Adjustable stowaway handles, stay-put wheels, safety switch hand-grip, static shock eliminator, non-marking rubber cable and bumper, motor grease sealed for life. 16, 20 and 24" brush spread. Other models 13" to 24". All with 2-year guarantee.


For full details, fill in coupon and mail now. Sales and service centers in major cities.
MODEL 200 DTM 57-72 — Handles up to 30" buckets, has 200° continuous swing. New 72 GPM hydraulic system has triple tandem pump and split valve bank. Mounts on two-ton or larger truck.

MODEL 300-37-90 — Half-yard, 360° continuous swing. New 90 GPM hydraulic system with triple tandem pump and split valve bank! For truck or carrier mounting.

There’s no need to compromise—on cost, on capacity, on job versatility—when you look to Hopro for your equipment needs. You pick truck-mounted models like the half-yard, full-swing Model 360 or the Model 200 DTM which handles up to 30" buckets . . . available in 24 or 36 GPM or the extra heavy-duty new 72 GPM hydraulic system with triple tandem pump and split valve bank! All weather, good visibility cab is available as optional equipment. To use power you already have, there are models TTM or RTM for crawler or wheel tractor mounting, either self-powered or PTO trailer types. Or, if a completely integrated self-propelled unit fits your picture best, select the Model 185 SPR rubber-tired Hopro or the Model 190 SPC crawler unit. All twelve models give you Hopro’s feather-touch full-hydraulic operation with a wide selection of backhoe or shovel buckets, log grapples, magnets or crane equipment.

Discover how you can cut equipment costs—right now and over the long pull—with one of these work-hungry, heavy-duty HOPROS. Get the facts on the money-saving Hopro that’s built for you!
now, in portable electric saws, too,
if it's Remington, it's right!

does toughest cutting jobs easily!
gives years of dependable service!

The sturdy model 86 Electric Saw has
5 great features that make it right for you!
- Ball and needle bearings for longer wear!
- 0" to 21/2" depth capacity!
- 0" to 21/4" bevel cut at 45° angle!
- Telescoping blade guard for added safety!
- Parallel mounted motor for two-handed cutting!

Precision-built for superior performance!
Here's a saw that gives you plenty of handling ease and maneuverability. Yes, now you can have portable electric saws by Remington, the newest name in the power tool field and famous for 141 years for quality in sporting firearms and ammunition.

The Model 86 electric saw was made to zip through construction and remodeling work. It comes complete with 81/2" blade, saw dust blower and wing nut adjustment. Try it and observe the superior performance you get from the combination rip-cross blade. It was built to make tough jobs easy—as are all of Remington's famous Mall electric saws.

There's an electric saw by Mall Tool Company, Division of Remington Arms Company, Inc., for every kind of cutting job—in farming, industry and construction. For additional information, please fill out the convenient coupon.
DODGE PowerGiants

Dodge T1700 Tandem
Dodge P300 Forward-Control
Dodge 600 with Van Body
Special bodies fit readily on any Dodge chassis
Dodge 500 Stake
Dodge 400 with Beverage Body

MOST POWER OF THE LOW-PRICED 3
... in every weight class
Dodge Power Giants give you an extra bonus of power.
From 204-hp. pick-ups to 232-hp. tandems, Dodge V-8's outpower the "other two" by as much as 31%. This extra power reduces engine strain, saves wear. What's more, Dodge engines, both V-8's and 6's deliver full power on regular gas.
Dodge hauls more payload, too ... up to one-third more. And Dodge offers major advantages in driving ease, cab comfort and prestige-building good looks. See for yourself. Your Dodge dealer has a Power Giant to meet every trucking need.

Collect Your Extra Dividends
April is Extra-Dividend Month
Get extra dividends in power, extra dividends in payload, extra dividends in performance ... plus a special extra-dividend deal on a new Dodge Power Giant.
Doing the job efficiently...on time...has been a John Deere tradition for nearly 120 years.

But the big feature of modern John Deere mobile work units that always brings a smile of satisfaction to the owner, is the real, measurable dollars-and-cents saving he makes in initial cost, operating cost, and maintenance.

Mr. Wm. Perry, above, for instance, is well pleased with the way the John Deere handles his light construction work and topsoil business. But he uses the word "amazed" when he talks about its fuel economy. He owns a John Deere No. 963 Trailer with hydraulic brakes for transporting the unit, and is considering the purchase of a second John Deere tractor outfit.

The John Deere "420" Crawler with loader (left) is owned by Arthur Depue, also of East Stroudsburg. This combination is used to break shale loose from its natural formation to be used for roadbed fill. It's a severe test for any outfit, but both tractor and loader are giving excellent service on this rugged work. George Brands, the operator, says he never worked with any other tractor that has the fuel economy of the John Deere. He states that he uses only 9 gallons of gas in 10 hours of continuous maximum load operation!

Your John Deere dealer will be glad to give you more information on John Deere mobile power—crawler or wheel-type. You'll find his name in your classified directory.
FLUSH DIGGING AND 200° OPERATING ARC ON DAVIS 210 BACK-HOE

LOW-COST, TRUCK-MOUNTED BACK-HOE

THE EQUIPMENT THAT LEADS THE WAY

DISCOVER DAVIS
New Back-Hoes and Loaders for 1957

... make More Profits for You!

Here’s good news for back-hoe and loader users. Davis opens a whole new era of profits. The New 210 Davis Back-hoe has three interchangeable mounting points so you can switch digging positions from center to side for flush digging alongside buildings, fences, etc. . . . and an engineering achievement desired by all—but accomplished only by Davis—an exclusive hydraulic rotary boom swing cylinder that gives smooth, continuous 200° cushioned operating arc without ever changing a pin. Both the new 210 and the popular 185 have 7,000 pounds of breakaway power and an adjustable seat with extended foot rests.

Both models are now available as low-cost, truck-mounted units for any one-ton or larger flat-bed truck—self-powered, completely detachable, or attached in matter of minutes, and designed to fold into a compact package for easy transporting with everything being accomplished hydraulically. The Davis Loader, already the possessor of more “firsts” than any other make, has also been improved for even better workability. For better profits in 1957... for better equipment in earth moving and material handling, see DAVIS, America’s premium equipment that sells for competitive prices.

Available for Most Popular Tractors

Davis Products are sold and serviced anywhere in the United States.
For the name of your nearest dealer, call Western Union by number and ask for Operator 25 or write
(Please specify make of tractor)
**Heavy duty orbital sander does more... costs less**

**It's new! It's heavy duty! It's Stanley!**

And the H36 does more —
- Because it sands faster than other orbital sanders.
- Because the ball bearing motor runs cool and stays cool.
- Because the pad is wide and absolutely flat.
- Because full power is delivered to the pad.
- Because it is perfect for flush sanding.

the H36 costs less —
less than any comparable heavy duty orbital sander sold today.

**H36 Orbital Sander Kit—$49.95**

Here's the complete kit in convenient metal carrying case... sander and abrasive paper — 2 sheets each of coarse, medium and fine.

See Stanley sanders, builders saws and other professional quality electric tools at the Stanley Electric Tool distributor near you. For illustrated 1957 catalog, write Stanley Electric Tools, Division of The Stanley Works, 104 Myrtle St., New Britain, Conn.

**AMERICA BUILDS BETTER AND LIVES BETTER WITH STANLEY**
Choose the American Super 8 best for you: Variable Speed, 1600 to 2800 r.p.m.; or new Two-Speed, either 2000 or 2400 r.p.m.

AMERICAN FLOOR SANDERS

play an important part in every construction and remodeling job!

American Floor Sanders are as essential and familiar as the hammer, nail and saw. And for good reason! American Sanders have always done a rapid work-saving job. Today, the Super 8 delivers the most speed and performance of any sander ever built by American! It's the fastest and finest sander anywhere. Use it on all new work and remodeling. You'll step up your production, increase your profit! Write for catalog and no-obligation demonstration of the Super 8 on your next job. Step ahead and keep ahead—with American!
Fast-Action, Heavy-Duty
NO. 88 SANDER
Eliminates hand sanding. Orbital action will not scratch or burn. Gives satin-smooth finishes on wood, plaster, even metal. Does an hour's hand sanding in five minutes. Ball bearings throughout. Movable knob handle. Quick-change paper clamp. Use with, across or against the grain. Complete with 4½” x 11” paper sheets. For lighter duty, see the B&D No. 44 Sander.

CUTS AT 45° ON EITHER SIDE
Heavy-Duty
NO. 11 JIG SAW
Runs cool sawing 2 x 4’s. Cuts intricate patterns in hardwoods, sheet steel, practically any building material. Full 1” stroke. Cuts to 2” at 90°... 1½” at 45°, either side. Armature and gear shaft mounted on ball bearings. Combines work of sabre saw, rip saw, crosscut saw, coping saw, hand saw, and key hole saw. For lighter work specify the B&D U-10 Jig Saw.

Always handy
B&D
3/8" UTILITY DRILL
Light and handy as a ¼” drill, but has extra power and capacity to do tougher-than-ordinary drilling jobs. Drives masonry bits to ½”, twist drills to ⅜”, wood augers to 3/4”, hole saws to 1⅛”. Has ideal speed for B&D Screw Driving Attachment. Black & Decker has a complete range of types and sizes of drills (⅛” to 1¼” capacity) for any building job.
New Heavy-Duty Saw Line! Outstanding Performers!

No. 63 Compact & Powerful
Rips through 2 x 4's, even at 45° angle. Cuts almost any building material with proper blade. Maximum cut at 90°, 2\(\frac{1}{8}\)"; at 45°, 1\(\frac{1}{4}\)" (dressed 2\(\frac{1}{2}\)). Comes complete with B&D Kro-Bide Combination Blade.

No. 73 Rugged & Versatile
Ideal all-around builder’s saw. Weighs only 13\(\frac{3}{4}\) lbs., yet with 25% more power, it can cut all day long. Has new double-guide line sight for accuracy. Cuts 2\(\frac{1}{4}\)" at 90°; 2\(\frac{1}{2}\)" at 45°. Comes complete with Kro-Bide Combination Blade.

No. 83 Builder's Workhorse
Guts to do the job better, faster. Controlled airflow prevents overheating, blows sawdust away from eyes, line of cut. Cuts to 2\(\frac{3}{8}\)" at 90°; 2\(\frac{1}{2}\)" at 45°. Not shown: B&D No. 93. Cuts to 3\(\frac{1}{4}\)" at 90°; 2\(\frac{1}{8}\)" at 45°.

Four New Models...
designed to outcut, outperform, outlast other leading saws!

NEW POWER! B&D-built motors specially designed for tough sawing jobs. Heat-treated helical gears assure smoother, quieter operation.

NEW VISIBILITY! New B&D picture-window design makes line-of-cut and cutting edge visible at all times. Powerful fan blows sawdust away from the job, away from your eyes.

NEW HANDLING EASE! Handle located closer to blade for better control in the wood. Quick adjustments for accurate depth and bevel adjustments.

HARDBOARD BEVELER
The famous Bevel Devil has been re-designed to enable it to bevel the edges of any type hardboard—tempered or standard. Brochure describes this tool which sells for $2.50.—Kimball Mfg. Co.
Circle No. E20 on reply card Section G

MOTOR TRUCKS
Colorful brochures show and give full data on truck line, from pick-ups to heavy capacity models.—Dodge Division of Chrysler Corp.
Circle No. E21 on reply card Section G

CARPENTERS TOOLS
Wide variety of saws, tools and files is covered in firm's 64-page manual. Shows tools in action; includes many helpful operational and maintenance tips.—Henry Disston Division, H. K. Porter Co., Inc.
Circle No. E22 on reply card Section G

RADIAL ARM SAW
Complete radial saw line is represented in six-page brochure featuring a comparative specification table. All units are pictured as well as the variety of operations they will do. Detailed information on exclusive features and accessories is also provided.—Delta Power Tool Div., Rockwell Mfg. Co.
Circle No. E22 on reply card Section G

STAPLING HAMMERS AND TACKERS
New brochure contains on-the-job illustrations of firm's full line of stapling tools for the building industry.—Bostitch.
Circle No. E24 on reply card Section G

SCAFFOLDING
A 24-page catalog, illustrating and describing 1957 line of scaffolding, trestles and related equipment. Includes material hoisting towers, concrete hoisting towers and buckets.—Bil-Jax, Inc.
Circle No. E25 on reply card Section G
We Sawed This TUFFIE BLADE in Half! See For Yourself Why EVEREADY’S NEW

By the Makers of EVEREADY BRIKSAWS and EVEREADY CONCRETE SAWS

BREAKAGE-RESISTANT
TUFFIE IS TUFFER! SAFER—and FASTER than ever
With New Side-wall Design

1. Friction-Free sides add hundreds of cutting edges to each blade.
2. Reinforced with tuff Fiber Glass.
   (Breakage-Resistant)
3. and 4. Extra Reinforcing around the Hub on both sides. You’re protected 3 ways when cutting with NEW TUFFIES.

CUT HARD OR SOFT MATERIALS
WET or DRY
with 3-PLY Protection Built Right in!

New Breakage-Resistant WET and DRY TUFFIES are SAFER than EVER. Specially Designed for LOW COST CUTTING of ALL Masonry Materials. ALL Eveready Blades—Xtra-Cut Abrasive, Ready-Cut Diamond and 3-Ply Reinforced Tuffie fit EVERY make or model of masonry saw.

WRITE FOR FREE BOOK

Your Local EVEREADY Dealer Has The New 3-PLY WET & DRY TUFFIES Ask For Them Today!

EVEREADY BRIKSAW CO.
1509 South Michigan Blvd.
CHICAGO 5, ILLINOIS

APRIL 1957
ANNOUNCING
the first major improvement in generator design in 25 years

REVOLUTIONARY
VERTICAL DESIGN

Spins like a top

Entire weight of generator armature supported by the tubular frame. Engine and main bearing turn the armature—do not support it. Generator spins best on vertical axis—lasts longer.

OLD DESIGN
Generator weight exerts loads on engine shaft and bearings. Causes more wear than in Thor's vertical mounting.

ALL NEW
THOR PORTABLE GENERATOR

Here's the brand new look in generator design—Thor's all-new 1500 watt portable engine-driven generator with vertical mounting.

This handy, compact power plant—available in AC and DC models—is the real answer to the builder or contractor who needs a rugged, portable power source. Check these features, then check your Thor distributor for a demonstration. Revolutionary design—vertical shaft engine. Light weight—95 lbs. Strong tubular framework protects unit, assures handling ease. Heavy duty automatic rewind starter—easily removable for repair. Off-on toggle-type switch. No shock danger. Drip-proof construction—keeps fuel and moisture from entering generator. No creep—stays put while running, yet slides easily when moved. Thor Power Tool Co., Prudential Plaza, Chicago 1, Ill.

THOR POWER TOOL COMPANY
CHICAGO
Branches in all principal cities

ANOTHER FIRST FROM THOR
Universal Electric Motor-in-Head Concrete Vibrator

Model CV2-10 has 10-foot hose and switch. Model CV2-20 has 20-foot hose and switch. Model CV2-210 has 10-foot hose on each end of switch. All models include 25-foot 3-conductor electric cable.
SURVEYING INSTRUMENTS
This new 26-page catalog shows firm's full line of surveying instruments including dumpy levels and a combination level-transit especially designed for builders. Gives full specifications and prices.—David White Instrument Co.

Circle No. E26 on reply card Section G

SPEED REDUCER
This brochure describes the new reversible speed reducer which makes any electric drill a power screwdriver. Includes prices, and illustrations of uses.—Supreme Products, Inc.

Circle No. E27 on reply card Section G

PUMPS & GENERATORS
This full line folder contains complete descriptions and specifications of all types of carryable contractor's pumps and electric generators.—Homelite Div., Textron Inc.

Circle No. E28 on reply card Section G

SECURITY EQUIPMENT
Brochures show insulated, fire resistive products including home and office vaults, safes; insulated files.—Meilink Steel Safe Co.

Circle No. E29 on reply card Section G

OFFICE EQUIPMENT
New folder describes "99 Printing Calculator" which records entire problem while listing only essential figures. Firm also is featuring "SAAR" machine—simplified accounts receivable for retailers.—Remington Rand Division, Sperry Rand Corp.

Circle No. E30 on reply card Section G

SWIMMING POOLS
This 52-page catalog and data book lists and illustrates a variety of swimming pool and waterfront supplies and equipment.—Modern Swimming Pool Co., Inc.

Circle No. E31 on reply card Section G

California contractor estimates:
**Time and labor costs cut 75% with the Remington Stud Driver**

Out on the California coast, "Research House" has taken shape. It's an experimental house sponsored by Associated Architectural Publications and the latest tools have been used to build it—such as the Remington Stud Driver.

Contractor Bert Pickney says, "The Stud Driver cuts time and labor costs around 75% in anchoring beam supports, partition sills and furring to concrete. It took us only half a day to install the sills—a 2-day job with bolts. No pre-drilling is necessary, and sills are set tight! I certainly recommend the Stud Driver to any contractor!"

YOU CAN SPEED ALL STUD FASTENINGS—light, medium and heavy-duty—with the Remington Stud Driver. It sets both ¾" and 5/8" diameter studs in steel or concrete—up to 6 studs a minute either size. The tool is cartridge-powered, portable, ready to work anywhere. Forty styles and lengths of Remington Studs to choose from. Get full details by mailing coupon.

Industrial Sales Division, Dept. AB-4
Remington Arms Company, Inc.
Bridgeport 2, Conn.

Please send me your free booklet which shows how I can speed the job and save with the Stud Driver.

Name: 
Position: 
Firm: 
Address: 
City: State:

Industrial Sales Division, Dept. AB-4
Remington Arms Company, Inc.
Bridgeport 2, Conn.

Please send me your free booklet which shows how I can speed the job and save with the Stud Driver.

Name: 
Position: 
Firm: 
Address: 
City: State:

Industrial Sales Division, Dept. AB-4
Remington Arms Company, Inc.
Bridgeport 2, Conn.

Please send me your free booklet which shows how I can speed the job and save with the Stud Driver.

Name: 
Position: 
Firm: 
Address: 
City: State:
The Yellow Pages emblem will be displayed by 104 leading advertisers in their April ads appearing in Better Homes and Gardens, Life, and Saturday Evening Post. It’s part of a continuing Yellow Pages emblem promotion. In these same magazines, Yellow Pages emblem ads feature the names of tie-in advertisers.

American Kitchens, Eagle-Picher, Formica, Libbey-Owens-Ford, Modernfold, Overhead Door, Thoro System Water Proofing are among the firms participating in this tie-in promotion.

Bell telephone companies promote the Yellow Pages emblem locally — in newspapers, television, billboards and other media. Many local businessmen also display the emblem.

What does this giant tie-in promotion mean to you?

More and more people will use the Yellow Pages to find who sells the products and services they see advertised.

Your own advertising in the Yellow Pages will be more effective than ever.
If you're plagued by costly down time and delays on the job due to saw maintenance and repair . . . it's time you switched to MILWAUKEE. Engineered in these heavy-duty units is sawing performance that sees you through the toughest schedules without pampering or fear of mechanical breakdown. MILWAUKEE Saws give you those many plus values in advanced engineering that pays off BIG in extra-long service, in lower operating costs and far less maintenance and repair costs.

See 'Em Demonstrated Today

Visit your MILWAUKEE Electric Tool Distributor and get a demonstration of these Better-Built Saws. Let him show you why MILWAUKEE is so rapidly becoming the favored choice among home builders everywhere.

... or write us direct for free bulletin SW3

MILWAUKEE ELECTRIC TOOL CORP.
5356 W. STATE ST.
IN CANADA: MATTHEW MOODY & SONS.
5356 W. STATE ST. MILWAUKEE 8, WIS.
740 Inspector St. MONTREAL

APRIL 1957

E33
One man can operate a lightweight Homelite Concrete Vibrator anywhere. Powerful, high-cycle, or 115 volt AC-DC motor built into stinger, quickly and easily places even the lowest slump concrete. Carryable, 33 lb., 115 volt, AC-DC flexible-shaft-driven model also available.

**BUILDER'S HAMMERS**

Bosch (Germany) Builder's Hammers are the fastest, most dependable, electric hammers available today. Both automatic power rotation for drilling and straight impact action for chiseling. Available with either high-cycle or 115 volt AC-DC motor. Lightweight, 14 lb., 115 volt AC-DC model also available.
Full Line of Carryable Construction Equipment Now Offered by Homelite

Carryable Diaphragm Pump . . . This self-priming, 120 pound diaphragm pump will handle water in the thickest sand, muck, or mud. Capacity: 5,000 g.p.h. Size: 3". Complete line of centrifugal pumps are also available in sizes from 1½" to 3".

Chain Saws For Every Job . . . Now you can choose from a full line of lightweight, powerful Homelite chain saws. From 3½ to 7 horsepower . . . 19 to 29 pounds. Brush cutting and clearing attachments are available to handle all your cutting jobs.

One-Man Electric Vibrator . . . It takes only one man to place concrete with powerful, Homelite high-cycle or universal electric concrete vibrators. Carryable Homelite generator provides power for high-cycle vibrators and 110 volt DC for all universal vibrators, tools and floodlights.

PIONEER GEN-E-MOTOR
PORTABLE POWER
When and Where You Need It!

- Have reliable electric power available at any location. Pioneer Generators can furnish power and lights to keep construction crews on the job. Hi-wattage, lightweight models can be hand carried . . . heavy duty slow-speed skid mounted plants for continuous operation. Over 40 models from 500 Watt to 12 KW continuous duty units.

Write today for FREE catalog
PIONEER GEN-E-MOTOR CORP. 
3657 West Dickens Ave., Chicago 39, Ill. 
Generators • Electric Generating Plants 
Power Lawn Mowers • Electric Portable Power Tools

HOMELITE
a division of Textron Inc.
PORT CHESTER, NEW YORK

APRIL 1957
in a Chevy cab, even the air is better!

...more evidence that Chevrolet Task-Force Trucks are engineered better and built better for bigger savings!

These cab features give you extra comfort and safety behind the wheel, extra savings on truck maintenance. And they’re proof that the most modern trucks for your money are Chevrolets!

The drawing “doodled” above shows how Chevy’s High-Level ventilation provides a comfortable interior...and the numbers in the big picture point out other advantages equally as good to have around you when you haul! They include:

1. A roof that's specially built for safer, more comfortable hauling. Sturdy all-steel construction adds to safety; roof's unique inner reinforcement insulates the overhead against heat.

2. A gleaming, durable baked enamel outside finish. Here’s the reason your Chevy’s exterior will resist wear better, look like new longer! This handsome finish is available in a wide variety of colors.

3. A Nu-Flex seat that beats the bumps! Deep-comfort coil springs, metered air shock damping and 3-way adjustment let you take it easy on tough jobs!

4. A cab that’s rustproofed to last! Doors and similar surfaces are rustproofed on the inside as well as on the outside by immersion.

5. Concealed Safety Steps for convenience. Inside each cab door, they give you firmer footing, make entering or leaving the cab easier and safer.

6. An undercoated floor, cowl side panels and fender flanges. Virtually all exposed surfaces on the underside of the cab are protected by an anti-rust coating.

7. A non-glare instrument panel to make driving safer! The textured finish on upper portion of Chevy’s instrument panel reduces blinding sun reflections, minimizes eyestrain.

8. A reliable 2-speed electric windshield wiper* on each side. Powered by electricity, their action remains constant under all conditions.

Such advantages as these (we’ve shown only a few) combine to make everything better in a 1957 Chevrolet truck! You’ll see for yourself when you visit your Chevrolet dealer’s...

CHEVROLET TASK-FORCE 57 TRUCKS

...biggest sellers because they’re the biggest savers!

*Standard in Series 5-6-7-8-9-10000 models.
ONE SHERMAN POWER DIGGER averaged 16\(\frac{2}{3}\) cubic yards of excavation an hour, for 8 hours, for a southwestern plumbing contractor. And this figure included time necessary for 24 location changes! The Sherman is used, primarily, for digging water, gas and electrical service lines for new homes.

Here are some reasons why this plumbing contractor gets more production from his Sherman: Fast operating cycle; high visibility around other utility lines; and top-notch bell-hole performance. And the local Ford Tractor dealer, having sold so many, is equipped and skilled to keep his machine on the job, working at peak output without costly downtime.

See your local Ford Tractor dealer TODAY for a demonstration or write for Bulletin No. 745.
Case History
#139
Ridgewood, New Jersey, Contractor Reports:

“CONCRETE FORM ERECTION COSTS CUT 47%
WITH ROCFORM SYSTEMS”

on the erection of ‘Nike Sites’
for the United States Government under the
direction of the Corps of Engineers, U.S. Army
we were able to reduce our erection
costs by 47% less than they formerly were
when we used a less advanced forming
method that employed snap-type, 4’ x 8’
panels, and 2 x 4, 2 x 6 wales, strong-
backs, etc. In addition to these savings,
Rocform Systems eliminate 90% of standard
bracing, strongbacking and all tie rod
and hardware expense.

These savings aid us materially in
obtaining new construction jobs.

Yours very truly.
CRETE CONCRETE CORPORATION
Peter J. Soldano

10 Huge Reasons Why ROCFORM SYSTEMS Can Cut Your Forming Costs

- All metal wales
- All hardware is guaranteed and replaced without charge when necessary
- No snap-type
- Eliminates 90% of standard bracing and strongbacking
- Reduces erection costs as much as 50%
- Gives up to 300 pours and more before reconditioning is required
- Patented clamping device eliminates nailing
- Extreme versatility makes Rocform panels easily adaptable to any concrete forming job
- Reusable, heavy-duty tie rods
- Extreme handling ease reduces labor costs to an absolute minimum

WRITE, WIRE or CALL NOW!

Get all the facts on Rocform’s Easy Payment Plan, Free Engineering Counsel and additional mechanical advantages which make Rocform Systems the world’s most advanced and economical concrete forming method.

Important Rocform Systems can be used with equal ease for Commercial, Industrial or Residential work.

UNRETOUCHED PHOTOGRAPH
Exterior view of Rocform Systems as used in the construction of “Nike Sites” at Springvalley, New York. Note total absence of bracing timbers, strongbacking and wood wales.

UNRETOUCHED PHOTOGRAPH
Above ground portion of “Nike Site” after Rocform panels have been removed. Note smoothness of walls, tight fit of windows and total absence of snaptys.
You cut costs with BOSTITCH stapling from underfloor to rooftop

**H4 Hammer lays asphalt shingles 4 times faster than old method**

Substantial cost savings are realized by the builder or roofer who installs asphalt shingles on new roofs with this efficient tool. One hand is free to position the shingle or maintain balance, other drives staple all the way home with one blow. Less staging required because H4 Hammer will reach more area from each working position. Staple legs spread inside wood, giving holding power with superiority proved in all kinds of weather.
Time is money—Bostitch stapling saves lots of it!

- Speed undercourses shingling with H2B Hammer's one-hand, one-blow operation. A foot longer reach!
- No helper needed to hold accordion-type insulation when installed with H2B Hammer. 160 staple load!
- Metal lath goes up faster, with less effort, when one hand positions lath on studs, other drives staple.
- Tacking foil insulation to face of studs is fast, neat and secure with the H2B Hammer.
- T5 Tacker installs cornerite quickly, easily and accurately. Tacks within 1/16" of corner.
- Installing roll or batt insulation in attics and other tight places is easier and faster with T5 Tacker.
- Saves precious hours, stops handling tacks when you fasten screening with T5. One hand does it.
- Install flanged ceiling tile in half the time with T5-8 Tacker and 9/16" or 1/2" staples. No dents in tile!

Bostitch, 824 Mechanic St., Westerly, R. I.

Please send me free bulletins and prices on

☐ Bostitch H4 Hammer
☐ Bostitch H2B Hammer
☐ Bostitch T5 Tacker
☐ Other Bostitch tools for fastening

Name ____________________________
Address __________________________
City __________________ Zone __ State ______________________

Fasten is better and faster with

BOSTITCH
STAPLERS AND STAPLES
All Onan Portable Electric Plants are completely Onan-built. Specially-designed, longer-life, short-stroke, Onan 4-cycle engines are direct-connected to Onan all-climate generators in compact, rugged units. Pressure lubrication, Stellite-faced exhaust valves, solid Stellite valve-seat inserts, and extra-large bearings are a few of many Onan quality features. Onan water-cooled plants are powered by heavy-duty industrial engines. All Onan plants are factory-tested, ready to run.

Call your Onan distributor listed in the yellow section of your phone book or write for specifications.
Only Ford Gives You All These Modern Features

NEW Heavy Duty V-8 engines now have 4-barrel carburetion standard. Fresh-air intake with new thermostatic control optional on 302 and 332 V-8 engines. Dual exhausts also available.

NEW styleside pickup bodies, standard at no extra cost. America's biggest pickup bodies! Built wider with all-steel rugged box section corner reinforcements and recessed taillights.

NEW riding comfort! A completely new chassis suspension, roomy cabs with increased visibility, greatly improved handling ease.

NEW power advances! New higher horsepower, new freer breathing, new higher compression ratios, new Super-Filter air cleaner. New advancements from camshafts to carburetors.

NEW Driverized cabs—completely new—stronger, roomier, smarter! New wider full-wrap windshield. New inboard cab step, new Hi-Dri ventilation, new easy-to-read instrument panel!

NEW chassis strength! New frames, up to 13% stronger. New sturdier axles! New higher capacity, easier riding front and rear springs!

Modern with a purpose—that's the Ford truck story for '57. Deep-down modern design to give high-efficiency performance that costs you less!

And, thanks to volume production, Ford trucks cost you less right from the start. Look at the new Ford Tilt Cabs—in addition to being America's most advanced line of Tilt Cabs, they're the lowest-priced!*

Ford's tandem axle models are built from the ground up for extra-heavy-duty work. They're rated to carry as much as 6,000 pounds more payload than other leading tandems with comparable specifications. And for real savings in the Light Duty field, consider Ford's new pickups with Styleside body—standard at no extra cost.
New '57 Ford
Modern through and through
...to cost you less!

New Tilt Cab line offers six series ranging from 18,000-lb. GVW to 60,000-lb. GCW. Now, all the advantages of "cab forward" compactness, plus bigger payload capacity. (Model C-800 illustrated.)

For durability, there's new toughness everywhere—in stronger frames, in sturdier axles, in higher-capacity springs...more reason than ever why Ford trucks last longer than any other leading make.

One look tells you—here's something new, really new, in trucks. For the full story on what they can do for you, contact your Ford Dealer today! He'll be glad to discuss it with you.

*Based on a comparison of factory-suggested list prices

FORD TRUCKS COST LESS
...LESS TO OWN...LESS TO RUN...LAST LONGER, TOO!
Now's the time to

trade-in

that

old saw!

Get an extra big trade-in allowance on a famous Porter-Cable quality saw!

Here's a wonderful opportunity to get any famous Porter-Cable saw illustrated here, at a saving! Trade-in your old saw and get a liberal allowance toward the purchase of a Porter-Cable saw that best fits your cutting needs and requirements. No matter what model you choose, you're getting Porter-Cable quality that can't be beaten for design, construction, versatility and solid value. Check the yellow pages of the telephone book and see these professional quality saws at your Porter-Cable dealer—or use coupon to get complete information. (Offer expires May 31, 1957.)

PORTER-CABLE MACHINE CO.
7014 N. Salina St., Syracuse 8, N. Y.

Please send me complete information on your Saw trade-in offer and name of my nearest dealer.

Name_________________________  Address_________________________

City_________________________  Zone_________________________
  State_________________________

SAVE $20 ON MODEL 528 SPEEDMATIC!
World's finest professional saw. Big capacity 8 1/2" blade with new telescoping guard, Kickproof Clutch and many more features. List price $135— with electric saw trade-in... $115.

SAVE $15 ON MODEL 521 SAW!
Famous Speedmatic saw with 7 1/2" blade, Kickproof Clutch, depth and bevel adjustments, and other professional features. List price $117.50— with electric saw trade-in... $102.50.

SAVE $15 ON MODEL 108 SAW!
Rugged 8 1/2" saw for the builder who needs extra speed and power on all cutting jobs. Features Kickproof Clutch. List price $99.50—with electric saw trade-in... $84.50.

SAVE $15 ON MODEL 157 SAW!
Heavy duty 7 1/4" saw with blade on left. Weighs only 13 lbs. Professional features throughout include exclusive Kickproof Clutch. List price $95.00—with electric saw trade-in... $80.00.

SAVE $5 ON MODEL 125 SAW!
A standard duty 6" saw featuring Kickproof Clutch, instant depth and bevel adjustments and a safety telescoping guard. List price $49.50— with any saw trade-in... $44.50.

In Canada: write Porter-Cable, Ltd., Box 5019, London, Ontario. Canadian prices slightly higher.

AMERICAN BUILDER
Meet the NEWEST MEMBER of the CLIPPER FAMILY

IT'S A New CLIPPER BOND
CD-7245-3

Here's a New Clipper Bonded Diamond Blade that will out-cut, out-last and out-perform any blade ever developed to cut all heavy and lightweight block, stone and basic refractories...a Diamond Blade with Clipper's New Bond that takes hold of diamonds and practically never lets go. That's why the Clipper Bonded Diamond Blade CD-7245-3, with a full 3/16" diamond rim depth, gives you blade life and performance far beyond the average so-called "tungsten-carbide" blades. Contractors who are using this new blade praise its economy and performance. In stock at your Nearest Clipper Branch for SAME DAY Shipment.

There's a CLIPPER BLADE for Every CUTTING NEED!
- You can choose from the World's Largest Selection and Widest Range of Diamond...Wet or Dry Break Resistant and Abrasive Blades for All Materials...Every Job...Any Saw. Available in Smallier Diameters for Power Hand Saws.

WIRE - WRITE - PHONE your Clipper Factory Trained Representative for SAME DAY SHIPMENT on the new CD-7245-3, or for Blade Recommendations for any materials. He can also arrange for your FREE TRIAL of a New 2 H.P. CLIPPER SUPER MASONRY SAW, the Greatest High-Production Masonry Saw ever built!

CLIPPER MANUFACTURING CO.
2808 S. Warwick • Kansas City 8, Mo. 310X

14" @ $209.00 each
18" @ $337.00 each

Send Free Literature on All Clipper Masonry Saws and Blades
Have a Clipper Factory Trained Representative call on me.

If You Don't Know Diamonds Know Your Manufacturer.

MR. CLIPPER

* Genuine Clipper Products are Sold Direct from Factory Branches in Principal Cities Coast to Coast. Consult your Phone Book or Mail Coupon for Same-Day Service.

Factories in England, France, Germany, Italy.
Carpenters! You're working men, not medicine men. Use a folding rule that doesn't need a doctor just when you need a rule. When you buy your next one, be precise . . . say Stanley, it's a good rule.

**NEW EXTENSION RULE**

Take this new Stanley "100 PLUS" No. X226 6 ft. Extension Rule for example. No comparable rule lasts longer. It never gets "rule arthritis." Its joints have been permanently lubricated. They're young and springy. They can take it. The black, deep-cut markings with their protective plastic finish wear four times longer than those on thin-skinned rules that may suffer from "tired ink." Buy No. X226, and make a note of how long it measures up for you. You'll agree that Stanley Rules are your best buy.

**Glide-O-Matic**

Have you seen the new Stanley Glide-O-Matic? This smooth acting tape rule locks blade in place, marks work with metal scribers and retracts automatically. The best in tape rules. 8, 10 and 12 ft. lengths. Try one yourself and see.

Stanley Tools, Division of The Stanley Works, New Britain, Connecticut

**Jiffy Sawhorse Brackets**

Now you can have a sawhorse when you want it . . . in a jiffy! All you need are Jiffy Brackets and 2x4s. Set up and knocked down instantly. Easy to move from job to job. Take little storage space when not in use. All-welded construction; stronger than 2x4s used for crossbar and legs.

Ask your hardware or building supply dealer for Jiffy Sawhorse Brackets; or, write us direct.

**PREFABRICATED HOMES**

Data on several of firm's models are given in attractive folder. Shown are renderings, floor plans, drawings.—Precision Homes Division, Acme Building Materials, Inc.

Circle No. E28 on reply card Section G

Attractive folder shows many of floor plans and elevations of new home line. Includes promotional material, financing information.—Thyer Mfg. Co.

Circle No. E39 on reply card Section G

Contractors like Bil-Jax steel scaffolding because one size cross brace fits all Bil-Jax end frames. There's no need to stock many sizes of braces. Your investment is kept to a minimum and your scaffold inventory made simple. And remember, there's a type of Bil-Jax scaffold to exactly fit your type of work.

OTHER BIL-JAX EQUIPMENT: Rollers · Maintenance Trestles · Hostling Towers · Metal Stairs & Catwalks · Putlogs · Ladders · Swing Stages · Shoring.

Sales and Rental outlets in principal cities

EXPORT REP.: MELVIN PINE & CO. 80 Broad St., New York 4, N. Y.

WEST COAST REP.: A. PALMER SCAFFOLD CO. 3928 San Fernando Road Glendale 4, California

Write for catalog.

BIL-JAX INC. Archbold, Ohio

**SAVE on scaffolding with the EXCLUSIVE BIL-JAX BRACE LOCK**

With Bil-Jax it is never necessary to completely remove wing nuts to attach or remove braces . . . a great time- and money saving feature!
SENSATIONAL PRICE LEADER!

NEW CASE 320
INDUSTRIAL BACKHOE-LOADER
...outperforms any rig in its class

Here, at last, is a heavy-duty earthmoving outfit...engineered and built as an INDUSTRIAL UNIT...yet actually priced lower than many smaller capacity diggers mounted on converted farm tractors.

How can Case do it? Simply because entire machine — tractor, backhoe, loader, even the engine — is built and factory-mounted by Case, with only one manufacturing profit. No “hidden extras”...no messy split-responsibility on warranty or service.

And look at the extra performance features you get with the Case 320! Heavy-duty industrial bumper and radiator guard...recessed headlights...husky forged steel front axle...extra-heavy sub-frame assembly...deluxe industrial operator's seat...effortless power steering...plus the famous Case shuttle transmission, which lets you go forward or back up at 27% faster reverse speeds — without shifting gears.

WRITE FOR FREE BOOKLET...

Find out how the Case 320’s many advanced backhoe and loader features can help you handle a wider range of jobs at lower cost. Send for free “tell-all” booklet — TODAY. Also, check your requirements for other Case industrial wheel and crawler models up to 100 hp.

Only $5,580

P.O.B. FACTORY

Taxe extra, where applicable. Price subject to change without notice.

Complete with backhoe, loader, power steering and shuttle transmission.

Complete machine engineered, built and fully warranted by J. I. Case Co. One responsibility...one service source for both tractor and equipment.

Hydraulic foot-controlled 180° swing
insures faster, easier precision digging. Machine reaches 18'7"...digs 12½' deep...has telescoping outriggers for stability.

Wide ½-cu. yd. loader-bucket
Provides 26° break-out angle, plus automatic power-leveling. Bucket also rolls forward 60° for smooth backfilling and grading.
even blindfolded.

you can't run a cut off course...

**Cummins MAXAW**

**MAXAW 7800**
100% ball and roller bearing construction! Only 7 1/4" saw with 8" cutting capacity... cuts 2 1/4" at 45° angle! $84.95

**MAXAW 757**
100% ball and roller bearing construction! 6 1/4" blade cuts 1 1/4" at 45° angle! $69.95

Prices slightly higher in Canada

**Cummins Portable Electric Tools**
5055 N. Lydell Ave., Milwaukee 17, Wis.

Please send me more information on Cummins MAXAWS!

Name
Address
City
Zone
State

© 1956 J.O.M.C. Made by John Oster Manufacturing Co.
DO A SKILLED HAND-TROWEL JOB SIX TIMES AS FAST

with a Master Midget Power Trowel

Like all good power tools, the new 24" Master Midget Power Trowel gets more work done faster, with less effort . . . and does a better job.

You're an expert with it in 15 minutes, can make float, sweat, smooth, or hard trowel finishes . . . on slabs, sidewalks, basements, doorways, porches, driveways or small rooms . . . with the same sweep finish that takes years to learn to do by hand.

The concrete sets up better than by hand. The surface is denser, harder and more accurate. You can work with coarser, dryer mixes at the start and waste less time between float and finish. The Master really "pays for itself in no time."

Most important of all, one man with a MASTER can "beat the set-up" on a load of concrete on the hottest, windiest days.

A midwestern contractor reports, "This new trowel is a natural. We can take it everywhere, even on small jobs. It will lick our concrete finishing problems."

Every concrete finisher can do better work and make more money with the 24" Master Midget. You, too.

This is the year to cut your costs. Order a Master Midget today. See your local Master Distributor or write directly to Master Vibrator Company, Dayton.

SEND FOR FOLDER

MASTER VIBRATOR COMPANY
452 Stanley Ave., Dayton 1, Ohio

Please send folder "Master Midget Power Trowel" showing the details of this time-saving trowel.

Name ______________________ Phone ______
Firm ______________________
Street ______________________
City ______________________

APRIL 1957
SAVE MAN HOURS WITH THE MOBILE TRUCK MOUNTED

**Chief BACKHOE**

* Digs 14'-15' Deep * Exclusive 'Push-Pull' Power * Sold as a Complete Unit or Mounted on Your Truck * Also Available with Warrior Backhoe

Biggest of the backhoes. "Push-Pull" cylinders operate synchronously — provide tremendous digging force. Three 120° quadrants of operation, adjustable from operator's position.

**SHAWNEE LOADMASTER WITH CHIEF BACKHOE**

A terrific team! Designed for the big jobs, the Loadmaster lifts approximately 2 tons to 9 feet dumping height. Three inch double acting main cylinders.

**SHAWNEE SPECIAL HEAVY-DUTY LOADER with WARRIOR BACKHOE**

Ideal companion to the Warrior — a slightly smaller version of the Chief — the Special lifts 2000 lbs. to 9 ft. dumping height. Two pin mounting enables removing or mounting on tractor in 5 minutes.

Need a Small Line Trencher?

SHAWNEE DITCH-A-LINE

Digs 20° deep — 2° or 3° wide. Six horsepower engine —crawling track. Designed to operate in all types of soil ranging from hard-packed California to Florida coral. Hydraulically driven—reversible.

For Additional Information, write SHAWNEE MANUFACTURING COMPANY, INC. 1947-J N. Topeka Ave. • Topeka, Kansas

**MULLER MACHINES cut Contractors' Costs**

**PLASTER AND MORTAR MIXERS** — 5 sizes 2 to 10 Cu. Ft. Electric or Gasoline, Power throw-out on smaller models, disc clutch on larger.

**CONCRETE MIXERS TILTING TYPE** — 3, 3.5, and 6 Cu. Ft. Electric or Gasoline, Tilting Bearings.

Muller Machines lead in low prices and low operating and maintenance costs. These result from the use of the best materials and components, simplified design and efficient manufacturing methods, based on 50 years of specialized experience.

Ask for prices and names of local dealer.

**MULLER MACHINERY COMPANY, INC.**

Metuchen 4, N.J. Cable Address: MULMIX

**NOW! The Revolutionary New**

**HORTON UNDERBENCH CUT-OFF SAW**

Embodying the remarkable Quick-Set Turntable design to give you—

- Full Multi-Angle Cut-Off Range
- Instant Positioning For Any Cut
- Rapid Changing To Regular Table-Type Rip Saw

- The table turns!
- The blade tilts!
- The blade travels!
- and every motion is made beneath the working surface. Nothing overhead to obstruct vision or interfere with safe operation.

The Horton Universal Underbench Saw is based on the newly-invented "Quick-Set Turntable" design, resulting in amazing improvements in accuracy and drastic reductions in cutting time.

Now, one saw performs like a bend saw, portable saw, and radial saw combined. Does virtually every cutting job in home construction ... faster, better, easier. Switches from rip to to cut-off in an incredible 4½ seconds. Rip guide adjusts precisely in 4 seconds. Blade tilts to desired angle in 3-½/10 seconds.

Makes perfect miters, compound cuts. Saws 4" x 8" plywood, asbestos siding, aluminum, etc. Moveable through doorways in 1501 of work. Reduces tool idleness; cuts off waste and inefficiency; stimulates craftsmanship. Net result: a tremendous increase in labor savings and building profits!

If you make your living with wood, you'll make a better living with a Horton Universal Underbench Saw. Get the complete Horton story today! See your tool dealer, or send now for Free Illustrated Brochure.

**HORTON MANUFACTURING CO., INC.**

P. O. BOX 747-B GOLDTHWAITE, TEXAS

DEALERS: Write For Details On Dealerships
4-wheel drive supplies the extra traction to transport men, equipment, tools through mud and loose fill, in all kinds of weather. The Universal 'Jeep' carries up to 7 workers, up to half a ton of tools or supplies...pulls heavy trailer loads of materials.

How 4-Wheel-Drive 'Jeep' vehicles save you time and money

Only 4-wheel drive 'Jeep' vehicles spread their cost over so many jobs. They transport men, tools and equipment; haul trailers; and supply mobile power for welders...compressors...trenchers...and other equipment.

'Jeep' vehicles travel at highway speeds in conventional 2-wheel drive. When your work calls for travel over unpaved roads, through mud, sand, or loose fill, the extra traction of their 4-wheel drive takes you where other vehicles can't go.

Operating economy, long life, low maintenance costs and high resale value make 'Jeep' vehicles your best investment. Your Willys dealer can show you why. See him today, or write for information.

The 'Jeep' family of 4-Wheel-Drive vehicles

WILLYS...makers of the world's most useful vehicles

WILLYS MOTORS, INC., TOLEDO 1, OHIO
CAULKING GUN LOADER

**SAVES 4 WAYS**

In time, money, material and labor. This manually operated loader fills caulking guns with caulking, glazing, painting, sealants, etc. compounds in seconds! Will load one-pound gun in two strokes. Saves over 30% in materials and 75% of time.

*Write For Literature*

**FORCE-FLO, Inc.**
P. O. Box 2442, East Cleveland 12, Ohio
MU 1-9200

COST CUTTER

**LION UNIVERSAL TRIMMER**

Accurate, razor-like cut any way of grain. Quick adjustments to 45 degrees or 90 degrees. Miter, bevels, squares, chamfers—hundreds of uses! A time saver on every job.

*Write For Full Information*

**POOTATUCK CORP.**
50 Old Stratford Rd.
Shelton, Conn.

LEVELALL

"better than any transit!"

"When it comes to accuracy, the Levelall is better than any transit,"...writes Mr. Richard B. Otto.

**LEVELALL** is a 75' transparent plastic tube with shut-off valves, mounting brackets and filled with a special anti-freeze liquid...a precision leveling instrument for only $12.95. With it, one man can do the work of two men and a transit.

Send today for your *FREE* copy of "On the Level," a booklet that tells and shows how to use the Levelall.

**LEVELALL, 83D Webster St., Rockland, Mass.**

Please send free booklet, "On the Level." [Mail me 75' Deluxe LEVELALL @$12.95] [Regular 50' model at $9.95] [Ship postpaid full price enclosed].

Name ____________________________
Street __________________________
City ____________ State ____________

WRITE FOR NEW FOLDER
KOHLER ELECTRIC PLANTS

Operate power tools on the job at low cost

Model 2.5M25, 2500 watts, 115 volt AC. Manual starting.

A sure way to increase profits is to use Kohler Electric Plants for time-saving, low-cost power where the work is done. Portable, light-weight 2500 watt model operates drills, saws, planers, grinders, vibrators, pipe threaders and cutters. Has 4 receptacles, carrying frame. Two-wheel, rubber-tired hand cart available. Other sizes 500 watts to 50 KW—including stand-by models for emergency use when central station service is cut off. Write for folder 1-E.

KOHLER OF KOLHER

EFCO FORMS for house foundations

EFCO Steel Forms for concrete construction are adaptable to wide use by their owners, including construction of house foundations. Other advantages:

- Lifetime steel faces should never need to be replaced.
- Easy to handle and assemble.
- Saves time, material, money.
- Low original cost.

Other forms from Economy are available on a rental basis. Write nearest office for catalog.

Economy Forms Corp.
DES MOINES, IOWA

EFCO FORMS
for house foundations

How to Build Better Walls

It's easy . . . use Sure-Grip concrete accessories.

When you use Sure-Grip Snap-In form ties, your walls line up better, don't leak at tie points and are easier to point. They look better too, because there aren't any big, loose cone patches staring you in the eye.

Sure-Grip's patented Snap-In tie which has special flat pieces or clevises fastened to the rod does the job. These clevises keep the tie from turning and breaking the bond with the concrete. Result . . . no leaking, positive snapping and a lot of time saved. Try Sure-Grip Snap-In form ties on your next job and see how much better they are than other ties or twisted wire.

Sure-Grip Anchors & Anchor Slot . . . the surest and fastest way to fasten brick, stone, tile or terra cotta to concrete walls, columns and beams. Just nail the anchor slot to the forms. The patented double nailing feature supports the sides of the slot and keeps them from caving in when pouring. You don't have to grind anchors to make them fit. Sure-Grip anchor slot is made from rust resisting material; galvanized steel, Zinaloy, copper, etc., and is available in lengths from 6" to 10' either with or without the slot filler.

We also make a full line of stone, brick and furring anchors for every application. FREE — Mail the coupon below for our 48 page catalog of concrete accessories and your nearest Sure-Grip dealer's name.

THE DAYTON SURE-GRIP & SHORE CO.
503 Kercher Street
Miamisburg, Ohio

Economy Forms Corp.
535 Stonewall St., S.W., Atlanta 3, Ga.
STOW ANNOUNCES NEW
ROTO-TROWEL

"This does a smoother job of finishing, than any small size machine I’ve ever used."

That is what the contractor in the above photograph said about his STOW G-29 Roto-Trowel. This smooth trowelling is just one of the reasons why the G-29 is becoming so popular throughout the country for small jobs like basement floors, garage floors, and sidewalks. Contractors find it easy to work with in small areas, since it is only 29 inches in diameter, and weighs only 70 lbs.

Within one-sixth of a second, the unique manual clutch shown above stops the trowel blades, leaves the engine running. This makes the machine safer to work with, and much easier to start since full throttle can be used if necessary.

Send in this coupon for more information on the G-24 and G-29 Roto-Trowels. We’ll send you a bulletin with on-the-job photos and specifications. Or, if you prefer, check the yellow pages of your phone book under “CONCRETE VIBRATORS”. For complete information on Vibrators, Saws, Auto-Trowels, Concrete Grinders, write for Stow Cat. 560.

Now Manufacturing Co.
142 Shear St., Binghamton, N.Y.

SYNTRON ELECTRIC HAMMER DRILLS

SYNTRON Electric Hammer Drills are designed for fast, easy drilling in concrete. SYNTRON’S Exclusive Automatic rotation of drill bits provides ease of handling in any drilling position. Constructed for long, dependable service, employing the electromagnetic principle, they will maintain their efficiency with a minimum of maintenance. Available in sizes to meet every drilling need. Capacities from \( \frac{5}{6}'' \) to 2''. Also available SYNTRON Electric Hammers ideal for shipping, cutting, scaling, etc.

SYNTRON COMPANY
518 Lexington Avenue
Homer City, Penna.

Just out!

NEW David White CATALOG

First really new catalog in the instrument field. Contains complete, up-to-the-minute facts about the entire David White line of precision instruments...as well as news about some brand new David White products. Fill out the coupon—and mail today.

WINCO Gives You NEW ECONOMY IN PORTABLE ELECTRIC POWER WITH THE EXCLUSIVE NEW Automatic CONSERV-er IDLING CONTROL Extends Engine Life Reduces Fuel Consumption Lowers Maintenance Cost

WINCO MODEL 2500 - 1600 - 1400
2500 watts, direct drive. 115 volts, 60 cycle A.C. Lightweight, Carrying Cradle optional.

Plant automatically idles until load of 75 watts or more is applied. Automatic CONSERV-er reduces engine to idling speed when tool is turned off, revs up to operating speed when tool is turned on—all automatically.

Get all the facts on this money-saving Winco feature. Write Dept. AB 47

WINCHARGER CORPORATION
SIOUX CITY, IOWA

AMERICAN BUILDER
Section F Management & Buying Reference-Prefabrication

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Business Forms & Equipment
Estimating Books & Services
General Mathematics

Insurance
Office Supplies & Equipment
Plan Services & Books
Prefabricated Homes
Swimming Pools & Equipment

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APRIL 1957
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## AMORTIZATION OF 5% LOANS

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<thead>
<tr>
<th>AMOUNT OF LOAN</th>
<th>MONTHLY PAYMENTS OF 5% LOANS</th>
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<tbody>
<tr>
<td>$900</td>
<td>39.49 80.64</td>
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<tr>
<td>$1,000</td>
<td>43.88 87.75</td>
</tr>
<tr>
<td>$2,000</td>
<td>87.75 113.162</td>
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<td>$3,000</td>
<td>113.162 193.08</td>
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<td>$4,000</td>
<td>193.08 275.77</td>
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<td>$5,000</td>
<td>275.77 350.98</td>
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<td>350.98 434.85</td>
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<tr>
<td>$7,000</td>
<td>434.85 519.74</td>
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<tr>
<td>$8,000</td>
<td>519.74 604.62</td>
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<tr>
<td>$9,000</td>
<td>604.62 690.49</td>
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<tr>
<td>$10,000</td>
<td>690.49 776.36</td>
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## AMORTIZATION OF 4½% LOANS

<table>
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<tr>
<th>AMOUNT OF LOAN</th>
<th>MONTHLY PAYMENTS OF 4½% LOANS</th>
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<tbody>
<tr>
<td>$900</td>
<td>29.98 59.95</td>
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<tr>
<td>$1,000</td>
<td>59.95 99.92</td>
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<tr>
<td>$2,000</td>
<td>99.92 199.84</td>
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<td>$3,000</td>
<td>199.84 299.77</td>
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<td>$4,000</td>
<td>299.77 399.70</td>
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<td>399.70 499.63</td>
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<td>$6,000</td>
<td>499.63 599.56</td>
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<td>$7,000</td>
<td>599.56 699.49</td>
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<td>$8,000</td>
<td>699.49 799.42</td>
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<tr>
<td>$9,000</td>
<td>799.42 899.35</td>
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<tr>
<td>$10,000</td>
<td>899.35 999.28</td>
</tr>
</tbody>
</table>

---

**Note:** AMERICAN BUILDER
## MINIMUM DESIGN DEAD LOADS

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>POUNDS PER CUBIC FOOT</th>
<th>MATERIAL</th>
<th>POUNDS PER CUBIC FOOT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ROOF COVERINGS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asbestos shingles</td>
<td>3</td>
<td>4-in. solid plaster</td>
<td>32</td>
</tr>
<tr>
<td>Asphalt shingles</td>
<td>3 to 4</td>
<td>4-in. hollow plaster</td>
<td>22</td>
</tr>
<tr>
<td>Wood shingles</td>
<td>2</td>
<td>4-in. concrete block, heavy aggregate</td>
<td>30</td>
</tr>
<tr>
<td>Clay tile, spanish type</td>
<td>8 to 10</td>
<td>4-in. concrete block, light aggregate</td>
<td>20</td>
</tr>
<tr>
<td>Clay tile, flat type shingles</td>
<td>15</td>
<td>6-in. concrete block, heavy aggregate</td>
<td>42</td>
</tr>
<tr>
<td>Cement tile</td>
<td>16</td>
<td>6-in. concrete block, light aggregate</td>
<td>28</td>
</tr>
<tr>
<td>2&quot; book tile</td>
<td>12</td>
<td>8-in. concrete block, heavy aggregate</td>
<td>55</td>
</tr>
<tr>
<td>3&quot; book tile</td>
<td>20</td>
<td>8-in. concrete block, light aggregate</td>
<td>38</td>
</tr>
<tr>
<td>Corrugated iron, No. 20 gauge</td>
<td>3 to 4</td>
<td>12-in. concrete block, heavy aggregate</td>
<td>85</td>
</tr>
<tr>
<td>Corrugated asbestos</td>
<td>3 to 4</td>
<td>12-in. concrete block, light aggregate</td>
<td>55</td>
</tr>
<tr>
<td>Sheet-metal roofing</td>
<td>2</td>
<td>Wood studs, 2 x 4, unplastered</td>
<td></td>
</tr>
<tr>
<td>3-ply built-up roofing, tar and gravel</td>
<td>4</td>
<td>Wood studs, 2 x 4, plastered one side</td>
<td>12</td>
</tr>
<tr>
<td>4-ply built-up roofing, tar and gravel</td>
<td>5</td>
<td>Wood studs, 2 x 4, plastered two sides</td>
<td>20</td>
</tr>
<tr>
<td>5-ply built-up roofing, tar and gravel</td>
<td>6</td>
<td>1½-in. split furring tile</td>
<td>8</td>
</tr>
<tr>
<td>3-ply composition roll roofing</td>
<td>1</td>
<td>2-in. split furring tile</td>
<td>8½</td>
</tr>
<tr>
<td>Slate roofing, ¼&quot; thickness</td>
<td>9</td>
<td>FLOORS &amp; FLOORING</td>
<td></td>
</tr>
<tr>
<td>Slate roofing, ⅛&quot; thickness</td>
<td>14</td>
<td>Concrete, reinforced, stone, per inch</td>
<td>12½</td>
</tr>
<tr>
<td>Skylights, including frame and glass</td>
<td>10</td>
<td>Concrete, reinforced, cinder, per inch</td>
<td>9½</td>
</tr>
<tr>
<td>Wood sheathing, per 1&quot; thickness</td>
<td>3</td>
<td>Concrete, reinforced, light-weight aggregate, per inch</td>
<td>9</td>
</tr>
<tr>
<td><strong>WALLS</strong></td>
<td></td>
<td>Concrete, plain, stone or gravel, per inch</td>
<td>12</td>
</tr>
<tr>
<td>4-in. clay brick, medium absorption</td>
<td>39</td>
<td>Concrete, plain, cinder, per inch</td>
<td>9</td>
</tr>
<tr>
<td>4-in. sand-lime brick</td>
<td>38</td>
<td>Concrete, plain, light-weight aggregate, per inch</td>
<td>8½</td>
</tr>
<tr>
<td>4-in. concrete brick, heavy aggregate</td>
<td>46</td>
<td>Marble, including setting bed</td>
<td>30</td>
</tr>
<tr>
<td>4-in. concrete brick, light aggregate</td>
<td>33</td>
<td>Linoleum</td>
<td>4</td>
</tr>
<tr>
<td>8-in. clay brick, medium absorption</td>
<td>79</td>
<td>Terrazzo, ⅛ inch thick</td>
<td>18</td>
</tr>
<tr>
<td>8-in. sand-lime brick</td>
<td>74</td>
<td>Hardwood flooring, ⅛&quot; thick</td>
<td>4</td>
</tr>
<tr>
<td>8-in. concrete brick, heavy aggregate</td>
<td>89</td>
<td>Hardwood flooring, ⅛&quot; thick</td>
<td>2</td>
</tr>
<tr>
<td>8-in. concrete brick, light aggregate</td>
<td>68</td>
<td>Softwood flooring, ⅛&quot; thick</td>
<td>3</td>
</tr>
<tr>
<td>12½-in. clay brick, medium absorption</td>
<td>115</td>
<td><strong>MISCELLANEOUS MATERIALS</strong></td>
<td></td>
</tr>
<tr>
<td>12½-in. sand-lime brick</td>
<td>105</td>
<td>Cast-stone</td>
<td>144</td>
</tr>
<tr>
<td>12½-in. concrete brick, heavy aggregate</td>
<td>130</td>
<td>Cinder fill</td>
<td>57</td>
</tr>
<tr>
<td>12½-in. concrete brick, light aggregate</td>
<td>98</td>
<td>Concrete, stone or gravel</td>
<td>144</td>
</tr>
<tr>
<td>17-in. clay brick, medium absorption</td>
<td>155</td>
<td>Concrete, slag aggregate</td>
<td>132</td>
</tr>
<tr>
<td>4-in. brick, 4-in. load-bearing structural-clay-tile backing</td>
<td>60</td>
<td>Concrete, cinder aggregate</td>
<td>108</td>
</tr>
<tr>
<td>4-in. brick, 8-in. load-bearing structural-clay-tile backing</td>
<td>75</td>
<td>Concrete, Haydite aggregate</td>
<td>90</td>
</tr>
<tr>
<td>8-in. load-bearing structural clay tile</td>
<td>42</td>
<td>Concrete, expanded slag aggregate</td>
<td>100</td>
</tr>
<tr>
<td>12-in. load-bearing structural clay tile</td>
<td>58</td>
<td>Concrete, reinforced, stone or gravel</td>
<td>150</td>
</tr>
<tr>
<td>8-in. concrete block, heavy aggregate</td>
<td>55</td>
<td>Concrete, reinforced, slag</td>
<td>138</td>
</tr>
<tr>
<td>8-in. concrete block, light aggregate</td>
<td>35</td>
<td>Concrete, reinforced, cinder</td>
<td>111</td>
</tr>
<tr>
<td>12-in. concrete block, heavy aggregate</td>
<td>85</td>
<td>Masonry, brick, hard</td>
<td>130</td>
</tr>
<tr>
<td>12-in. concrete block, light aggregate</td>
<td>85</td>
<td>Masonry, brick, medium</td>
<td>115</td>
</tr>
<tr>
<td>2-in. furring tile, one side of masonry wall, add to above figures</td>
<td>12</td>
<td>Masonry, brick, soft</td>
<td>100</td>
</tr>
<tr>
<td><strong>PARTITIONS</strong></td>
<td></td>
<td>Masonry, ashlar, granite</td>
<td>165</td>
</tr>
<tr>
<td>3-in. clay tile</td>
<td>17</td>
<td>Masonry, ashlar, limestone, crystalline</td>
<td>135</td>
</tr>
<tr>
<td>4-in. clay tile</td>
<td>18</td>
<td>Marble</td>
<td>173</td>
</tr>
<tr>
<td>6-in. clay tile</td>
<td>28</td>
<td>Sandstone</td>
<td>144</td>
</tr>
<tr>
<td>8-in. clay tile</td>
<td>34</td>
<td>Timber, cypress, southern</td>
<td>32</td>
</tr>
<tr>
<td>2-in. gypsum block</td>
<td>9½</td>
<td>Timber, fir, douglas</td>
<td>34</td>
</tr>
<tr>
<td>3-in. gypsum block</td>
<td>10½</td>
<td>Timber, oak, red or white</td>
<td>45</td>
</tr>
<tr>
<td>4-in. gypsum block</td>
<td>12½</td>
<td>Timber, pine, southern yellow</td>
<td>39</td>
</tr>
<tr>
<td>6-in. gypsum block</td>
<td>18½</td>
<td>Timber, redwood</td>
<td>28</td>
</tr>
<tr>
<td>2-in. solid plaster</td>
<td>20</td>
<td>Timber, spruce, red, white or sitka</td>
<td>28</td>
</tr>
</tbody>
</table>

APRIL 1957
ARCHITECTURAL SYMBOLS

Symbols marked with an Asterisk (*) are A.S.A. and A.S.M.E. Standards. All others are recommended symbols which should be incorporated in a Legend on each sheet when applicable. Specific kinds of Metals, Stone, etc., should not be indicated as these are the province of the specifications.

### Architectural Symbols in Plan or Section

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Rubble</td>
<td>Natural Rubble</td>
</tr>
<tr>
<td>Natural Ashlar</td>
<td>Natural Ashlar</td>
</tr>
<tr>
<td>Cast Stone</td>
<td>Cast Stone</td>
</tr>
<tr>
<td>Marble</td>
<td>Marble</td>
</tr>
<tr>
<td>Slate</td>
<td>Slate</td>
</tr>
<tr>
<td>Face Brick</td>
<td>Face Brick</td>
</tr>
<tr>
<td>Common Brick</td>
<td>Common Brick</td>
</tr>
<tr>
<td>Fire Brick</td>
<td>Fire Brick</td>
</tr>
<tr>
<td>Finish Wood with Grain</td>
<td>Finish Wood with Grain</td>
</tr>
<tr>
<td>Finish Wood End Grain</td>
<td>Finish Wood End Grain</td>
</tr>
<tr>
<td>Stone Concrete</td>
<td>Stone Concrete</td>
</tr>
<tr>
<td>Cinder Concrete</td>
<td>Cinder Concrete</td>
</tr>
<tr>
<td>Concrete Block</td>
<td>Concrete Block</td>
</tr>
<tr>
<td>Gypsum</td>
<td>Gypsum</td>
</tr>
<tr>
<td>Rough Wood</td>
<td>Rough Wood</td>
</tr>
<tr>
<td>Cinder Concrete</td>
<td>Cinder Concrete</td>
</tr>
<tr>
<td>Tile As Above Small Scale</td>
<td>Tile As Above Small Scale</td>
</tr>
<tr>
<td>Glass Small Scale</td>
<td>Glass Small Scale</td>
</tr>
<tr>
<td>Glass Large Scale</td>
<td>Glass Large Scale</td>
</tr>
<tr>
<td>Terrazzo</td>
<td>Terrazzo</td>
</tr>
<tr>
<td>Sand, Plaster or Cement Finish</td>
<td>Sand, Plaster or Cement Finish</td>
</tr>
<tr>
<td>Insulation-Loose</td>
<td>Insulation-Loose</td>
</tr>
<tr>
<td>Insulation-Solid</td>
<td>Insulation-Solid</td>
</tr>
<tr>
<td>Cork (Linoleum)</td>
<td>Cork (Linoleum)</td>
</tr>
<tr>
<td>Earth</td>
<td>Earth</td>
</tr>
<tr>
<td>Rock</td>
<td>Rock</td>
</tr>
<tr>
<td>Un glazed Bearing or Non-bearing</td>
<td>Un glazed Bearing or Non-bearing</td>
</tr>
<tr>
<td>Glazed Face</td>
<td>Glazed Face</td>
</tr>
<tr>
<td>Architectural</td>
<td>Architectural</td>
</tr>
<tr>
<td>Brick-Cotta</td>
<td>Brick-Cotta</td>
</tr>
<tr>
<td>Ceramic Faience or Encaustic Tile</td>
<td>Ceramic Faience or Encaustic Tile</td>
</tr>
</tbody>
</table>

### Architectural Symbols in Elevations

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rubble</td>
<td>Rubble</td>
</tr>
<tr>
<td>Ashlar Cast or Natural</td>
<td>Ashlar Cast or Natural</td>
</tr>
<tr>
<td>Marble</td>
<td>Marble</td>
</tr>
<tr>
<td>Brick</td>
<td>Brick</td>
</tr>
<tr>
<td>Wood Large Pieces</td>
<td>Wood Large Pieces</td>
</tr>
<tr>
<td>Metal</td>
<td>Metal</td>
</tr>
<tr>
<td>Glass</td>
<td>Glass</td>
</tr>
<tr>
<td>Sand, Plaster or Cement Finish</td>
<td>Sand, Plaster or Cement Finish</td>
</tr>
<tr>
<td>Terra Cotta</td>
<td>Terra Cotta</td>
</tr>
<tr>
<td>Shingles or Siding</td>
<td>Shingles or Siding</td>
</tr>
</tbody>
</table>

### Metal Symbols in Plan or Section

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Asbestos</td>
<td>Asbestos</td>
</tr>
<tr>
<td>Babbit</td>
<td>Babbit</td>
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<tr>
<td>Brass</td>
<td>Brass</td>
</tr>
<tr>
<td>Bronze</td>
<td>Bronze</td>
</tr>
<tr>
<td>Copper</td>
<td>Copper</td>
</tr>
<tr>
<td>Cast Iron</td>
<td>Cast Iron</td>
</tr>
<tr>
<td>Malleable Iron</td>
<td>Malleable Iron</td>
</tr>
<tr>
<td>Structural Iron</td>
<td>Structural Iron</td>
</tr>
<tr>
<td>Wrought Iron</td>
<td>Wrought Iron</td>
</tr>
<tr>
<td>Lead</td>
<td>Lead</td>
</tr>
</tbody>
</table>

April 1957
NEW INLAND 700 SERIES

TO SELL FOR $9,000

ECONOMY LINE—MODEL 703 A

CHOOSE GARAGE OR CARPORT MODEL
—full basement, wood floor and crawl space, or slab model. 90 different elevations for variety in project building.

END-TO-THE-STREET
or front to the street construction. Few houses can be attractively built with the end facing the street. Inland has designed special end elevation options to whip the problem of building on narrow or odd-shaped lots.

INDOOR-OUTDOOR LIVING
—attractive patio with many possible enclosure designs for privacy. Easy access from patio to either kitchen or bath.

WIDE VARIETY OF EXTERIOR TRIM
—choose from brick, stone, horizontal siding, asbestos board and batten or double-course cedar shakes. Give each house an individual look.

PRE-PLANNED COLORS
—select from a wide range of harmonizing colors, including modern pastels.

SPACIOUS, OPEN PLANNING
—a house with 1144 square feet of living space. Glass wall and Modernfold doors for added spaciousness, 3 bedrooms, 1 ½ baths and separate dining room.
DELUXE LINE—MODEL 715 A-G

*Less lot, depending on local area costs.

SWEDISH-MODERN FIREPLACE
provides striking center of interest in living room—the luxury touch that makes a strong selling feature.

KITCHEN BUILT-INS
include Youngstown steel cabinets with birch doors, Tappan oven and countertop range, sink-dishwasher combination. Westinghouse washer-drier in bathroom alcove.

CONSTRUCTION MONEY IS AVAILABLE through the Inland Mortgage Corporation, if you qualify. Assistance in arranging permanent financing.

FREE ILLUSTRATED BOOKLET gives full details on the 700 series. Write on your letterhead for your copy now!

Inland Homes Corporation

BOX 915, PIQUA, OHIO—PHONE 3880
BOX 137, HANOVER, PENNA.—PHONE 2-7279
Prefabricated Home Manufacturers

This section comprises a comprehensive directory of companies engaged in the manufacturing of Prefabricated Homes. Every effort has been made to include all manufacturers who distribute through builders or other qualified dealers.

Information on each company has been compiled from the latest available at the time this issue went to press and any omission is unintentional. Every attempt has been made to standardize the data on each manufacturer giving only that information which is of interest to the builder, or prospective buyer, of prefabricated homes. Manufacturers are listed alphabetically by States to make it easier for the reader to find the plant in his locality. Those companies who have plants in other States are also listed with a cross reference since in most cases the shipping radius given is from manufacturing plants or warehouses.

For further information and literature direct all inquiries to the contact given at the address of the main plant.

This symbol indicates the manufacturer is a member of the Prefabricated Home Manufacturers' Institute, an association whose purpose is to establish high quality standards for the industry. For general information on the subject of prefabrication write: Prefabricated Home Manufacturers' Institute, 908 20th St., N. W., Washington 6, D. C.

ALABAMA

LUMBER FABRICATORS INC.
1725 Gault Ave., S., Fort Payne, Ala.
Contact: Sales Mgr.
Distribution Radius: 500 miles
No. Basic Plans: 35; total of 115 models
Package Price: $3,500 to $8,000 f.o.b.
Sales Policy: Sales representatives and builder-dealers
Minimum Order: 1 per month
Delivery Time: Approximately 14 days from receipt of order
Financing: 2% net 15 days, C.O.D. and special participation
Description: Package includes all exterior wall panels, interior wall partitions, doors, windows and exterior trim as well as roofing. Floor and roof framing are cut to size. Wall panels range from 16' to 12' in length.
Literature: Single and key sheets available

THE MOBILEHOME CORP.
Box 3306, Bakersfield, Calif.
Contact: Hugh Curran, Pres.
Distribution Radius: 100 miles
No. Basic Plans: 32
Package Price: $5,000 to $50,000 f.o.b.
Delivery Time: 30 to 60 days from receipt of order
Description: Constructed complete on assembly line then moved to permanent site, or panel construction to be erected at site. Will put in temporary plant for contract of 100 dwellings, minimum.

WESTWAY HOMES, INC.
4300 El Camino Real, Los Altos, Calif.
Contact: Don Tanner, V. P. Sales
No. Basic Plans: 10; 50 models
Package Price: $2,350 to $5,000 f.o.b.
Sales Policy: Builders, franchised dealers, individuals
Minimum Order: 5 to 10 per year
Delivery Time: 14 days from receipt of order
Financing: Cash 2%; Net C.O.D.
Description: Wall panels of conventional construction with exterior siding and preglazed sash installed. Various wall finishes available; interior partitions fully framed; precut rafters and trim. Roof deck, prehung doors, kitchen cabinets and built-in appliances. All rough and finish hardware to complete house.
Literature: Brochure of plans, prices and specifications

CALIFORNIA

CALIFORNIA MODULAR HOMES, INC.
3808 Astoria, Del Paso Hgts, Calif.
Contact: E. L. Schutt, Pres.
Distribution Radius: 500 miles
No. Basic Plans: 12; 25 models
Package Price: $1,475 to $3,795 f.o.b.
Sales Policy: Builders, dealers, individuals
Minimum Order: 1 per month, according to territory
Delivery Time: 10 days from receipt of order
Description: Preassembled wall panels of 2 x 4 construction. All 4 x 6 and 4 x 8 exposed rafters precut. Interior and exterior trim; prehung doors. Aluminum windows.
Literature: Available

FEDERAL HOMES CORP.
Canaan, Conn.
Contact: Chris D. Geisler, Pres.
Distribution Area: Eastern United States
No. Basic Plans: 40
Package Price: $2,875 to $9,000 f.o.b.
Sales Policy: Builder-dealers
Minimum Order: None
Delivery Time: 10 days from receipt of order
Financing: 30 days net
Description: Exterior wall panels and interior framing assembled; doors and windows hung; assembled trusses and gable ends in one or two sections; doors and siding materials. Kitchen cabinets and heating equipment optional.
Literature: Available

AMERICAN BUILDER
NORGE COTTAGES, INC.
Canaan, Conn.
Contact: Chris D. Geisler, Pres.
Distribution Area: Eastern & Central U.S.
No. Basic Plans: 24
Package Price: $585 to $11,000 f.o.b.
Sales Policy: Builder-Dealers, Dept. Store
Minimum Order: None
Delivery Time: 10 days from receipt of order
Description: Norge Cottages employ Tregaard Interlocking System for weatherproof joints. Planking for walls is white western spruce and outer-wall planking and window and door connections finger jointed. Package includes deck, wall and partition planking, windows and doors set in frames, complete ceiling and roof materials. No drywall required.
Literature: Available

ILLINOIS
W. G. BEST HOMES CO.
Box 509, Effingham, Ill.
Contact: George H. Frederking, V. P. in chg. of Sales
Distribution Radius: 400 miles
No. Basic Plans: 20; 1500 models
Package Price: $2,038 to $6,900 f.o.b.
Sales Policy: Builders
Minimum Order: None
Delivery Time: 10 days from receipt of order
Description: Complete house package; conventional exterior panels, sheathing, applied, windows factory installed, doors pre-hung. Panels 8' to 12' in length; insulation, heating assembly, plumbing fixtures, roofing, insulation and hardware included. Conduit placed in walls for wiring. Also ship houses pre-cut to dealers.
Literature: Available
See Advertisement Page F24

DOUGLAS HOMES CO.
1830 N. Grand Ave., E. Springfield, Ill.
Contact: Paul B. Walker, V. Pres., Sales
Distribution Radius: 400 miles
No. Basic Plans: 6; 160 models
Package Price: $3,070 to $5,890 f.o.b.
Sales Policy: Franchised dealers
Minimum Order: Based on potential area
Delivery Time: 10 to 14 days from receipt of order
Financing: C.O.D. or cash—2½% discount; interim financing; letter of credit; final financing assistance
Description: Modular panels 2" x 4" studs with siding applied. Doors and windows installed. Interior partitions, factory assembled, with 2 x 6 members; ¾" plywood roof sheathing. Interior doors and trim, kitchen cabinets, roofing, insulation and hardware included. Heating system, drywall, screens, carports, breezeways, and garages optional.
Literature: Available

GBH-WAY HOMES, INC.
Walnut, Ill.
Contact: Clifford M. Hill, Pres. & Sales Mgr.
Distribution Radius: 400 miles
No. Basic Plans: 50
Package Price: $2,500 to $20,000 f.o.b.
Sales Policy: Franchised dealers
Minimum Order: No quota
Delivery Time: 10 to 30 days from receipt of order
Financing: C.O.D.
Description: Panels up to 8' x 12' x 4" thick with doors and windows installed; shakes factory installed; drywall or plaster installed on job; roof trusses; floor panels 3' x 12'; cabinets and other equipment optional.
Literature: Descriptive brochure
See Advertisement Page F22

THURO BILT HOMES
Fairbury, Ill.
Contact: Chris Huette, Jr., V. P. in chg. of Sales
Distribution Radius: 600 miles
No. Basic Plans: 5 series; 18 models
Package Price: $2,800 to $9,000 f.o.b.
Sales Policy: Authorized dealers
Minimum Order: None
Delivery Time: 10 to 14 days from receipt of order
Financing: C.O.D. or cash—2½% discount; interim financing; letter of credit; final financing assistance
Description: Complete house package; conventional exterior panels, sheathing, applied, windows factory installed, doors pre-hung. Panels 8' to 12' in length; insulation, installed. Interior partitions panelized all other items pre-cut. Appliances optional. Color styling available.
Literature: Available

GBH-WAY HOMES, INC.
445 N. Sheridan, South Bend, Ind.
Contact: William Griswold, Mgr.
Distribution Radius: 400 miles
No. Basic Plans: 50
Package Price: $2,500 to $20,000 f.o.b.
Sales Policy: Franchised dealers
Minimum Order: No quota
Delivery Time: 10 to 30 days from receipt of order
Financing: C.O.D.
Description: Panels up to 8' x 12' x 4" thick with doors and windows installed; shakes factory installed; drywall or plaster installed on job; roof trusses; floor panels 3' x 12'; cabinets and other equipment optional.
Literature: Descriptive brochure
See Advertisement Page F22

COLPAERT HOMES, INC.
445 N. Sheridan, South Bend, Ind.
Contact: William Griswold, Mgr.
Distribution Radius: 75 miles
No. Basic Plans: 9; 12 models
Package Price: $2,500 to $7,000 f.o.b.
Sales Policy: Franchised dealers
Minimum Order: 10 per year
Delivery Time: 14 days from receipt of order
Financing: Construction loans on pre-closed mortgages or cash
Description: Exterior panels not over 8 ft. in length with sheathing factory applied; interior partitions panelized; windows completely assembled; items not panelized or assembled are precut to exact length; exterior and interior finish applied in the field; kitchen cabinets, appliances, furnaces, available as optional items.
Literature: Available

NATIONAL HOMES CORP.
Lafayette, Ind.
Other plants at Horseheads, N. Y., and Tyler, Tex.
Contact: George A. Cowee, Jr., V. Pres. for Sales
Distribution Area: States east of the Rocky Mountains
No. Basic Plans: 50; 200 models
Package Price: $2,600 and up
Sales Policy: Franchised builder-dealers
Minimum Order: 15 per year
Delivery Time: 8 days from receipt of order
Financing: Cash with order or letter of credit
Description: House package consists of exterior and interior wall panels with doors and windows installed; wall panels have gypsum board applied, also exterior sheathing; ceiling panels with ceiling finish; roof sections sheathed; package also includes sink and cabinets for kitchen, also heating unit; plumbing and electrical assemblies optional.
Literature: National Homes magazine

NEW CENTURY HOMES, INC.
Ind. Highway 26, Lafayette, Ind.
Contact: Reed H. Kelso, V. Pres.
Distribution Radius: 300 miles
No. Basic Plans: Over 300; over 600 models
Package Price: $2,175 and up
Sales Policy: Franchised dealers
Minimum Order: None
Delivery Time: 5 days from receipt of order
Financing: 5 days after delivery or against "take-out" letter from lender
Description: Three complete lines—1 and better fir and hemlock framing; glue-nail trusses with yellow pine chords; %" Celotex sheathing; prime dipped redwood or shake-o-ply applied siding; ½" or ¾" plywood roof sheathing; aluminum sliders or double hung wood windows; kitchen cabinets furnished.
Literature: Catalogue and individual brochures on each model

RICHMOND HOMES, INC.
Richmond, Ind.
Contact: H. Quentin Ramsey, Vice Pres. in chg. of sales
Distribution Radius: 800 miles
No. Basic Plans: 24; 4 and 5 elevations to each
Package Price: $3,000 to $8,000 f.o.b.
Sales Policy: Franchised dealers
Minimum Order: None
Delivery Time: 14 days from receipt of order
Financing: 2% discount cash with order; 1% discount C.O.D.
Description: Conventional 2 x 4 stud walls; plywood or treated panel sheathing; hip or gable truss roof; floor, slab, basement or crawl space; windows installed in panels, doors prefit; drywall interiors; storm windows and doors, heating and kitchen cabinets furnished. Masonry veneer, carport, garage and appliances optional.
Literature: Brochure and booklet

United States Steel Homes Div., U. S. Steel Corp.
Charlestown Road, New Albany, Ind.
Other plant at Harrisburg, Pa.
Distribution Area: National
No. Basic Plans: 25; 100 models
Package Price: $2,900 to $8,500 f.o.b.
Sales Policy: Franchised dealers
Minimum Order: Depends on territory
Delivery Time: 14 days from receipt of order
MODERN FIELD—A spacious 3 bedroom model designed for casual modern living.

ADD A "TOUCH OF GOLD" TO YOUR OPERATION

Get a faster turn-over on your building dollar in '57

The new Permabilt homes are a beautiful buy for your customers anyway you look at it. These homes are built of top quality materials...professionally designed with a modern flair...and completely packaged for fast, on-site erection.

Don't miss this profit opportunity! If you are an established builder who believes in a quality product, if you operate in Michigan, Illinois, Wisconsin, Ohio or Indiana, WRITE TODAY on your letterhead to Manufactured Homes, Inc., 332 So. Kalamazoo Ave., Marshall, Michigan.

An intensive advertising effort in leading magazines and newspapers pre-sells your customers on PERMABILT homes...helps reduce your sales costs, too!
Financing: Cash with order. Interim financing and letter of credit plan available.

Description: 4' x 8' panels, interior finish optional, fully insulated and fish-wired for electrician; doors and windows installed; no flooring furnished; roofing, furnace, water heater, kitchen cabinets and light fixtures supplied. Built-in and free-standing appliances optional.

Literature: Available

IOWA
KOZY MANUFACTURING CO.
Extra, Iowa
Contact: Tom J. Godwin, Pres.
Distribution Radius: 500 miles
No. Basic Plans: 24 also custom design
Package Price: $2,000 to $11,000 f.o.b.
Sales Policy: Builder-dealers
Minimum Order: None, based on sales area
Delivery Time: 10 to 14 days from receipt of order
Financing: C.O.D.
Description: Floor joists, sub and finish floors furnished; exterior walls conventional 2 x 4 studs, insulation, sheeting applied; windows installed, portion of siding applied, doors ready hung with hardware; partitions conventional 2 x 4 studs assemblies; trusses, gable ends completed; gypsum, trim, insulation furnished.
Literature: Available

KANSAS
STANDARD HOMES CO.
4400 Roe Blvd., Kansas City, Kan.
Contact: Eugene D. Smith, Mgr.
Distribution Radius: 200 miles
No. Basic Plans: 6; total of 36 models
Package Price: $2,000 to $6,000 f.o.b.
Sales Policy: Builders, franchised dealers
Minimum Order: None
Delivery Time: 14 days from receipt of order
Financing: Net 30 days
Literature: 1957 catalog

WARD CABIN CO., INC.
OF MAINE
P. O. Box 72, Houlton, Maine
Contact: Byron S. Kempton Associates, Nat'l Distributors
Distribution Radius: 1000 miles
No. Basic Plans: 45; total of 180 models
Package Price: $2,000 to $7,000 f.o.b.
Sales Policy: Contract Builders; developers
Minimum Order: None
Delivery Time: 2 weeks from receipt of order
Financing: Letter of bank commitment and open account; 2% cash; net 20 days
Description: Construction items only: No floor furnished, wall panels with insulation, windows installed and siding partially applied; interior framed panels without wall finish; precut rafters are 4 x 8 beams 4” c. with insulating roof panels; complete interior trim package with pre-hung doors.
Literature: Available

MARYLAND
R. H. BEST, INC.
1545 Rockville Pike, Rockville, Md.
Contact: R. H. Best, Pres.
Distribution Area: 60 miles
No. Basic Plans: 18 also custom
Package Price: $1,800 to $10,000 f.o.b.
Sales Policy: Individuals
Minimum Order: 1 per year
Description: All fir lumber, pre-cut. Usually erect the house, obtain sub bids for owner and necessary financing. Will custom build from any plan.
Literature: Brochure of 300 plans, price—$1.50

DIXIE HOMES
Box 339-A, Rt. #1, Upper Marlboro, Md.
Contact: George A. Halfpap, Jr., Sales Mgr.
Distribution Radius: 350 miles
No. Basic Plans: 20

AMERICAN BUILDER
DETAILS MAKE A BIG DIFFERENCE

EXTERIOR WALL FINISH—Cedar shakes and asphalt impregnated single backer applied over leatherback all purpose paper on a 1-inch nominal sheathing. This sturdy wall, insulated with reflective aluminum, provides a warm, tight home. Vertical siding is used on some models to create special design effects.

FLOOR SYSTEM—Floor framing is 2 x 8 on 16-inch centers. A double row of bridging providing additional strength; subfloor is nominal 1-inch sheathing; finish floor 1/2-21/4 inch face select hardwood in all principal rooms with 1/4-inch plywood elsewhere.

ROOF TRUSSES—All Thyer homes with the exception of contemporary models have trussed roofs. The truss provides an even distribution of roof load over the entire roof area. Thus the load is carried only by the outside walls . . . and bearing partitions are eliminated.

FLOOR TRUSSES—Floor trusses are 2 x 4 on 16-inch center with double 2 x 4 top plate. To provide added rigidity for the frame, corner bracing is used in all outside corner panels.

INTERIOR WALL FINISH—1/2-inch gypsum board with invisible joints "welded" with tape and gypsum cement assure a wall that is virtually crack-proof and can be decorated with one of the modern wall treatments.

"Thyer fabricated units have been awarded Parents' Magazine Commendation Seal."

MAN TO MAN...
Thyer details sell themselves

Sure it's the woman who buys . . . but it's the man in the family who puts his stamp of approval on construction details. He's the one who critically views the technical aspects of a new home and gives a silent nod pro or con.

Once you sell "Jones" on construction and what it means to his family, Mrs. Jones will take it from there. And, of course, when you're talking details you'll want Thyer construction in the homes you sell.

For further information on Thyer's unique construction details, mail the attached coupon today.

THE THYER MANUFACTURING CORPORATION
2854 Wayne Street 515 East Yazoo Street, Dept. 5
Toledo 9, Ohio Jackson, Miss.

Gentlemen:

Please have a Thyer factory representative call.

Name____________________________
Address__________________________

City_________Zone____State_______
Sales Policy: Builders, dealers, individuals
Minimum Order: 5 per year
Delivery Time: 20 days from receipt of order
Description: All framing material and panels are #1 W.C.K.D. Fir, sub-sided with plywood glued and nailed; interior partition panels; roof trusses; floor system sub-floored with 1/2" plywood; windows weatherstriped, glazed and primed at factory; exterior doors installed with hardware; roof sheathed and felt applied.
Literature: Available

GOLDEN KEY HOMES, INC.
Annapolis Junction, (Howard County), Md.
Contact: Pridemark Inc., 29 W. Biddle St., Balto 3, Md., Sales Distributors
No. Basic Plans: 75
Package Price: $2,500 to $11,000 f.o.b.
Sales Policy: Through exclusive sales distributor—special discount policy to builders for quantity purchase
Delivery Time: 2 to 3 weeks from receipt of order
Financing: As arranged
Literature: Available

MARYLAND HOUSING CORP.
5715 Southwestern Blvd., Baltimore 27, Md.
Contact: Robert E. Kanode; Andrew A. Soeliner
Distribution Area: Md., Va., Del., Pa.
No. Basic Plans: 3 with variations of each
Package Price: $3,000 to $8,000 f.o.b.
Sales Policy: Financially sound developers and builders
Minimum Order: No minimum
Financing: As arranged
Description: Sheathed panels; pre-cut floor framing and sheathing; stud assembled partitions; doors and windows assembled and fitted; roofing furnished; enclosed structure assembled stairs, closets and etc.

PRECISION BUILT HOMES, INC.
Millford Mill Rd., Pikesville 8, Md.
Contact: John S. Conroy, Sales Mgr.
Distribution Radius: 150 miles
No. Models: 14 with 84 exterior variations
Package Price: $2,556 to $5,505 f.o.b.
Sales Policy: Builders and individuals

MINNESOTA

HODGSON HOUSES, INC.
Dover, Mass.
Contact: Richard L. Spalding, Sales Mgr.
Distribution Radius: 300 miles
No. Basic Plans: 20; 20 models
Package Price: $3,500 to $15,000 f.o.b.
Sales Policy: Builders, and individuals
Minimum Order: No quotas
Delivery Time: Approximately 15 days from receipt of order
Financing: 10% deposit, balance at time of delivery or bank assignment in conjunction with bank construction loan
Description:Floors, walls, partitions and gable ends assembled into panels. Ceiling and roof framing, sheathing, window and door trim of precut.
Literature: Available

PRE-BUILT CONSTRUCTION, INC.
Contact: David S. Schwartz, Gen. Mgr.
Distribution Radius: 300 miles
No. Basic Plans: 10; 15 models
Package Price: $1,590 to $4,290 f.o.b.
Sales Policy: Franchised dealers; individuals
Minimum Order: No limit
Delivery Time: 15 to 20 days from receipt of order
Financing: Limited to 60 days where credit is established or C.O.D.
Description: Complete full wall panels with windows, doors, siding, factory installed. Interior package includes: dry-wall, doors assembled, cabinets, all necessary finishing materials; garages optional or sold in separate garage packages.
Literature: Available

TECHBUILT, INC.
1692 Massachusetts Ave., Lexington 73, Mass.
Contact: James E. Ford, Sales Mgr.
Distribution Area: National
No. Basic Plans: 16
Package Price: $1,440 to $10,000 f.o.b.
Sales Policy: Franchised builders and individuals
Minimum Order: 8 per year
Delivery Time: 2 weeks from receipt of order
Financing: Cash with order—1% discount; Bank letter assignment of construction payments
Description: Stressed skin roof panels, 1/4" plywood on 2 x 4 rafters with 1/4" plywood ceiling; floor panels 5/8" plywood subflooring on 2 x 6 joist with 1/4" plywood ceiling; wall panels 3/4" plywood on 2 x 4 studs; post and beam structural members; pre-hung doors; aluminum windows; kitchen cabinets; wardrobe units; hot water heating system furnished. Basic plans include one—and two—story houses.
Literature: Available

MICHIGAN

LIBERTY READY-CUT HOMES
1012 Lafayette, Bay City, Mich.
Contact: G. W. Massnick, Vice Pres.
Distribution Area: All states except far west and Florida
No. Models: 43
Package Price: $2,376 to $8,000 f.o.b.
Sales Policy: Primarily to individuals—some contractors
Minimum Order: Minimum of 5 units to qualify for builders' discounts
Delivery Time: 2-3 weeks maximum
Financing: All sales direct
Description: Package includes pre-cut materials, hardware, paints, roofing and necessary materials with the exception of plumbing, heating, wiring and masonry.
Literature: Four color catalog—52 pages—price 25¢
MANUFACTURED HOMES, INC.

Contact: Vern C. McManus, Sales Mgr.
Distribution Radius: 500 miles
No. Basic Plans: 15; total of 50 models
Package Price: $2,000 to $7,000 f.o.b.
Sales Policy: Builders and franchised dealers
Minimum Order: 6 per year, depending upon size of territory
Delivery Time: 10 days to 3 weeks
Financing: Various methods available
Description: Exterior panels pre-built, 2 x 4 stud walls pre-cut, pre-assembled. They are complete units. There are no additional materials to purchase. All component parts of each partition are packaged together in one unit to avoid confusion.

SECURITY HOMES MANUFACTURING CO.
1337 King Highway, Kalamazoo, Mich.

Contact: Frederick J. Sobies, Pres.
Distribution Radius: 300 miles
No. Basic Plans: 8; total of 32 models
Package Price: $2,000 to $7,800 f.o.b.
Sales Policy: Builders, franchised dealers, individuals
Minimum Order: 5
Delivery Time: 7 to 14 days from receipt of order
Financing: 2% cash, 10 days, net 30 days to rated accounts
Description: Basic 4' and 8' walls with special panels as needed; windows and doors installed; roof trusses or precut rafters; models having J-M Flexboard and vertical battens have siding applied at plant. All other types of siding, site applied; inside partitions fabricated and sheetrock applied to curtain walls; interior doors prefabricated and machined for hardware. Optional: Van Packer chimney, kitchen cabinets, storm sash and doors, fire tile, furnace.

MICHIGAN LUMBER FABRICATORS, INC.
Elkton, Mich.

Contact: B. G. Wiley, Sales Dept.
Distribution Radius: 500 miles
No. Basic Plans: 15; total models: 40
Package Price: $2,500 and up f.o.b.
Sales Policy: Licensed builders and builder-dealers
Minimum Order: 12 houses per year
Delivery Time: 10 days from receipt of order
Financing: 2% discount—cash with order; net 50 days
Description: Built-up walls and partitions standard dimensional lumber, sheathing—applied; trussed roof; pre-cut floor system; doors pre-hung with hardware; window types, siding finishes, heating systems, bath fixtures, combination doors, pre-fab chimneys, insulation, interior wall finish, kitchen cabinets, optional.

SEMICO HOMES, INC.
Seney, Mich.

Contact: Robert J. Esler, Vice Pres. in charge of Sales
Distribution Radius: 500 miles
No. Basic Plans: 15; total of 75 models
Package Price: $1,500 to $10,000 f.o.b.
Sales Policy: Builders and franchised dealers
Minimum Order: Variable
Delivery Time: 10 days from receipt of order
Financing: 15 days 2% discount; FHA, VA mortgages, interim financing available
Description: Package contains beam, joist, solid bridging, plates, trusses, laminated wall panels; windows and exterior doors weatherstripped; exterior and interior finishes; all trim items, including storage walls, custom birch cabinets, Formica counter tops, vanities and dividers as well as other decorative features.

SERVICE HOME MANUFACTURING CO., INC.
395-54th St., S. W., Grand Rapids, Mich.

Contact: Philip LeBlond, Sales Mgr.
Distribution Radius: 300 miles
No. Basic Plans: 23
Package Price: $2,850 and up
Sales Policy: Builders
Minimum Order: 3 to 5
Delivery Time: 10 days to 12 days from receipt of order
Financing: 5%—5th following
Description: Package Homes are pre-cut and pre-marked, not panelized or pre-assembled. They are complete units. There are no additional materials to purchase. All component parts of each partition are packaged together in one unit to avoid confusion.

MINNESOTA
NORTHERN HOMES & LUMBER CO.
6200 Wayzata Blvd., Minneapolis, Minn.

Contact: R. L. Nelson, Sales Mgr.
Distribution Radius: 600 miles
No. Basic Plans: 12, with exterior variations
Package Price: $2,745 to $5,150 f.o.b.
Sales Policy: Builders—dealers
Minimum Order: None set
Delivery Time: 4 days from receipt of order
Financing: Volume discount—30 days
Description: Homes are panelized using conventional framing of full dimension lumber.

PACKAGE HOMES, INC.
3 - 6th Ave., S. Hopkins, Minn.

Contact: Olaf R. Lee, Director of Sales
Distribution Radius: 600 miles
No. Basic Plans: 15; total of 81 models
Package Price: $2,700 to $7,200 f.o.b.
Sales Policy: Franchised builders
Minimum Order: Depends on franchised area
Delivery Time: 14 days from receipt of order
Financing: 5%—5th following
Description: Package Homes are pre-cut and pre-marked, not panelized or pre-assembled. They are complete units. There are no additional materials to purchase. All component parts of each partition are packaged together in one unit to avoid confusion.

PAGE & HILL HOMES, INC.
Shakopee, Minn.

Other plants at Albert Lea and Waterville, Minn.
Want to build—and sell—
5 to 50 homes this year?

TEAM UP WITH HARNISCHFEGER

Enjoy big-tract benefits... make more profit with less risk!

It takes teamwork to make more money in today’s tight home building market—the kind of teamwork you see here, which brings specialists into action who can help you make more profit from every home you sell.

By teaming up with Harnischfeger, you enjoy all the big tract benefits and economies you need to compete with successful, larger builder organizations. Substantial benefits like professional pre-tested home designs... project planning advice... liberal financing services... realistic cost analysis... advertising... complete promotional planning... sales counseling—all backed by Harnischfeger’s 22 years’ experience in the home building field.

So, if you’re planning to build 5 to 50 (or more) homes this year, it will pay you well to get all the facts on the new Harnischfeger plan... see how it can help you take the risks out of home building... put the profits in!

Shown on the opposite page is the actual job site of a leading Midwest P & H project builder.

**ACT NOW!**

A few select dealerships are still available in Wisconsin, Indiana, Illinois, Ohio, Michigan, eastern Minnesota, Iowa, Missouri, northern Kentucky. Call, wire or write today!

**You Have No Construction Money Worries With Harnischfeger!**

Through Harnischfeger Homes Acceptance Corporation you get the industry’s most liberal construction financing plan. It pays you up to 90% of the work done during the first, second, and third draw stages. As a result, your capital turns over faster, you sell more homes. Harnischfeger also helps you locate permanent financing, handles loan processing for you.

HARNISCHFEGER HOMES, Inc.
Dept. AB-574 • Port Washington, Wisconsin • Phone 611

APRIL 1957
Contact: M. D. Cements, Dir. of Sales
Distribution Radius: 950 miles
No. Basic Plans: 48, all reversible
Package Price: $2,164 to $5,800 f.o.b.
Sales Policy: Franchised dealers (builders or individuals)
Minimum Order: None
Delivery Time: 7 to 10 days from receipt of order
Financing: Deposit, with balance C.O.D., total C.O.D. or bank guarantee
Description: Panels up to 32", conventional 2 x 4 framing, plywood sheathing, insulated with interior gypsum board applied; siding factory applied; conventional floor; roof and ceiling panelized; wood or steel kitchen cabinets supplied.
Literature: Catalogue and specifications

MODULAR HOMES, INC.
303 Park Ave., Sedalia, Mo.
Contact: Arthur L. Dahlin, Sales Mgr.
Distribution Radius: 500 miles
No. Basic Plans: 20; infinite variations
Package Price: $4,000 and up
Sales Policy: Builders and individuals
Minimum Order: None
Delivery Time: From two weeks up
Financing: Negotiated individually
Description: House package includes everything from top of foundation up—and 90% fabricated. All plumbing and wiring installed. All finish complete. Mahogany trim, crawl space or basement only. High styling.
Literature: Available

WILSON HOMES INC.
St. Charles and Taussig Rds., Robertson, Mo.
Contact: Robert A. Tonn, Exec. Asst'T
Distribution Radius: 340 miles
No. Basic Plans: 10; with total of 81 models
Package Price: $2,500 and up
Sales Policy: Builders
Minimum Order: None
Delivery Time: 7 days from receipt of order
Financing: Cash unless credit established
Description: Assembled exterior walls with sheathing and windows installed; assembled interior partitions; roof trusses; prehung doors; exterior grade sheathing. Optional items include: exterior finish, appliances, kitchen cabinets, interior drywall, heating and air conditioning.
Literature: Available

MONTANA
HOME BUILDING CORP.
303 Park Ave., Somerville, N.J.
Contact: Alvin Ross, Pres.
Distribution Radius: 300 miles from Somerville, N.J.
No. Basic Plans: 30; total of 30 models
Package Price: $3,000 to $5,000
Sales Policy: Builders, franchised dealers and individuals
Minimum Order: Depending on dealer arrangement
Delivery Time: 3 weeks from receipt of order
Financing: Per dealer arrangement
Description: Easily assembled wall section panels with doors and windows installed. All other parts pre-cut. Famous for passing codes in any maximum code locality.
Literature: Large selection of booklets

PERMCO MANUFACTURING CO.
Pema-Bilt Homes, Peru, Neb.
Contact: Peter G. Holdorf, Pres. & Gen'l Mgr.
Distribution Area: Neb., Iowa, Mo., Kan., Colo., S. Dak.
No. Basic Plans: 15; also individual designs
Package Price: $3,500 to $8,000 and up
Sales Policy: Builders and franchised dealers
Minimum Order: 1 per month
Delivery Time: 14 days from receipt of order
Financing: None
Description: Floor ready cut; walls room-sized panels; partitions framed; roofs either ready-cut or trussed; interior finish drywall or lath and plaster; insulation and siding installed on job.
Literature: Plan sheets available

NEW JERSEY
ADIRONDACK LOG CABIN CO., INC.
Route #22, Somerville, N.J.
Contact: Norman Burscher, Sales Mgr.
Distribution Radius: Within 200 miles
No. Basic Plans: 22
Package Price: $2,900 to $8,000 delivered and erected
Sales Policy: Builders, dealers, individuals
Minimum Order: 10 units
Delivery Time: Approximately 3 weeks from receipt of order
Financing: 60 days
Description: Selling price includes delivery and erection on customer's foundation. House shell is complete including prime paint on exterior. Interior partitions framed only. Sheetrock, insulation, interior trim and kitchen cabinets delivered only for customer installation.
Literature: Available

PLYMOUTH HOMES, INC.
395 Long Ave., Hillside, N.J.
Other plant at Belle Meade, N.J.
Contact: Harry C. Smith, V. Pres.
Distribution Radius: 600 miles
No. Basic Plans: Unlimited
Package Price: $2,900 to $8,000
Sales Policy: Builders and franchised dealers
Minimum Order: None
Delivery Time: Approximately 3 weeks from receipt of order
Financing: 2% C.O.D.; 30 days net
Description: Floor system precut, plywood sub-floor; wall panels conventional framing, insulation and sheathing applied; windows and doors in panels; pre-assembled gable ends; pre-cut rafters; siding, roofing furnished by builder on job.
Literature: Available

PRESIDENTIAL HOMES, INC.
Pemberton, N.J.
Contact: Harry C. Smith, V. Pres.
Distribution Radius: 500 miles
No. Basic Plans: 39; custom fabricating
Package Price: $1,800 to $6,000 f.o.b.
Sales Policy: Builders
Minimum Order: None
Delivery Time: 10 days from receipt of order
Financing: 2% C.O.D.; 30 days net
Description: Floor system precut, plywood sub-floor; wall panels conventional framing, insulation and sheathing applied; windows and doors in panels; pre-assembled gable ends; pre-cut rafters; siding, roofing furnished by builder on job.
Literature: Available
“I’m proud to build American Houses they give the most for the money”

Builder Edward Stoll and son, of Bridgeport, Conn., sold 55 of these homes in their first week. Mr. Stoll says:

Edward Stoll and his son agreed on American Houses because, as they said, “American Houses have the look and the quality of a more costly, conventionally-built home. As builders, we also make big savings by eliminating pilferage and wasted materials.” American Houses gives you the value you need in these times of scarce mortgage money—and helps you build and sell more homes in less time.

A DRAMATIC FIRST IMPRESSION goes a long way toward selling the home. American Houses interiors show their quality in the way they lend themselves to eye-catching, sales-making decorative effects. Even the handsome wrought-iron railing is a part of the complete “package” supplied by American Houses, Inc.

A FINISHED BASEMENT RECREATION ROOM is another place where American Houses’ generous windows pay off in sales appeal. Note basement half-bathroom.

For prompt information on American Houses, and an American Houses franchise, fill in the coupon.
NEW YORK
ALLEGHANY HOMES CORP.
26 Copeland Ave., Homer, N.Y.
Contact: Mrs. Alice Ingersoll, Office Mgr.
Distribution Area: New England and Midwest
No. Basic Plans: 28; models unlimited
Package Price: $3,000 to $9,000 f.o.b.
Sales Policy: Franchised dealers
Minimum Order: None
Delivery Time: 2 weeks from receipt of order
Financing: Site draft and bank assignment

Description: Floors, walls partitions, ceiling and roofs in panels with finish flooring laid; rough wiring installed; drywall and trim factory applied. Truck delivery to site. Erection supervision on first three houses.
Literature: General catalogue
See Advertisement Page F26

OHIO
CONTINENTAL HOMES, INC.
1800 Stateline Rd., Toledo 12, Ohio
Contact: Arthur W. Amsler, Sales Mgr.
Distribution Radius: 400 miles
No. Basic Plans: 10; 3 elevations for each.
Package Price: $2,900 to $6,300 f.o.b.
Sales Policy: Builder-dealers
Minimum Order: Open
Delivery Time: 14 days from receipt of order

Description: Stressed skin construction of walls, ceiling and roof; roofs 9/12, 3/12 and 6/12 pitch; conventional floor; doors and windows installed in panels; gypsum board factory applied; siding and roofing site finished; cabinets and miscellaneous items included in package. Optional: plumbing, heating, porches, garages and carports.
Literature: Available

Join the profit parade with
modern SWIMMING POOL SUPPLIES

With more than 500 million dollars scheduled for new pool construction and supplies this year, you'll profit by opening a pool department.

modern filter systems, pool drains and fittings, ladders, vacuums, diving boards—over 100 pool products— are designed by our engineers, built by modern craftsmen and backed by the 22 year reputation of one of the largest, most dependable manufacturers in the pool field. Thousands of new pools will be built in 1957, millions of dollars will be spent for new equipment. Everything needed to build and maintain any size pool—including chemicals and pool paint as well as equipment, is available from a single reliable manufacturing source. Let modern help you cash in on the booming pool business.

modern GIVES YOU SO MUCH (more)

SEND TODAY FOR OUR COMPLETE A CATALOG AND DATA BOOK NO. 21D

modern SWIMMING POOL CO., INC. • ONE HOLLAND AVE., WHITE PLAINS, N. Y.

DO YOU NEED
• A totally prefabricated house—everything but the concrete shipped in one trailer . . .
• With unsurpassed speed of completion . . .
• Package Plus Finance Plan including permanent financing help
• Land planning and sales assistance

Then . . . Write . . . Today . . . To

General Homes
DIVISION OF GENERAL INDUSTRIES INC.
2023 WAYNE TRACE, FORT WAYNE, INDIANA

AMERICAN BUILDER
EXPLAN HOMES, INC.
1541 Chatfield Ave., Cleveland 11, Ohio
Contact: Minor F. Monroe, Sales Mgr.
Distribution Radius: 600 miles
No. Basic Plans: 30; total of 30 models
Package Price: $2,950 to $7,500 f.o.b.
Sales Policy: Builders: franchised dealers
Minimum Order: 1 per month
Delivery Time: 1 to 3 weeks from receipt of order
Financing: Interim financing or C.O.D.
Description: Exterior wall panels conventionally built of 2x4's, 16" o.c. with insulating or plywood sheathing; double-course factory primed shakes or siding applied; aluminum slider or redwood windows installed in panels; Sanford Gri-P-Late roof trusses; exterior doors with hardware installed in panels; built-up interior partitions, 2x4's 16" o.c.; split jamb pre-hung doors, roofing, floor systems, kitchen cabinets, hardware.
Literature: Plans, specifications, engineering data and service
Contact: N. T. Jones, Gen. Mgr.
Distribution Radius: 600 miles
No. Basic Plans: 30; total of 30 models
Package Price: $2,600 to $4,400
Sales Policy: Builders only
Minimum Order: 6 per year
Delivery Time: 10 to 14 days from receipt of order
Financing: Letter of credit or cash with order less 2%
Description: Conventional interior and exterior panels, roof trusses, pre-hung doors, roofing, floor systems, kitchen cabinets hardware.
Literature: Available
Contact: 1. L. Caplan, Sales Mgr.
Distribution Radius: 150 miles
No. Basic Plans: 18; total of 72 models
Package Price: $3,800 to $9,000 f.o.b.
Sales Policy: Experienced builders
Minimum Order: 10 per year
Delivery Time: 12 days from receipt of order
Financing: 2% C.O.D.; 1% 10 days
Description: Floors, walls and partitions in panels (conventional framing); windows, doors and wall insulation in place; roof trusses or ceiling joist and rafters. Exterior and interior finish with all trim items; kitchen cabinets, finish flooring and hardware furnished.
Literature: Available
Contact: Warner Knight, Sales Mgr.
Distribution Radius: 300 miles
No. Basic Plans: 10; total of 20 models
Package Price: $2,900 to $7,800 f.o.b.
Sales Policy: Builders and individuals
Minimum Order: None
Delivery Time: 10 days from receipt of order
Financing: 2%—10 days; 30 days net
Description: Exterior panels, 2x4 studs 16" o.c. with insulating sheathing; lap siding or shingles applied; exterior doors hung and sash inserted; interior sections room size 2x4 studs 16" o.c.; pre-cut rafters or trusses, gable ends; interior doors pre-hung, drywall and kitchen cabinets.
Literature: Available
Contact: John W. Pease, Pres.
Distribution Radius: 600 miles
No. Basic Plans: 24; 14 models
Package Price: $3,297 to $10,386 f.o.b.
Sales Policy: Builders and individuals
Minimum Order: None
Delivery Time: 14 days from receipt of order
Financing: 2% for cash with order
Description: Floor materials pre-cut with plywood sub-floor; conventional framework; built-up gables; trussed roof with prefabricated chimney and furnace. Many models include built-in range and oven; attic and kitchen fans.
Literature: Available
Contact: R. E. Grigsby, Dept. Mgr.
Distribution Radius: 500 miles
No. Basic Plans: Over 200 elevations
Package Price: $2,500 to $12,500 f.o.b.
Sales Policy: Builder-dealers
Minimum Order: None
Delivery Time: 5 to 10 days from inventory
Financing: Letter of credit
Description: Framed panels 2 x 4 construction with sheathing, windows, doors installed; interior panels framed with pre-hung doors; roof trusses and gables; plaster or dry-wall and siding finishes optional.
Literature: Folio "A" available
Contact: Minor F. Monroe, Sales Mgr.
Distribution Radius: 600 miles
No. Basic Plans: 30; total of 30 models
Package Price: $2,950 to $7,500 f.o.b.
Sales Policy: Builders: franchised dealers
Minimum Order: 1 per month
Delivery Time: 1 to 3 weeks from receipt of order
Financing: Interim financing or C.O.D.
Description: Exterior wall panels conventionally built of 2x4's, 16" o.c. with insulating or plywood sheathing; double-course factory primed shakes or siding applied; aluminum slider or redwood windows installed in panels; Sanford Gri-P-Late roof trusses; exterior doors with hardware installed in panels; built-up interior partitions, 2x4's 16" o.c.; split jamb pre-hung doors, roofing, floor systems, kitchen cabinets, hardware.
Literature: Plans, specifications, engineering data and service
Contact: N. T. Jones, Gen. Mgr.
Distribution Radius: 600 miles
No. Basic Plans: 30; total of 30 models
Package Price: $2,600 to $4,400
Sales Policy: Builders only
Minimum Order: 6 per year
Delivery Time: 10 to 14 days from receipt of order
Financing: Letter of credit or cash with order less 2%
Description: Conventional interior and exterior panels, roof trusses, pre-hung doors, roofing, floor systems, kitchen cabinets hardware.
Literature: Available
Contact: 1. L. Caplan, Sales Mgr.
Distribution Radius: 150 miles
No. Basic Plans: 18; total of 72 models
Package Price: $3,800 to $9,000 f.o.b.
Sales Policy: Experienced builders
Minimum Order: 10 per year
Delivery Time: 12 days from receipt of order
Financing: 2% C.O.D.; 1% 10 days
Description: Floors, walls and partitions in panels (conventional framing); windows, doors and wall insulation in place; roof trusses or ceiling joist and rafters. Exterior and interior finish with all trim items; kitchen cabinets, finish flooring and hardware furnished.
Literature: Available
Contact: Warner Knight, Sales Mgr.
Distribution Radius: 300 miles
No. Basic Plans: 10; total of 20 models
Package Price: $2,900 to $7,800 f.o.b.
Sales Policy: Builders and individuals
Minimum Order: None
Delivery Time: 10 days from receipt of order
Financing: 2%—10 days; 30 days net
Description: Exterior panels, 2x4 studs 16" o.c. with insulating sheathing; lap siding or shingles applied; exterior doors hung and sash inserted; interior sections room size 2x4 studs 16" o.c.; pre-cut rafters or trusses, gable ends; interior doors pre-hung, drywall and kitchen cabinets.
Literature: Available
Contact: John W. Pease, Pres.
Distribution Radius: 600 miles
No. Basic Plans: 24; 14 models
Package Price: $3,297 to $10,386 f.o.b.
Sales Policy: Builders and individuals
Minimum Order: None
Delivery Time: 14 days from receipt of order
Financing: 2% for cash with order
Description: Floor materials pre-cut with plywood sub-floor; conventional
farming for all exterior and interior walls in easily handled panels; roof trusses with plywood sheathing; roofing and siding furnished; drywall or lath for interior finish; all interior trim items including kitchen cabinets and bath accessories. Literature: Full color catalog, 82 pages, with prices.

SCHOLZ HOMES, INC.
2001 N. Westwood, Toledo, Ohio Other Plant at Wilmington, Del.
Contact: David C. Chambers, Vice Pres. & Gen'l Mgr.
Distribution Radius: 700 miles
No. Basic Plans: 36; variations in excess of 150
Package Price: $3,000 to $15,000 f.o.b.
Sales Policy: Qualified builders on an informal franchise basis
Minimum Order: No specified minimum
Delivery Time: 2 weeks from receipt of order
Financing: 2% C.O.D.; 15 days net; have own acceptance corporation
Description: Smallest package (Bellevaire) is shipped completely pre-assembled in three 8' x 40'-8" sections. Site labor restricted to foundation and joining of sections. Larger versions in Contemporary and Colonial series shipped in panelized form. Includes all items except plumbing, heating, wiring and masonry. Optional electrical, heating, tile packages, etc., are available.

STYLE-RITE HOMES CORP.
659 Marion Rd., Columbus 7, Ohio
Contact: Walter J. Kuehnel, Vice Pres., Sales
Distribution Radius: 800 miles
No. Basic Plans: 14; total models, 5
Package Price: $2,560 to $5,775 f.o.b.
Sales Policy: Builder-dealers
Minimum Order: 10 per year
Delivery Time: 14 days from receipt of order
Financing: 2% C.O.D.; net bank letter of credit and 60 day interim financing
Description: Panels conventionally framed with siding or shakes applied; windows installed; interior partitions built; glued and nailed trusses for conventional and fabricated roof panels for post and beam construction.
Literature: Available

THYER MANUFACTURING CORP.
2857 Wayne St., Toledo, Ohio
Other plant at Collins, Miss.
Contact: Harry Leggett, Sales Mgr.
Distribution Radius: 900 miles
No. Basic Plans: 70; total 330 models
Package Price: $2,500 to $10,000 f.o.b.

VALLEY HOMES, INC.
3161 East Kemper Rd., Cincinnati 41, Ohio
Contact: Chapin G. Jones, Pres.
Distribution Radius: 100 miles
No. Basic Plans: 5
Package Price: $1,600 and up, f.o.b.
Sales Policy: Builder and individuals
Minimum Order: None
Delivery Time: 10 days from receipt of order
Financing: Net 30 days
Description: Specialize in custom fabrication from builder's plans. Framing 2 x 4 -16" o.c. with insulating sheathing applied; interior partitions factory assembled; H-Brace roof trusses; plywood sheathing; basically a shell package; other items furnished at builder's option.
Literature: Available on basic plans

WEAKLEY MANUFACTURING CO.
South 26th St., Newark, Ohio
Contact: Sales Dept. - main office
Distribution Radius: 350 miles
Package Price: $10,000 to $30,000
Sales Policy: Builders
Minimum Order: None
Delivery Time: One or two weeks from receipt of order
Financing: Cash or bank letter
Description: Up to 24' panels, conventionally framed; insulating sheathing, siding, drywall factory applied; electric boxes and pull wires in place; aluminum windows, doors installed and cased; plumbing and interior paint optional.
Literature: Available

OKLAHOMA

SOUTHERN MILL & MANUFACTURING CO.
P. O. Box 1087, Tulsa, Okla.
Contact: Jim Fish
Distribution Area: Midwest and Southwest
No. Basic Plans: 15, all reversible with variations
Package Price: $3,500 to $6,000 f.o.b.
Sales Policy: Established builders
Minimum Order: Varies with conditions
Delivery Time: 2 to 3 weeks from receipt of order
Luxury-Line homes—$15,000 to $100,000—can be individualized in every luxurious detail. A special architectural service is available to help you fit the house to its natural setting and landscape it beautifully.

GO NATIONAL!

National Homes Provides Every Conceivable Merchandising Idea to Sell More Houses

Sales Training for Dealer Salesmen . . . Intensive training in successful sales and merchandising techniques—offered free to all National Homes builder-dealers.

Successful Open Houses . . . Detailed information on how to conduct a successful open house showing . . . how to man a model home . . . how to set up the actual sales area . . . available sales brochures, point-of-sale materials and their use . . . instructions to sales personnel on proper sales techniques.

Company Sponsored Advertising . . . National Homes provides builder-dealers with large space newspaper advertising and complete kit of sales promotional material, suggestions and ideas for their promotions.

Cooperative Advertising . . . Liberal allowance to assist in a sustaining promotional program in local newspapers, radio and television. Included is a complete advertising service of professionally prepared material.

Field Advertising Service . . . Trained specialists to assist in all phases of promotion—newspaper, radio, television, outdoor, etc.

National Advertising . . . Full page, four-color advertisements and editorial features in leading national magazines augment local advertising and assure an informed, presold market.

Model Home Furniture . . . A complete, preassembled package of furniture and decorations, professionally selected, is offered to National Homes builder-dealers at unusual low cost.

Financing . . . National Homes builder-dealers are sure of financing, too . . . through either the National Homes Acceptance Corporation or one of the major lending institutions that purchase National Homes mortgages.

Go National! Get the benefit of these important advantages! Write George A. Cowee, Jr., Vice President for Sales, National Homes Corporation, Lafayette, Indiana. Plants at Lafayette; Horseheads, N. Y.; Tyler, Texas.

Custom-Line homes—$10,000 to $15,000—offer outstanding value and quality, extra livability and spaciousness with the fine home features that please the most discriminating home buyer.

Pacemaker homes—$7,500 to $12,500—offer smart styling and large living areas. Speedy erection and occupancy—some models can be built in as little as 4½ days—assure low-cost construction.
Financing: 10 days 2%; 30 days net
Description: Conventional floor framing; windows, doors, gypsum board and hardware installed on 4' wide wall panels; ceiling panels and roof trusses; sub-floor and sheathing plywood; exterior surfaces offered in optional materials; no plumbing, heating, wiring or paint furnished.
Literature: Available

OREGON
TRU-EN., INC.
624 S.W. Harrison St. Portland 1, Ore.
Contact: Henry H. Brosocious, Pres., Mgr.
Distribution Area: National
No. Basic Plans: Unlimited
Sales Policy: Franchised dealers
Delivery Time: 10 to 20 days
Financing: 2% —10; ADF
Description: Component parts only; standardized packaged building parts; framing members for sidewalls, partitions and trussed rafters.
Literature: Available

PENNSYLVANIA
ADMIRAL HOMES, INC.
149 Water St., West Newton, Pa.
Contact: Frank A. Baldus
Distribution Area: National
No. Basic Plans: 150, 30 designs
Package Price: $2,500 to $15,000 f.o.b.
Sales Policy: Builders — franchised dealers
Minimum Order: 5 per year
Delivery Time: 7 to 14 days from receipt of order
Financing: 30 days letter of credit; financing available for 10 or more units through acceptance corporation
Description: Structural framing exterior walls with sheathing; siding or shakes applied; windows installed; floor system pre-cut; trusses or pre-cut roofs; interior walls finished on site.
Literature: Literature showing plans and perspectives

CRESTWOOD HOMES CO.
Box 311, Greenville, Pa.
Contact: Chas. D. Rissell, Vice Pres., Sales
Distribution Radius: 300 miles
No. Basic Plans: 24; total of 120 models

Financing available to qualified dealers through Best Finance Division

W. G. BEST HOMES COMPANY
EFFINGHAM, ILLINOIS
THE BEST COMMUNITIES OF TOMORROW ARE BUILT WITH BEST TODAY!

AMERICAN HOUSES, INC.
S. Aubrey & E. South Strs., Allentown, Pa.
Other Plants at Lumberton, N.C. and Cookeville, Tenn.
Contact: F. T. Talcott, Service Mgr.
Distribution Radius: 350 miles
No. Basic Plans: 42
Package Price: $2,000 to $10,000 f.o.b.
Sales Policy: Builder-dealers, large projects to builders
Minimum Order: None
Delivery Time: Approximately 7 days from receipt of order
Financing: 30 days
Description: Floor and wall panels and partitions usually 48" wide, modular framing 16" o. c., windows and doors plant installed. Roof trusses or rafters with pre-cut plywood sheathing. Interior and exterior finish field applied. Kitchen cabinets, roofing, etc., optional.
Literature: Brochures and pamphlets
See Advertisement Page F19
NORTHERN HOMES OF PA., INC.
Box 315, Chambersburg, Pa.
Other plant at Hudson Falls, N.Y.
Contact: K. H. Wells, Pres.
Distribution Area: Up to 600 miles by truck; beyond 600 miles, by rail
No. Basic Plans: 70 with varied elevations; will quote and build to customers' plans
Package Price: $1,800 to $10,000 f.o.b.
Sales Policy: Franchised dealers
Minimum Order: None
Delivery Time: 7 to 14 days from receipt of order
Financing: Varies; usually 10% with order, balance on delivery; or bank letter of credit
Description: Floor panels with 1" sheathing or plywood; exterior wall panels, sheathed with windows and doors pre-cut; roof sheathing applied conventional. Choice of shakes, asbestos or cedar siding. Optional: interior trim, baseboard, hardwood flooring, storm windows and screens.
Literature: Catalog with photos and floor plans

SOUTHERN HOMES OF PA., INC.
Box 315, Chambersburg, Pa.
Other plant at Hudson Falls, N.Y.
Contact: K. H. Wells, Pres.
Distribution Area: Up to 600 miles by truck; beyond 600 miles, by rail
No. Basic Plans: 70 with varied elevations; will quote and build to customers' plans
Package Price: $1,800 to $10,000 f.o.b.
Sales Policy: Franchised dealers
Minimum Order: None
Delivery Time: 7 to 14 days from receipt of order
Financing: Varies; usually 10% with order, balance on delivery; or bank letter of credit
Description: Floor panels with 1" sheathing or plywood; exterior wall panels, sheathed with windows and doors pre-cut; roof sheathing applied conventional. Choice of shakes, asbestos or cedar siding. Optional: interior trim, baseboard, hardwood flooring, storm windows and screens.
Literature: Catalog with photos and floor plans

HILCO HOMES
70th Street off Essington Ave., Philadelphia 42, Pa.
Contact: Daniel M. Gurst, Sales Mgr.
Distribution Radius: 250 miles
No. Basic Plans: 29, each with 21 alternate plans
Package Price: $2,500 to $6,500 f.o.b.
Sales Policy: Builders, franchised dealers, individuals
Minimum Order: 10 per year
Delivery Time: 7 to 10 days from receipt of order
Financing: Individual financing up to 90 days with commitment—5 year plan
Description: Basic sections 4' wide, 8' high; twin and triple window sections up to 13'; pre-cut joists, rafters and studding; door openings pre-fabricated, windows and doors installed on job; roof sheathing, roofing and siding applied on job; plumbing, wiring, heating, kitchen and bath equipment optional.
Literature: Available

FAIRHILL, INC.
2165 Latham, Memphis 9, Tenn.
Contact: Philip A. McCarthy, Sales Mgr.
Distribution Radius: 550 miles
No. Basic Plans: 10
Package Price: $2,000 to $8,000 f.o.b.
Sales Policy: Builders and franchised dealers

The pool that is Revolutionizing the industry!

National's prestressed packaged swimming pool is being demanded more and more as both public officials and home owners find they can save at least 1/3 of the cost on their swimming pool construction. It's a completely new system whereby National Pool Equipment Co. furnishes all precast concrete wall units, vertical rods for prestressing for building the pool, including all fittings and filtration system and the pool is built either on a do-it-yourself basis or by using local labor.

Write or Call our Nearest Representative Will Contact You

NATIONAL
POOL EQUIPMENT CO.
Florence, Alabama

Phone AT 2-2920

APRIL 1957
Minimum Order: Varies
Delivery Time: 5 days after firm order
Financing: 30 days
Description: Designed for slab, crawl space or basement; room size panels framed and sheathed with windows in place; ready-hung door, drywall, trim, kitchen cabinets, hardware and light fixtures; optional flooring and siding.
Literature: Brochure on residences

TENNESSEE

HOUSTON READY-CUT HOUSE CO.
P.O. Box 124, Houston 1, Texas
Contact: R. N. Barrett, Jr., Sales Mgr.
Distribution Radius: 500 miles
No. Basic Plans: 6; total of 12 models
Package Price: $1,900 to $6,500 f.o.b.
Sales Policy: Direct to companies and individuals
Minimum Order: None
Delivery Time: 21 days from receipt of order
Financing: None
Description: Conventional construction of dimension lumber with plywood sheathing and sub-floor; optional exterior wall finishes; drywall interior gypsum board; aluminum or wood windows optional; kitchen cabinets and bathroom accessories.
Literature: Available

SOUTHWEST AMERICAN HOUSES, INC.
1200 Givens St., P.O. Box 16, Houston 1, Texas
Contact: George E. Finch, Vice Pres.
Distribution Radius: 300 miles
No. Basic Plans: 20; total of 100 models
Package Price: $2,000 to $6,000 f.o.b.
Sales Policy: Builders
Minimum Order: 5 to start—none thereafter
Delivery Time: 7 to 10 days from receipt of order
Financing: Cash
Description: Wall sections conventional construction with plywood sheathing; roof trusses; interior trim and millwork.
Literature: Available

TEXAS

HOUSTON READY-CUT HOUSE CO.
P.O. Box 124, Houston 1, Texas
Contact: R. N. Barrett, Jr., Sales Mgr.
Distribution Radius: 1500 miles
No. Basic Plans: 6; total of 12 models
Package Price: $1,900 to $6,500 f.o.b.
Sales Policy: Direct to companies and individuals
Minimum Order: None
Delivery Time: 21 days from receipt of order
Financing: None
Description: Conventional construction of dimension lumber with plywood sheathing and sub-floor; optional exterior wall finishes; drywall interior gypsum board; aluminum or wood windows optional; kitchen cabinets and bathroom accessories.
Literature: Brochure on residences

SOUTHWEST AMERICAN HOUSES, INC.
1200 Givens St., P.O. Box 16, Houston 1, Texas
Contact: George E. Finch, Vice Pres.
Distribution Radius: 300 miles
No. Basic Plans: 20; total of 100 models
Package Price: $2,000 to $6,000 f.o.b.
Sales Policy: Builders
Minimum Order: 5 to start—none thereafter
Delivery Time: 7 to 10 days from receipt of order
Financing: Cash
Description: Wall sections conventional construction with plywood sheathing; roof trusses; interior trim and millwork.
Literature: Available

TEXAS HOUSING COMPANY
9003 Denton Dr., Dallas 9, Texas
Contact: John E. King, Vice Pres., Sales Mgr.
Distribution Radius: 700 miles
No. Basic Plans: 170; total of 350 models
Package Price: $1,950 to $4,500 f.o.b.
Sales Policy: Builders, dealers, individuals
Delivery Time: 10 days from receipt of order
Description: Exterior wall panels conventional framing with plywood sheathing; trussed roof; windows and doors weatherstripped and installed in panels; variety of floor finishes offered; kitchen cabinets, exhaust fan, light fixtures, heating units furnished.

Other models available in
MODERN CAPE COD
RANCH
SPLIT LEVEL

For full details, write on your own letterhead to Dept. AB

Manufactured by IVON R. FORD, INC., McDonough, N. Y.
Breakfasts

(Continued from page 27)

couples will need a vastly greater proportion of new dwellings.

More children

Cold statistics bring out the most spectacular phases of the U.S. population increase. In the 35 years 1940-1975, the number of children below 14 will double: 33 to 66 million. And people 65 or over will more than double: 9 to almost 21 million.

Thus our population is growing by leaps and bounds at both extremes, and the still-ebbing tide of young adults will turn after 1957.

So once we get into the 1960's, the home-building industry will have a Herculean job cut out for it. It will have to supply many millions of homes of considerable spaciousness for families with, in the aggregate, a vastly increased number of children. And a vast number of specially designed homes suited to old couples. On that project it hasn't even begun.

Can it do the job of building no less than 2 million homes priced at people's pocketbooks? If not, we can be certain of this: by the time we get into the 1960's the most pressing job in the whole American picture will be the need to house more people, at American standards, than most of us can even grasp at present. And the pressure to get government into the picture to house vast numbers through subsidization in welfare-state fashion will be tremendous.

That brings with it all the inefficiencies and irksome controls inherent in bureaucratic management of social and economic problems. The private-enterprise home-building industry can avoid this disaster in only one way: by ceaseless progress in the methods of producing, distributing and financing homes. In other words, giving more value for the customer's money That is the American solution. Toward that end, in full realization of the giant mass market that lies ahead, let us all set our minds.
WEST VIRGINIA

SCOTT HOMES
Contact: B. R. Diez, Gen'l Sales Mgr.
Distribution Area: 250 miles
No. Basic Plans: 15, exterior variations
Package Price: $4,000 to $9,000 delivered
Sales Policy: Franchised dealers
Minimum Order: None
Delivery Time: 7 to 14 days from receipt of order
Financing: Letter of credit; net cash upon completion of erection
Description: Exterior wall panels, windows, doors, and floor joists pre-cut and packaged to be installed at site; drywall, plumbing and heating optional in extra packages.
Literature: Catalog and specifications

Wisconsin

GREAT LAKES HOMES, INC.
P.O. Box D, Sheboygan Falls, Wis.
Contact: Kent Dawson, Sales Mgr.
Distribution Area: Wis., Ill., Iowa, Minn., Mich., Ind.
No. Basic Plans: 18; 18 models plus a duplex and a fourplex
Package Price: $2,500 to $10,000 f.o.b.
Sales Policy: Builders; franchised dealers
Minimum Order: Builders one order; franchised dealers one a month
Delivery Time: 10 days after receipt of order
Financing: Letter of credit
Description: Exterior and interior wall panels conventionally framed; exterior panels have sheathing and siding applied; windows installed, glazed; floor panels capped with plywood; ceiling joists and rafters pre-cut; roof sheathing furnished; trussed roofs; interior doors prehung with packaged trim; roofing, flooring, fans, kitchen cabinets, medicine cabinets, bathroom fixtures, etc., optional.
Literature: Catalog and specifications

HARNISCHFEGER HOMES, INC.
500 Spring St., Port Washington, Wis.
Contact: W. H. McAuliffe, Vice Pres.
Distribution Area: West Coast to east of Mississippi
No. Basic Plans: 150; modular components for any plan
Package Price: $1,900 to $9,500 f.o.b.
Sales Policy: Qualified builders and franchised dealers
Minimum Order: None
Delivery Time: Approximately 15 days from receipt of order
Financing: Cash discount with order; C.O.D.; letter of credit
Description: Exterior wall panels, windows and doors installed, aluminum or wood windows, siding applied; roof trusses or glue-laminated beams, plywood roof sheathing, built-up gables; dove cotes, shutters etc; all interior and exterior trim, doors ready hung, hardware. Alternates of exterior trim design for various architectural styles.
Literature: Brochure available

HNERCMEC BUILELABN GS, LIT.
50th Ave. & 2nd St., S. E., Calgary, Alberta
Contact: Jan S. Smith, Mgr.
Distribution Area: All western Canada
No. Basic Plans: 14 with exterior variations
Package Price: $2,500 to $6,000 f.o.b.
Sales Policy: Builders, dealers and individuals
Minimum Order: Based on conditions
Delivery Time: 10 days from receipt of order
Financing: Letter of credit or check with order. Complete financing through Harnischfeger Homes acceptance corporation
Description: Completely fabricated room size interior partition panels and insulated exterior wall panels in which one piece interior dry-wall sheets and plywood exterior sheathing are glued and nailed to panel members. Glazed metal sliding windows and trim installed in exterior panels. Pre-hung doors complete with hardware. Completely assembled roof trusses, roof and gable panels. All interior and exterior trim included. Optional roofing, siding, chimney, kitchen and laundry equipment.
Literature: Four-color, full-line brochure
See Advertisement Pages F16, F17

MIDWEST HOUSING CORP.
625 E. Eastern, Janesville, Wis.
Contact: G. H. Wahl, Vice Pres.
Distribution Area: Wisconsin, Illinois, Michigan and western New York
No. Basic Plans: 26; total of 64 models
Package Price: $2,000 to $7,000 f.o.b.
Sales Policy: Builders and individuals
Minimum Order: 1 per year
Delivery Time: 7 days from receipt of order
Description: Interior and exterior wall panels factory assembled; windows installed, glued up trusses, all finishing materials furnished; ¼" roof sheathing, gable ends, roofing.
Literature: Brochure of floor plans and descriptions

THE HALLIDAY CO., LTD.
Maple Ave., Burlington, Ontario
Contact: B. G. Johnstone, Sales Mgr.
Distribution Area: Ontario
No. Basic Plans: 12; total of 48 variations
Package Price: $3,500 to $6,500 f.o.b.
Sales Policy: Builders-dealers
Minimum Order: None
Delivery Time: 3 weeks from receipt of order
Financing: Mortgage assignment or cash
Description: Fully fabricated wall and partition panels; drywall lining applied; lath and plaster optional; insulation; doors, windows, trim installed; ceiling and roof panels; roofing and siding site applied.
Literature: Color brochure and price lists

AMERICAN BUILDER
spends $400 for 10,000 brochures
to hand out in his model. Likewise,
he puts up $400 for road signs and
$1,000 for point-of-sale materials
such as displays, renderings, models,
plat layouts, etc.

This leaves us $9,450, or
$787.50 a month, or $181.73 a
week for advertising, merchandis-
ing, and promotion calculated to
bring viewers out to see his model
so the salesman and point-of-sale
material can work on them. You
cannot buy much beyond classi-
fied ad space for $181 a week. And
your sales are not going to be what
they would be (assuming your
product and its price are competi-
tive) if you loosened up the purse
strings.

Now, let’s take a look at our
theoretical builder after he has read
this article and is convinced of the
short-sighted error of his ways.

Allocating 2 per cent of his gross
for merchandising program will
give him $30,000 to play with.
First, let’s take $5,000 and retain a
good advertising agency to handle
the whole program, including pub-
licity. Instead of a cheaper $400
folder, let’s spend $1,500 for our
brochure and get one in four colors
with professional-appearing artwork
—one that will not suffer by com-
parison with the one the local
Cadillac dealer hands out.

For road signs, let’s spend $2,000
instead of $400 and get the very
best and enough of them to blanket
every pole, fence, and vacant lot
for five miles around the subdivi-
sion. And why not budget $2,000
instead of $1,000 for point-of-sale
material, including effects and
other impressive sales gimmicks.

This leaves over $19,000, or
$1,582 a month, or $365 a week
for advertising. Now we have some-
thing to work with.

In most markets for this amount
you could afford co-sponsorship of
a weekly local or filmed TV show
plus a weekly quarter-page in one
or two newspapers. Enough would
be left over for a double-page
spread or a radio or TV saturation
announcement campaign when a
new subdivision opens.

To be good merchandisers build-
ers must play down this conserva-
tive-businessman attitude. We have
a product to sell; we have to get out
and sell it—not merely by listing
the model address in the classified
ad columns.

It is this sort of aggressive mer-
chandising that the building indus-
try needs. New ideas, new media,
more intelligent people and, most
of all, more money are all that is
needed for the sales picture of this
industry to rival that of many
others.

For example:

- Good plats that have houses
  facing each other across lawns and
  malls, with garages facing traffic
  and parking areas.

- Play yards for younger children,
  completely enclosed by back and
  side yards, which could be super-
  vised by mother from her kitchen
  window. Such play areas, for every
  half-dozen houses, would cost but
  a few dollars per house.

- How about a community club
  house, tennis courts, putting greens,
  etc.? Sure, they take land away
  from houses, but they bring sales.

- How about a swimming pool for
  the 100 families for whom Mr.
  Rose’s mythical builder is going to
  build this year? It would cost only
  about $100 per house.

- By working with church and
  school people, the builder can
  assure his buyers of the proper moral
  and cultural facilities before the
  sale and before the lack of same be-
  comes a problem.

Some of the items mentioned ob-
viously are out of the builder’s
reach without pricing his homes out
of competitive range. Others cost
little or nothing directly. In many
cases, he would be well advised to
join with 2 or 3 other builders in a
merger of land development and
community-facility responsibilities,
with each one remaining independ-
ent in the building and sales fields.

I am convinced that home build-
ers who offer planned communities
that provide more, or all of the ad-
vantages I have outlined would
find themselves worrying not about
sales and financing but about pro-
duction.

The lesson we must learn from
competing industries, which may
have passed us by, is not that our
merchandising is old-hat, but that
our product has not improved with
the times.

Home design, construction tech-
niques, mass production of building
materials, prefabrication, and me-
chanical equipment for the home
and for production have advanced
great strides in the last 15 years.
So, I am convinced, have our adver-
tising and merchandising methods.

Our conception that a good home
at a reasonably good price fills the
bill belongs in the middle ages. It
takes much more. The surround-
ings, the immediate neighborhood,
and the community as a whole
make up the package for which the
home buyer shops and compares.

These can be improved. The power
to improve them lies primarily with
the builder.

No matter how well-planned and
attractive your subdivision and
your houses may be, you must ad-
dvertise to tell the public what you
have and where it is. For 100
homes, an outlay of $10,000 should
be ample for a continuing, well-
thought-out institutional campaign,
stressing your achievements in pro-
viding planned communities.

And a modest splash once or
twice a year when a new model or
sub is opened would be adequate.

And a well-rounded public relations
program, including the kind of post-
sale customer treatment which cuts
down dissatisfaction and com-
plaints, would sufficiently augment
the over-all effort.

Word-of-mouth praise from satis-
fied buyers (and lookers) plus the
reaction to the institutional theme
of your regular ads and whatever
worthwhile public-relations activi-
ties which come your way will re-
sult in a reputation that brings pre-
sold customers to your model.

To anyone who has taken part in
more than one real estate trans-
action, it is apparent that sales re-
sistance is most often motivated by
fear. My program is based upon
creating a home-builder reputation
that tends to overcome this fear
which some families feel when
about to part with their life savings
or tie themselves to a 25-year debt.

This kind of program, emphasi-
ing over-all planning, will sell more
homes than any number of satura-
tion advertising campaigns.
This new work offers all the essential information needed to develop better, more economical wood structures. Included is results of the latest research timber scientists.

It should prove a valuable working tool for builders, architects, and others concerned with wood as a structural material. The book is divided into three sections. The first covers fundamental structures and characteristics of wood. The second section on design explores and analyzes preliminary considerations, design procedure and details, fabrication and erection. Section three covers design standards and provides design and engineering specifications and tabular data.

The Timber Engineering Company, engineering and research affiliate of the National Lumber Manufacturers Association, is qualified to prepare this handbook, by its long experience as a non-profit service organization.

The author of this work is a master builder who conceives, designs, and engineers his own structures.

One of Nervi's many accomplishments is the invention of Ferro-cement, a reinforced concrete of an entirely new concept, which combines concrete's freedom of form with steel's qualities of strength. He has put this material to use in building large and beautiful thin-shell concrete structures.

The book, with many photographs, shows over 30 years of the author's activity. In addition it conveys practical information for builders. Several chapters offer thorough analyses of such topics as structural characteristics of reinforced concrete, imperfect elastic behavior of concrete, Ferro-cement, structural prefabrication, and others.

**Simplified Estimating**

**by J. Douglas Wilson and C. M. Rogers**

Clear explanations of how to take off from a set of blueprints and specifications a bill of materials for the construction of a frame house. Arithmetical methods of accurately estimating and cross-checking against mistakes, suitable for use of small contractors and lumber dealers. Widely adopted as a textbook for students. 5th edition. Pocket size. 305 pages, 123 illus. 60 tables. ($105) **$3.75**

**Time-Saver Standards**

**by the Editors of Architectural Record**

Of great utility to the architect and builder and many other technicians. A standard reference work kept up to date since its inception. Large page format, 8½ x 11, shows charts and illustrations in high legibility, along with text descriptive of every detail of building practice from site planning and functional elements to the latch on the door for all types of structures. May be inspected on our approval plan. 884 pages. (#101) **$12.50**

**Richey's Reference Handbook**

**by H. G. Richey**

A working reference for builders, contractors, architects, building materials dealers, carpenters, and building construction foremen. Conveniently arranged for easy use. Among its complete coverage of topics are waterproofing, building stones, fireproofing, paper-hanging, plumbing, heating and ventilation, electric wiring, hydraulics, glossary of engineering, architectural, and trade terms. 1,640 pages. 544 illus. (#103) **$9.95**

**Legal Cases for Contractors, Architects and Engineers**

**by I. Vernon Werbin**

Points out rights and liabilities and the more common trouble spots in construction, engineering, and architectural contracts and in general how to protect your interests when entering into a contract and how to avoid legal difficulties. 5½ x 8. 453 pages. 1956. (#107) **$6.00**

**Contractor's Material List and Labor Cost Estimate Forms for Home Building**

A 15-sheet set of take-off forms for complete listing of material and labor costs involved in the construction of a house. (#108) **$1.00**

**The Business Law of Real Estate**

**by Gerald O. and Lillian G. Dykstra**

For those engaged in any business or profession involving reality, including builders, homeowners, builders, contractors, this is the ideal book for answering innumerable questions, 852 pages, 1956. (#119) **$10.00**

**Specifications Kit for Home Building**

Simplified specification forms, which when properly filled out describe all materials, construction details, and quality of workmanship to be used in the erection of a home. Set of 14 different sheets. (#109) **50¢**

**Handbook of Building Terms and Definitions**

**by Herbert R. Waugh and Nelson L. Burbank**

A dictionary which includes also architectural symbols, plumbing symbols, pipe fittings, geometric figures, and an illustration of the 100 principal parts of a house. 421 pages. Illus. (#110) **$5.00**

**Hogg's Wage Tables for Building Contractors**

A complete set of wage tables worked out by quarter hours for any length of time from 1 to 60%, hours, and every wage rate from 75¢ per hour to $5.00 per hour. It also includes all odd rates in cents and quarter cents. Pocket size, flexible, loose-leaf bound. (#102) **$6.00**

**HOUSE CONSTRUCTION DETAILS**

**by Nelson L. Burbank**

Drawings and photographs explain each detail step by step from foundation to finish. Tells how to alter stock plans and remodel as well as build new construction. 93 additional full-page drawings of house details. Conforms to national building regulations. 8½ x 11. 395 pages. 2,100 illus. (#112) **$4.95**

**HOPPER'S WAGE TABLES FOR CARPENTRY**

A complete set of wage tables worked out by quarter hours for any length of time from 1 to 60%, hours, and every wage rate from 75¢, increasing 25¢ per hour to $5.00 per hour. It also includes all odd rates in cents and quarter cents. Pocket size, flexible, loose-leaf bound. (#110) **$5.00**

**BUILDING CONTRACTORS**

**by Frank R. Walker**

Latest estimating and cost data on everything that goes into a house, apartment, or institutional, commercial, or industrial project, fully indexed. 12th ed., 1,774 pages, Vest-pocket size. (#104) **$12.00**

**BUILDING ESTIMATORS' REFERENCE BOOK**

**by Frank R. Walker**

Latest estimating and cost data on everything that goes into a house, apartment, or institutional, commercial, or industrial project, fully indexed. 12th ed., 1,774 pages, Vest-pocket size. (#104) **$12.00**

**RICHIEY'S REFERENCE HANDBOOK**

**by H. G. Richey**

A working reference for builders, contractors, architects, building materials dealers, carpenters, and building construction foremen. Conveniently arranged for easy use. Among its complete coverage of topics are waterproofing, building stones, fireproofing, paper-hanging, plumbing, heating and ventilation, electric wiring, hydraulics, glossary of engineering, architectural, and trade terms. 1,640 pages. 544 illus. (#103) **$9.95**

**LEGAL CASES FOR CONTRACTORS, ARCHITECTS AND ENGINEERS**

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Points out rights and liabilities and the more common trouble spots in construction, engineering, and architectural contracts and in general how to protect your interests when entering into a contract and how to avoid legal difficulties. 5½ x 8. 453 pages. 1956. (#107) **$6.00**

**CONTRACTOR'S MATERIAL LIST AND LABOR COST ESTIMATE FORMS FOR HOME BUILDING**

A 15-sheet set of take-off forms for complete listing of material and labor costs involved in the construction of a house. (#108) **$1.00**

**THE BUSINESS LAW OF REAL ESTATE**

**by Gerald O. and Lillian G. Dykstra**

For those engaged in any business or profession involving reality, including builders, homeowners, builders, contractors, this is the ideal book for answering innumerable questions, 852 pages, 1956. (#119) **$10.00**
Fundamentals of Carpentry
by W. E. Darbourn
Volume I—Tools, Materials, Practice (with glossary of Carpentry Terms), 374 pages, 234 illus. New 1956 ed. ($113) $3.95
Volume II—Practical Construction, 512 pages, 318 illus. New 1956 ed. ($114) $4.95
Complete house carpentry in two
volumes. An outstanding value, 5 1/4 x 8 1/4. The 2 volumes $8.50

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AMERICAN BUILDER
Employees may receive coffee break compensation

By JOHN F. McCARTHY
Attorney-at-law

You may be required to compensate your employees for coffee breaks. This interesting observation arises from a recent decision of the Federal Court of Appeals for the Tenth Circuit in the case of Mitchell v. Greinetz, (1956) 235 F 2d. 621.

This action was brought under the Fair Labor Standards Act which fixes minimum wages for workers who produce goods that go into interstate commerce. The employer required his employees to take fifteen minute rest periods during the morning and afternoon working hours. This litigation arose because if the required rest periods constituted compensable time, the wages of the employees did not equal the minimum amount required by the Act, since those wages did not include any payment for the rest periods.

The employer was engaged in the business of manufacturing neckties, mufflers and stoles. These were produced by hand operated looms and the work was intricate and fatiguing. The employees were paid on a piece work basis. There were two fifteen minute rest periods, one in mid-morning and one in mid-afternoon, so that the employees might relax and have refreshments. At first the breaks were optional, but later they became compulsory. They were not considered part of the working day. New employees were informed of the rest periods and were told they would not receive any compensation for that time.

The Court decided that the two breaks were part of the time of employment and therefore were compensable. It concluded that the employer was not paying the minimum wages required by the Fair Labor Standards Act. The Court observed that it was not unaware of the fact that the rest periods were beneficial to the employees since they were paid on a piece work basis. However, the Court emphasized the obvious benefits to the employer arising from these breaks. The Court said at p. 625:

"We may well take judicial knowledge of the fact, as pointed out in the interpretative bulletin, that coffee breaks or short rest periods are rapidly becoming an accepted part of employment generally. While no doubt they are beneficial to the employees, they are equally beneficial to the employer in that they promote more efficiency and result in greater output, and that this increased production is one of the primary factors, if not the prime factor, which leads the employer to institute such break periods. Significant of this trend is the fact that a number of states by statute or orders provide for short rest periods and provide that such periods shall be compensated as work time."

"The benefits to the employer are so substantial that the rest periods are now mandatory and the employees may not use them if they desire to try to increase their earnings. Under all the facts and circumstances of the case, we conclude that the time in question bears a close relationship to employment and is, therefore, compensable."

APRIL 1957
The Month Ahead

SOME LOOSE MONEY
In the National News section of this issue of AB there’s an item on a confab of OHI VIP’s in Tuscon, Ariz., that should cheer up those who are feeling tight money (i.e., everybody). In the home improvement business, at least, money should be plentiful. Banks apparently like to make the short term Title 1 loans, and bankers predict a record year.

BAD NEWS DEPT.
If you’re an individual contractor or part of a partnership, your final 1956 tax return must be filed by April 15th, along with the balance due. Also, file your 1957 estimated tax, and one quarter of the estimated amount.

On April 30th you must file Form 941 for your employees’ withholdings for the first quarter of 1957, and pay the amounts due.

ANOTHER “MONTH”
There are so many official “Months” that they’re beginning to double up. May is also Plumbing — Heating — Cooling Month, which is a mouthful, but before you slough it off, remember that these promotions wouldn’t exist if they didn’t pay off. Find out from your plumbing and heating subs if this publicity can help sell their products in your houses.

FOR LAND’S SAKE
Feeling the land pinch, either price wise or space wise? Next month’s land-planning section will show you how a Savannah group of builders handled the problem, and without fighting city hall.

Another blast for OHI
May has been designated as Home Improvement Month. This means another big boost for the Operation Home Improvement program, and a boost that you can take advantage of too, if remodeling is at all important in your business.

OHI has had a spotty existence to date. In cities where builders, utility companies and municipal officials have gotten out of their swivel chairs and really worked, it has boomed. In other areas, where everyone has waited for George to do it, OHI has gone over like the proverbial lead balloon.

It’s up to you
The moral is that OHI is just what you make it. The market is there—that’s been proven a hundred times—but it’s not like the new house market. The family that’s looking for a new home knows just what it wants and why it wants it. The potential remodeling client, on the other hand, may be sitting quite comfortably in the house he fully expects to die in. He may be only vaguely conscious of the slight crowding that would prompt him to invest in a new porch or an additional bedroom. This person has to be sold, so you have to go out and explain to him just how miserable his condition really is. Your best bet might be to check with your retail lumber dealer. Chances are he’s in OHI up to his eyeballs, and he’d be glad to help you.

Summer is icumen in
For those of us in the North, at least, it’s been the worst winter in years, which shouldn’t blind you to the fact that to house hunters, Spring is the first warm weekend. They’ll be out like flies, and the guy with the first open model will be amply repaid for any rushing he did to open it.

Plug in to us in May
Our May issue will carry a feature on electrical living, and how it sells houses. There’ll be stories on remodeling and commercial work as well as new homes—something for all in other words.
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Smart new contours have been designed for these Semi-Concealed Hinges and Pulls. Sparkling finishes applied to the hardware enhance their installation and are easy to keep clean.

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Many of our products are now sold in the attractive Visual Pack, where you see all the actual merchandise at a glance. Strong polyethylene bags protect the hardware finishes from injury and prevent loss of any of the component parts.