# BUILDER

APRIL 1953

TWO DOLLARS

# 1953 CATALOG Directory

FOR THE Light Construction Industry

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NuTone's Model K-15 Recessed Door Chime can be installed flush with wall and ceiling . . . or surface mounted. Only  $7\frac{1}{4}$ " square, 2" deep. Smart chrome bezel and white grille . . . Chime can be painted to blend with wall or ceiling colors.

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NEW completely enclosed power unit . . Protects mechanism

- NEW comparety enclosed power unit : . related in the from dirt or grease.
   NEW double resonator . . chime tone bar is resonated from BOTH ends . Clearer, Louder, Longer Tone.
   NEW bezel and grille . . Contemporary design . . blends with any interior in keeping with modern appear
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Please send new 32-page book of Garage Plans and Ideas, available free to building professionals, only if this coupon is used. Also Strand Door information and dealer's name.

OF DOOR DIVISION.

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Name			
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APRIL 1953

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AMERICAN BUILDER

#### APRIL, 1953

BUILDER

American Builder is published by the SIMMONS-BOARDMAN PUBLISHING CORPORATION, Emmett St., Bristol, Conn., with editorial and executive offices at 79 W. Monroe St., Chicago 3, Illi, 30 Church St., New York 7, N.Y. Jomes G. Lyne, President and Publisher; Samuel O. Dunn, Chairman Emeritus; C. J. Wageman, Vice President and Business Manager; A. L McGinnis, Treasurer.

Meclimin, treasuler. American Builder (originally "Carpentry and Building") with which are incorporated Building Age, National Builder, Permanent Builder, and the Builder's Journal, was founded Jon. 1, 1879. Nomes registered in U.S. patent office and Canadian registrar of trade mark.

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Advertising Sales Offices: 79 W. Monroe St., Chicago 3, III.; Terminal Tower, Cleveland 13, Ohio; 2909 Maple Avenue, Dallos 4, Texas; I127 Wilshire Blvd, Los Angeles 17, Calif.; 30 Church Street, New York 7, N.Y.; 514 Terminal Sales Bildg., Portland 5, Ore.; 244 California St., San Francisco 4, Calif.

San Francisco 4, Calit. Address all subscriptions and correspondence concerning them to: Subscription Department, American Builder, Emmett St., Bristol, Conn. Changes of address should reach us three weeks in advance of next issue date. Send old address ubt the new, enclosing it possible your address label. The Post Office will not forward capies unless you provide extra postage. Duplicate copies cannot be sent.

Circulation Department: W. L. Taylor, Manager; Field Staff. C. L. Conley, Guy Hill, John Simonson, M. A. Spector, Earl Spohn, Dick Whittington.

ton. Published monthly by Simmons-Boardman Publishing Corporation, Emmeth St., Bristol, Connecticut, Editorial and Executive Offices, 79 W Monroe St., Chicago 3, Illinois, and 30 Church Street, New York 7, New York, Subscriptions to individuals or firms (and their employees) engaged commercially in building construction, design and engineering: material distribution, production and manufacture; teachers and students of the trades and trade associations connected with the building industry; United States, Possessions and Canada, 1 year, \$3.50; 3 years, \$20.00. Foreign countries: 1 year, \$10.00; 3 years, \$20.00. Single copies, 75 cents. April issue, \$2.00. Entered as secondclass matter July 20, 1950, at the Past Office of Bristol, Connecticut, under the act of March 3, 1879.



American Builder is a member of Associated Business Publications (A.B.P.) and Audit Bureau of Circulations (A.B.C.). Printed in U.S.A.

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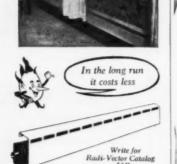
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- A turn of the lever provides a shower ranging all the way from a "needle" spray to a rinsing or "rain" spray.
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APRIL 1953

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 $\frac{3}{2}$  h.p., 18,000 r.p.m. Cuts  $2^{5}/16$  wide, straight or bevel. Makes roughing cuts up to  $\frac{3}{32}$  deep. Fence adjusts to 45°. Furnished with bench bracket for use as bench jointer. With grinding attachment, plane sharpens own cutters. Metal carrying case.



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MOST POWERFUL ON THE MARKET 1 h.p., 18,000 r.p.m. Heavy duty plane with utmost versatility. Cuts up to  $2^{1/2}$  " wide. Adjustable for straight or bevel cuts up to  $45^{\circ}$ . Depth of cut to 3/16". Bench bracket for use as high speed jointer. Sharpens own cutters with grinding attachment. Metal carrying case.

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High-speed spiral cutters leave smooth finishes, cut with or across the grain without splintering edges. Accurate adjustments can be made to assure precision work. And Stanley Electric Planes are rugged-built to give you years of troublefree service.

See a Stanley Electric Plane in action on one of your own jobs. Your dealer will be glad to demonstrate. Just give him a call. Or write for Catalog No. 96, Stanley Electric Tools, 400 Myrtle St., New Britain, Connecticut.



On the job from East to West ... made by men who make tools **BEST** 

Reg. U.S. Pat. Off HARDWARE . TOOLS ELECTRIC TOOLS STEEL STRAPPING . STEEL

AMERICAN BUILDER

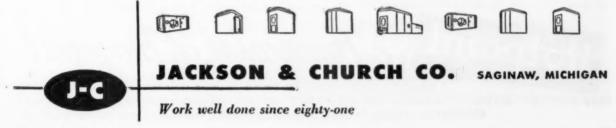


The same space-saving convenience . . . the same dependable heating ... the same operating economy . . . now available in a range of smaller sizes for homes, shops and smaller commercial installations.

All J-C SUSPENDED UNITS can be located overhead or in out-of-theway places. Larger units are available in 112,000, 122,000, 145,000, 224,000, 280,000, 392,000, 450,000, 800,000, and 1,000,000 BTU output. Units are UL approved.

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Designed in the modern trend, this Hotpoint House of the 50's, built in Syracuse, N. Y. by Joseph A. Cicci, incorporates simplicity, beauty, and extreme livability. It's built for the modern homemaker who demands comfort and convenience at her fingertips—everywhere in the home. No compromise has been made with quality. Named in honor of their luxurious Hotpoint Kitchens and Home Laundries, this "home of the future" exemplifies modern living at its best—electrically. Progress in the field of home building is of prime

Progress in the field of home building is of prime importance to Hotpoint. Modern Electric Kitchens and Home Laundries are among the first points of interest to prospective home buyers. Homes so equipped are more salable, and permit modest income families to own the most modern conveniences for only a slight increase in their monthly payments. Hotpoint appliances in homes strengthen the builder's reputation, enhance his prestige, and broaden his market. We believe that the home building industry and Hotpoint can mutually profit through a partnership aimed at better value for our customers.

Join the builders who stand out above the rest because their homes offer *more*... with complete Hotpoint All-Electric Kitchens and Home Laundries. The kitchen in this Ciccibuilt Hotpoint House of the 50's is the last word in luxury-living. No convenience has been omitted. Equipped with Hotpoint Electric Range, Refrigerator, Dishwasher and garbage Disposall B, this kitchen would delight any homemaker.

Here is an example of efficient Home Laundry arrangement that provides maximum benefits of alloted floor space. Equipped with Hotpoint's Automatic Washer and Dryer, Rutary Ironer, and handy cabinets, this compact work-center makes laundry a joy instead of a job. The Hotpoint Food Freezer is within a few feet of the kitchen.

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FOOD FREEZERS • AUTOMATIC WASHERS • CLOTHES DRYERS • ROTARY IRONERS • CABINETS • DEHUMIDIFIERS HOTPOINT Co. (A Division of General Electric Company) 5600 West Taylor Street, Chicago 44, Illinois THERE IS A DEFINITE REASON WHY BUILDING MATERIAL DEALERS FROM COAST TO COAST ARE FEATURING

# THOMASON K FLUSH DOORS

All Wood, Hollow Core or Solid Core. For Interior or Exterior Use.

#### **Produced from the finest quality** of foreign and domestic woods

As one of the largest producers of plywood in the United States, it is no wonder that the THOMASON PLYWOOD CORPORATION offers a wide choice of beautiful veneers. From Africa, the Philippine Islands, Panama, Honduras, Canada and from America's own Appalachian forests come the rare and rugged woods that go into the production of THOMASON Flush Doors.

#### AVAILABLE WITH THESE FACE VENEERS

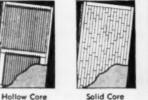
Philippine Mahogany, Genuine Honduras Mahogany, Walnut, Oak, Birch, Knotty Pine, Gum, or in any face veneer desired.

> Here is more good news! THOMASON plastic-faced

flush doors are now available in all domestic and foreign wood grain plastics, as well

as in decorative plastics.

NOTE CONSTRUCTION FEATURES



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# "It's open and shut with no work at all..." R-W electric Garage Door Operators

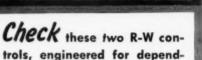
#### These R-W Features ARE IMPORTANT SALES MAKERS

- Easy to install—Completely assembled, with track, in a single carton at the factory.
- Easy to service—Simple adjustments requiring no special tools, keep the doors working smoothly.
- Safe—A large friction clutch prevents operational failures with resulting damage to property. In power failure doors may be operated manually.

#### And FOR UNBEATABLE CONVENIENCE, IT'S R-W 999 GARAGE DOOR HARDWARE



Here it is ... complete overhead garage door hardware conveniently packed in one box. No. 999-1 for doors up to 9 ft. wide weighing not more than 200 lbs.; No. 999-2 for doors up to 16 ft. wide weighing not more than 375 lbs. Write for folder giving free details.





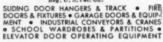
#### No. 1504 Radio Control



—operates from dash control button, opens and closes doors within 75 feet. Also operates doors from inside garage.

For complete information on R-W AuT-o-DoR line write for catalog number A-87.





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Richards-Wilcox Mfg. Co.

FOR ANY DOOR THAT

AMERICAN BUILDER

1953

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### modern



This newest mark of refinement for today's bathrooms... Hall-Mack's new concealed Toilet Paper Holder...brings smart styling and tactful covering to a bathroom facility that hasn't changed much down through the years. When not in use only the pleasing curvature of the chrome cover gives a hint of the contents ...yet it opens instantly at the touch of a finger. It blends perfectly with all modern bathroom designs and colors ... and easily accommodates a standard roll of toilet paper.

This new Concealed Toilet Paper holder is but another example of Hall-Mack quality expressed through originality of design.

QUALITY BATHROOM ACCESSORIES

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#### bathroom magic...

An original Hall-Mack idea, this new Concealed Toilet Paper Holder is the extra touch of convenience and charm that makes a home more desirable ... more saleable! Only the finest materials and craftsmanship go into bathroom accessories bearing the Hall-Mack name.

In Hall-Mack's complete line of bathroom accessories you'll find a number of original developments with the kind of special appeal that sparks up an entire bathroom...and conveys the impression that the entire home is the result of careful thought and planning.

May we send you complete information on Hall-Mack's new Concealed Toilet Paper Holder...and on other exclusive Hall-Mack bathroom accessories?

Sold by leading plumbing, tile and hardware dealers everywhere.

#### HALL-MACK COMPANY

### This Is Your Reference Issue – Keep It Handy

T HIS 1953 CATALOC DIRECTORY issue is a pioneer in its class. Heretofore, issues similar to this have presented an assortment of useful, but generally unrelated material. While some presentations of this kind have grouped information and tabulated material under chapter heads, little or no attempt has been made to achieve continuity. American Builder's 1952 Catalog Directory did strive for continuity by interspersing tables, charts, and graphs with text. The attempt was successful.

This year, however, the publishers wanted a closer relationship of the material with the types of structures in which the materials are applied. As a result, and with a full realization of all the obstacles and difficulties that would have to be met, it was decided to choose a group of typical buildings, and use them as actual examples of the best ways to install and apply.

It was reasoned that only in this way could a vast mass of information be pinpointed and thus given a utility to readers far beyond anything obtainable without actual engineering and application details in structures. While it has been impossible to engineer all of the products discussed in one or more of the buildings used as examples, the work has been done as far as practical. The publishers believe that this forward step in presenting catalog information makes this 1953 Catalog Directory the most valuable issue of its kind ever published in the light construction field.

It will be noted that the indices of products, manufacturers' names and brand names has been streamlined to include only the more important producers of each class of products. Heretofore an attempt has been made to bracket the entire field of production. The result has been the inclusion of scores of names of minor producers, most of them distributing in limited areas, and without facilities to service inquiries and orders on a national scale. It is felt that such indices waste the time of both readers and the smaller producers.

The indices of products, manufacturers and brand names in this issue include only the more important ones. Marginal and little used product classifications have been deleted. Only the names of manufacturers operating on national or near national scales have been retained.

The Catalog Directory has been stripped of all useless data and listings, and carefully planned as an indispensable reference volume of easily understandable and applicable data for busy builders who want quick and reliable answers to problems.

#### Publisher, James G. Lyne

#### Publishing Director, C. J. Wageman

Chief Draftsman, J. T. Freh.

Editor, Edward G. Gavin Managing Editor, Lyn E. Arent

Feature Editor, Welden Reynolds. Architectural Editor, Arthur V. Hansen. Eastern Editor, Garrett Winter. Field Editor, J. L. Zar. Assistant Editor, H. Louis Purdy. Assistant to the Editor, Margaret C. Carroll. Western Editor, W. C. Rodd. Washington Editor, J. W. Kizzla. Production Editor, Dorothy Milchrist. Research Director, W. S. Gaskill. Assistant Research Director, Constance Nicolai.

Catalog Directory Editor, Edmund Mottershead. Architectural Consultant, W. T. Anicka.

Art Editor, George M. Clark.

Editorial Office, 79 W. Monroe St., Chicago 3, Ill.

Every effort will be made to return material submitted for possible publication (if accompanied by stamped, addressed envelope), but the editors and the corporation will not be responsible for loss or damage.

APRIL 1953

### **AB Washington News Letter**

#### For the Light Construction Industry

A special service for American Builder readers. The latest Washington developments affecting the light construction industry assembled by special Washington correspondent and sent by wire to be printed and bound in your American Builder at the last minute before it is mailed. A regular monthly feature.

#### Washington, March 20, 1953

ALBERT M. COLE, former Republican Congressman from Kansas, is the man selected by President Eisenhower to become administrator of the Housing and Home Finance Agency. He will succeed Raymond M. Foley.

THE SENATE CONFIRMED THE APPOINTMENT by a 64 to 18 vote. Some opposition had been expected because of Cole's strong position against public housing while a member of Congress.

• A MEMBER OF THE HOUSE BANKING AND CURRENCY COMMITTEE since 1947, the new HHFA administrator took an active part in forming much of the nation's housing legislation. This is the law he must now administer.

HIS FIRST MOVE will be to undertake a "comprehensive study" of the organizations and functions of HHFA. He said the "White House asked that he conduct such a study. He thinks emphasis should be placed on keeping activity in the homebuilding industry high.

APPEARING before the Senate Banking Committee in connection with his appointment, Cole touched upon many aspects of housing. Here are some of his views:

SLUM CLEARANCE: "I think private enterprise can do the job." He said he already has "very definite plans" on this subject, and will make it "my number one project." He denied that he opposes the slum clearance program. His criticism of such legislation in the past, he said, stemmed from his belief that slum clearance was being used as "a vehicle for extraneous legislation." He did not elaborate.

• RESEARCH: Cole indicated that while he originally opposed giving research authority to HHFA, he no longer has such reservations. He said that as of the present he would not seek changes in this portion of the National Housing Act.

▶ INTEREST RATES: "I look on interest rates as part of the over-all fiscal policy of the government." Cole's approach to this problem would be to do nothing until "a thorough and complete study" is made, and then only in cooperation with the Treasury and the Federal Reserve. He said he felt no change was needed "at the moment." He defined a "moment" as "30 days."

FHA AND FNMA: Cole thinks the FHA program is a good one. He said he has no objection to FNMA as a "secondary mortgage market"; but he expects to "take a look" at FNMA if he becomes HHFA administrator. He agreed with one senator that the government should take the lead in setting up "some program" to take the FNMA load off the government. He said there should be a decrease in direct government housing activity "when conditions warrant."

> PUBLIC HOUSING: Cole said personally he opposes "certain aspects" of public housing. He thinks it would take "100 to 200 years" for existing programs in this field to accomplish anything. He said he did not think his opposition to public housing in the past was important to his present situation. He assured the Senate committee he would "administer existing law effectively" even though he might not agree with all aspects of it. And, at one point, he said he was not "unalterably opposed" to all public housing. He said that as HHFA administrator he would not "lobby for or against public housing." ► HOUSING FOR LOW-INCOME GROUPS: "I think we have been reactionary, we have been static in our housing program." Cole said the nation must have "a vigorous program" to provide housing for low and middleincome groups. He spoke of 6,000,000 families. But he insisted we must do this job "and still maintain the liberty of the people."

> WARRANTIES: Questioned on the matter of compulsory warranties, Cole said he agreed "with the broad general principal." He did not indicate just where he would draw the line.

INDUSTRY REACTION to the Cole appointment has been unanimously favorable. The National Association of Home Builders, for example, called Cole "eminently qualified" for the position — "an outstanding choice."

AN "ENTIRELY ENCOURAGING" OUTLOOK for the remainder of 1953 is seen by Raymond M. Foley, the departing head of HHFA. Foley had headed the agency and the nation's housing program since 1945.

CHIEF PROBLEM this year will be mortgage money, in Foley's opinion. Adequate funds are on tap, he thinks, but the job will come in trying to channel such funds into production of houses in the low-income brackets.

REVIEWING his 18 years in the government housing field, Foley said "one of the most important things" during that time has been the "amazing growth" of the homebuilding industry. He recalled the situation in the mid-thirties and compared it with the present when a million starts a year "is just matter of fact."

ESTIMATES of construction volume so far this year bear out earlier optimism. Dollar outlays for new residential construction are running 13 per cent above last year. Spending for "additions and alterations" to existing homes is up 10 per cent.

CONGRESS HAS APPROVED the \$500,000,000 increase in Title I insurance authority for FHA. The timing is good. The action was promptly cleared by the President. It will provide a spark for the "repair, alteration and improvement" business during the spring and summer months.

A "PAY-BACK" CLAUSE contained in this latest Title I legislation points up the financial success of this program. When Title I was initiated several years ago, the government advanced some \$8,300,000 for expenses and claims. Since 1944, the program has paid its own way and piled up an \$18,000,000 surplus. Beginning July 1 the Treasury will start getting back its original advance.

TITLE I may get more attention from this session of Congress. Several legislators have indicated they would like to see it more widely used for rehabilitation of sub-standard housing. One possibility: setting a five-year term for Title I loans, in place of the present three years.

AGITATION over interest rates, particularly the VA rate, continues. Congress is waiting to see what the new HHFA administrator may do about FHA rates. (Both VA and FHA have authority to raise rates above present levels). Industry groups met recently with a committee of the American Legion to present their case for a "realistic" VA rate.

> PRICE CONTROLS are fading fast. Most products and services affecting light construction already are decontrolled. CPR-93, covering construction services generally, is suspended. So are price ceilings on copper, aluminum, paint, lumber and wood products. All price controls will end April 30, when the law expires.

CMP CONTROLS over steel, copper and aluminum are no longer a problem. NPA has "open-ended" CMP. This means that any person who can get materials without the use of so-called "rated orders" may legally do so. Construction of projects which formerly required specific NPA approval may now begin without such approval.

SELF-CERTIFICATION remains a part of the homebuilding picture. But a builder who needs more than his authorized quota of steel, copper or aluminum may go shopping for it in the open market without restriction.

COMPULSORY WARRANTY legislation is in the works. A new bill (H.R. 2745) has been introduced in Congress, and is before the House Banking Committee for study. Hearings haven't been set. This type of law, generally opposed by the industry, has gained new support in Congress since last year's investigations into "defective" VA and FHA housing.

#### TRENDS-AB TELEGRAPHIC SURVEY

# Here's the Home Building Picture Across the Nation

**A** pronounced change in home building trends is indicated in this new *American Builder* survey, which highlights the necessity for progressive builders to keep posted with the latest available information.

Last minute opinions of home building authorities, received by telegraph a few days ago from every corner of the nation, are revealed here to show their thinking about the future of your business:

#### **Consensus:**

The present building scene is puzzling in some respects. Financing has reached a most critical stage. Even the big VA money stronghold, the Northeast, is tightening up in many sections. FHA loans are increasingly hard to find. Generally, Congress is being urged to end the crisis by raising interest rates.

Costs are tending to rise again, principally because of labor demands. Sales resistance continues about the same as three months ago, though a few areas assert they are free of this headache.

Despite these fundamental problems, builders are shoot-

#### What's the Mortgage Money Situation For New Home Financing?

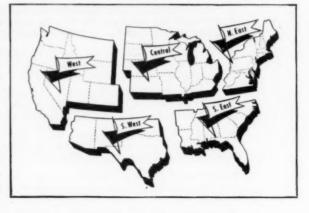
Northeast: Long Island boasts adequate supply "at no discount": Westchester, N. Y., and Springfield, Mass., "no trouble." VA tightening in Boston, Providence, Hartford, Conn.; Schenectady, N. Y., northern New Jersey; also Buffalo, where for first time banks ask 1 per cent service charge. South Jersey needs up to 3 per cent discount. No VA in Washington or Wilmington, Del. FHA limited in Richmond, Va. and Portland, Me. Pittsburgh envisions big market "when we get GI money and 10 per cent down."

**Southeast:** Conventional and FHA loans just fair at New Orleans, which finds VA down to rock bottom, along with Miami, Birmingham, Ala., Charlotte, N. C. and Nashville, Tenn. Some VA available at discount in Memphis but getting harder to place at 96 to 97 in Jackson, Miss. For first time, no region listed FHA loans as "adequate."

**Central:** All loans fairly tight in Detroit, Milwaukee and Louisville. Chicago says savings and loan groups are loaded with money but VA loans are hard to get at reasonable figures. Peoria, Ill., can get VAs only for 10-year term, while conventionals bear interest as high as 6.6 per cent. To revolutionize picture, generally rated impossible, Cincinnati urges interest boost to 4½ per cent. Cleveland notes mortgage money loosening up somewhat.

Southwest: Conventionals adequate if equities are large. FHA scarce in Arizona, Oklahoma, Texas Panhandle. VA very tight; costs 3-5 per cent brokerage in Houston.

West: VA financing virtually extinct without discount as high as 5 per cent in San Mateo, Calif. FHA moderate to tough throughout: improving at Spokane, Wash., but becoming progressively worse at Sacramento, Calif.



ing for a slight increase in starts over those of a year ago, aided by an abundance of manpower and materials. Considerable interest is being shown in the remodeling movement, but it has not yet affected very many of the larger operative builders.

#### Is Sales Resistance Increasing? In What Price Brackets?

Northeast: Troublesome brackets include \$9,500-\$13,000 in Springfield, Mass.; \$14,000-\$18,000 in Providence, decreasing; \$15,000-\$25,000 in Philadelphia. Pittsburgh blames financing for general resistance. Little or no sales problems found in Rochester, Buffalo, Long Island and Westchester county, N. Y., or northern New Jersey. Sales stiffen at \$15,000 in most other areas.

**Southeast:** Resistance begins at \$15,000 in South Florida, at \$10,000 in Birmingham. Ala., and is felt in all price categories elsewhere due to high cash requirements.

**Central:** Bracket of \$18,000-\$30,000 sluggish in Chicago, while Detroit finds slow going in \$13,000-\$19,000 range and Lansing, Mich., \$13,000-\$16,500. Resistance begins at \$12,500 in St. Paul: \$15,000 in Des Moines, \$25,000 in Louisville, \$30,000 in Minneapolis. Selling in all price groups is improving in St. Louis and Kansas City. Lincoln, Neb., finds sales "automatic" below \$11,000. Dayton, Ohio, reports buyers object to down payment, not the price.

Southwest: Sales problem increasing over \$8,000 in Pampa, Texas, and \$12,000 in Houston. Resistance above \$10,000 in San Antonio, Texas, and Phoenix, Ariz. Tulsa, Okla., reports no trouble at present in any bracket, but \$10,000-\$15,000 range is of increasing concern in Oklahoma City.

West: Noticeable sales slowdown above \$10,000 in Seattle, \$12,000 in Spokane, Wash. and Denver; \$14,000 in San Francisco, \$16,000 in Los Angeles. High down payments affecting all brackets in Sacramento, Calif. San Mateo, Calif., finds no real resistance to sales, says buyers recognize costs but can't meet financial terms.

(Continued on page 22)



#### OHIO WHITE & HAWK SPREAD Hydrated Finishing Lime

For finish coat plastering and general use. Meets Federal Specification SSL-351 type F and A.S.T.M. Specification C-6-49 type N. Ohio White in 25- and 50-lb., Hawk Spread in 50-lb. paper bags.

#### OHIO WHITE Autoclaved Finishing Lime

For finish coat plastering and general use. Meets A.S.T.M. designation C-206-49 type S and Federal Specification SS-L-351 type F, contains less than 8 % unhydrated oxides. It requires no long soaking. In 50-lb. paper bags.

#### **OHIO QUICK-MIX Masons Lime**

A pressure hydrated lime for mixing highly workable, waterproof lime-cement mortar. It requires no long soaking. Meets A.S.T.M. designation C-207-49 type 3 and Federal Specification SS-L-351 type M, contains less than 8 % unhydrated oxides. In 50-lb. paper bags.

#### OHIO EVER-READY Every-Purpose Hydrated Lime

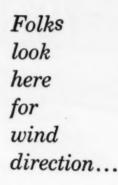
For general use. Packed in single 10-lb. paper bags or in containers of five 10-lb. bags each.

#### OHIO SANLIME FINISH Dry-Mix Plaster

For sand-finished interior plastering. All ingredients dry-mixed. Available in white and in colors: ivory, buff, pink, blue, and light green. In 100-lb. paper bags.

> Sold only through dealers. Write us for prices and descriptive literature, or ask us to have our nearby representative call on you.

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Looking in the 'yellow pages' of the telephone directory just "comes naturally" to 9 out of 10 shoppers. It's a national habit that's been building up for more than 60 years.

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WESLOCKS Are Your Best Lock Buy

Here's why WESLOCKS cost you less on the door-

- Factory assembled in three easy-toinstall units.
- Self-aligning feature reduces timeconsuming adjusting.
- Exclusive continuous-lip strikes eliminate detailed mortising of jamb.
- Job-tested installation aids greatly reduce labor costs.
- Modest first cost without sacrifice of quality.

These features substantially lower your installation costs...increase your job profits. They are reasons why WESLOCKS are your *Best Lock Buy*. Get WESLOCKS from your JOBBER or write for catalog.



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### Put the extra sales appeal of G-E Light Conditioning to work in your bathrooms for less than \$50

WOULDN'T you rather shave in the bathroom on the right? Of course you would—and so would the prospective "head" of every house you're building!

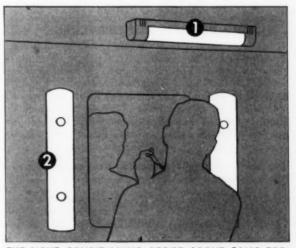
General Electric Light Conditioning — the right lamp in the right fixture in the right location — makes all the difference. The bathroom on the right is lighter, more comfortable. Light is spread evenly on both sides of the man's face and under his chin. No shadows to dodge. No glare in his eyes. He can see better — shave easier.

#### EASY TO INCLUDE IN YOUR PLANS

All you need to give your bathrooms all the extra sales appeal of the one on the right above are three fixtures that cost you less than \$50.00 installed. But what a difference that \$50.00 will make! Just by light conditioning your bathrooms you'll get an extra competitive "edge" — have more value that prospects can see for themselves.

There's a low cost G-E Light Conditioning recipe for every room in the house. For more information, contact your electric service company.

FREE BOOKLET! For your free copy of "See Your Houses in a New Light", the new Light Conditioning booklet for builders, write General Electric, Dept. 166-AB-4, Nela Park, Cleveland 12, Ohio.



THE LIGHT CONDITIONING RECIPE ABOVE CALLS FOR: 1. A ceiling fixture centered above washstand, about 12 inches from the wall.

 Wall fixtures placed on both sides of the mirror, each 15 inches from the mirror's center.

Use either 15 or 20-watt fluorescent tubes or 60-watt incandescent bulbs with opal glass shades.

GENERAL 🐲 ELECTRIC

#### TRENDS-

(Continued from page 16)

#### Home Starts in Next Six Months – Increase or Decrease?

Northeast: Majority of centers see no change and most of remaining cities look for slight improvement. Westchester, N. Y., expects 15 per cent jump. 10 per cent rise is forecast for Long Island, Buffalo, Albany, N. Y.; Portland, Me.; Springfield, Mass. and Wilmington, Del. Only decreases being predicted are 15 per cent in Washington, 10 per cent in Corning, N. Y. and 5 percent in Hartford, Conn.

**Southeast:** New Orleans anticipates sharp boost, perhaps 25 per cent; South Florida an increase up to 10 per cent. Other areas look for decline of 10 per cent; it may be 15 per cent in Birmingham, Ala.; 20 per cent in Nashville, Tenn., 25 per cent in Charlotte, N. C.

**Central:** St. Louis and Louisville see 20 per cent more starts; Lansing, Mich., and Sioux City, Iowa, 15 per cent; Chicago and Detroit about 10 per cent. Minneapolis-St. Paul region will be down 10 per cent; Dayton, Ohio, 15 per cent and Peoria, IIL, 25 per cent, the latter due to large carryover of unsold houses. Other centers range from no change to 10 per cent improvement.

**Southwest:** Little change anticipated, except Tulsa, Okla., up 20 per cent; Phoenix, Ariz., up 10 per cent, and Amarillo, Texas, down 20 per cent.

West: Increases are the rule, topped by 20 per cent in Spokane, Wash. San Francisco-San Mateo region looks for 10-15 per cent rise. No decrease impending except Sacramento, Calif., where starts may fall 5 per cent unless financing eases.

#### What's the Builder Outlook This Year For More Business in Remodeling?

**Northeast:** Pittsburgh notes FHA trying to drum up interest but finds builders have enough new business to keep remodeling from becoming attractive. More such work is expected in Washington, Providence, Rochester, Portland, Me., Albany, N. Y., Schenectady, N. Y. and Richmond, Va. Hartford believes remodeling prospects will be good, "but builders will require time to enter a field relatively new to them."

Southeast: All reporting centers, except Memphis, look for rising trend.

**Central:** Milwaukee reports some builders have withdrawn from conventional field to do nothing but remodeling. Kansas City looks to its April 12-18 home show to spur this market. Builders who go after the business are booking plenty of jobs, says St. Louis. St. Paul finds that sales resistance is forcing more builders into remodeling. Consensus is topheavy for much additional remodeling activity this year.

Southwest: Increased activity seems limited to Houston and Oklahoma centers.

**West:** Most operative builders turning thumbs down. Principal exceptions are found at Los Angeles and Spokane, Wash.

#### Where Are Building Costs Headed In the Next Six Months?

Northeast: Rise of 5 per cent possible in Buffalo, Albany, Corning and Westchester County, N. Y.; Philadelphia and Wilmington, Del., 4-5 per cent in South Jersey and of 3 per cent in Portland. Me. Long Island carpenters, seeking boost from \$2.90 and \$3 to \$3.40 an hour plus 20 cents an hour for pension fund, may upset stable cost applecart there. Labor seeking increases of 21/2 to 53 cents an hour in Philadelphia. Land costs moving up in Rochester. Undetermined increases also predicted for Syracuse, N. Y., and Reading, Pa., regions.

Southeast: Mostly no change, though Miami and Charlotte, N. C., see 3 to 5 per cent increase, and Jackson, Miss., one of 1 to 3 per cent.

**Central:** Detroit and Kansas City fear 5 to 7 per cent rise inevitable; Des Moines puts it at 2 to 5 per cent and Cleveland at 5 per cent. Restrictions have upped average cost of a lot by \$800 in Dayton. Ohio. Most other centers expect to hold the line, with fluctuations evening out, unless labor secures big pay increases. Columbus, Ohio, believes costs may be forced up by labor competition of atomic plant.

**Southwest:** Amarillo, Texas, looks for 5 per cent added cost, Oklahoma City a 2 per cent increase and Phoenix, Ariz., and undetermined rise. Otherwise stable.

West: 10 per cent boost slated for San Mateo, Calif.; 5 per cent virtually everywhere else; except Denver, which expects to stand pat and Spokane, Wash., with a 2 per cent drop forecast.

#### Is the Labor Supply Adequate?

Northeast: Sufficient manpower everywhere, though Portland, Me., expects tight supply in summer. Carpenters and bricklayers now in 10 per cent oversupply in Washington area. Plumbers somewhat short in Camden, N. J., which notes that general labor supply is adequate, "though skill leaves something to be desired."

**Southeast:** Adequate supply throughout. Charlotte. N. C., reports surplus. Large non-residential jobs may create shortage in trowel trades and electricians at Miami.

*Central:* No shortages, but Columbus, Ohio, expects atomic plant to draw labor away later this year. General surplus in St. Louis.

Southwest: Excess labor at Tulsa, Okla., and Amarillo, Texas. Adequate elsewhere.

West: Carpenters "long" by 10 per cent in Sacramento, Calif., 3 per cent in San Mateo, Calif. No shortages.

#### Are Materials in Adequate Supply?

Northeast: Satisfactory quantities available throughout area.

Southeast: Surpluses the rule; no problems.

**Central:** Copper tight in Des Moines, Iowa. Materials adequate to plentiful elsewhere.

Southwest: Supplies plentiful in all reporting centers.

West: Adequate, but Sacramento, Calif., notes slow delivery of some manufactured equipment.

AMERICAN BUILDER

# THIS ARGUMENT SURE Holds Water\*

Why the Masons said:

"Yes, Lone Star Masonry Cement Does Make a Smoother, More Plastic Mortar!"



AVONDALE ELEMENTARY SCHOOL, Amarillo, Texas Architects: KERR & SHIVER General Contractor: TIMMONS CONSTRUCTION CO. Masonry Contractor: VAN DORAN BRI-TICO CO. Lone Star Masonry Cement: CROWE-GULDE CEMENT COMPANY all of Amarillo



High Water Retention is the basis of workability, plasticity and bond. In Lone Star Research Laboratory, this standard test simulates sucking action of brick. Suction is applied to mortar for one minute. Difference in flow of mortar, before and after test, indicates plasticity and water retention. Write for new Masonry Booklet address Lone Star Cement Corporation, 100 Park Ave., New York 17 —or nearest office, below.

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THE ENTIRE CONSTRUCTION FIELD

• "Give us a ready-to-use Masonry Cement which we can always rely on for a plastic, workable mix," Masons said, "a buttery, smooth-spreading mortar with good yield and minimum droppage, for economical, high-speed performance."

LONE STAR MASONRY CEMENT fits the Masons' specification like a snug-fitting glove. Because of unusually high water retention, this Mortar remains plastic so brick or block can be properly bedded and good bond obtained. There's less lost motion—you can go header-high before striking joints—clean, smooth, glossy joints that are the good Mason's hallmark.

The country over, attractive structures like this well-designed Texas school reflect the quality of Lone Star Masonry Mortar in the hands of skilled craftsmen-Masons who insist on this Cement for economy in quality construction.

LONE STAR CEMENT

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APRIL 1953



house, utmost consideration was given to quality materials that were low in cost and could save time and labor. With this in mind, Alex Simms of Dayton selected SONOAIRDUCT and joined the hundreds of other builders who have discovered the "trade secret" of using fibre duct for slabon-ground perimeter heating systems. Important savings over clay and galvanized pipe!

Write for complete information and prices crawl space.





Light weight SONOAIRDUCT was spe-

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lines in loop, radial or lateral systems.

Sizes 2" to 24" I.D., up to 24' long. Can

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Illustrated above is one of many examples of how ingenious builders everywhere are using Murphy Beds as the answer to the popular demand for an "extra" room.

The Murphy Bed illustrated is only one of several Recess Models, some requiring as little as 13" depth. Other models include Pivot and Roller types. All are built to receive standard mattresses to assure maximum sleeping comfort.

Send today for complete details on all Murphy Bed Models and Murphy Cabranette Complete Kitchens.

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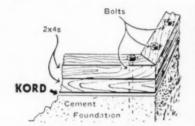
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A New Twist

THAT SAVES! by Sterling



KORD is the prefabricated caulking compound designed to reduce labor costs and waste. One of its many uses is to seal sills.



The sketch shows one of the uses of KORD by one of the nation's leading builders, the Levittown homes, to weatherproof the sills.



STERLING - the nation's most complete caulking and sealing service.

KORD is produced by the makers of time-tested Sterling glazing and caulking compounds.

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Again pioneering in the development of fine quality equipment for homes and apartments, Auth offers Apartment House Mail Boxes with stainless steel fronts. No other mail box face-metal has the same resistance to corrosion and abuse as satin-finished stainless steel. With a minimum of care Stainless-Steel-Front Mail Boxes will have the same fine appearance many years after installation as they had when installed. Recognizing this fact the Metropolitan Life Insurance Company, the New York City Housing Authority, and many other leading developers of large scale housing have specified and installed Auth Stainless-Steel-Front Mail Boxes in all their recent developments.

Auth Mail Boxes are officially approved by the U.S. Post Office. They are made in gangs of 3 to 13 receptacles to a gang; by joining gangs together any number of receptacles may be installed.

Other outstanding features are a wide one-piece trim, rust-proof lead-coated steel interiors, and extra-heavy reinforced doors. Available with or without push buttons to ring bells or chimes in apartments. In addition to satin-finished stainless steel, brushed brass or sprayed brass finishes are available.

For complete details on Auth Apartment House Mail Boxes, write to the Auth Electric Company, Inc., 34-20 Forty-Fifth Street, Long Island City 1, N. Y., or consult your telephone directory for local office.



# ANNOUNCING THE RESULTS OF THE CRANE IDEAS COMPETITION

Crane holds nation-wide contest to stimulate interest in better bathrooms and kitchens



There were so many entries in the Crane competition it required four large, specially built chests to ship them to the judging place. The distinguished Jury of experts consisted of Alan Brockbank, Home Builder, of Salt Lake City, Utah; Royal Barry Wills, Architect, of Boston, Mass.; Glenn Stanton, Architect, of Portland, Ore.; George Dahl, Architect, of Dallas, Tex.; and Henry Dreyfuss, Industrial Designer, of South Pasadena, California,



In order to discover and develop new ideas for bathrooms, kitchens and utility rooms-rooms of increasing importance when it comes to selling houses-Crane has just held a nation-wide architectural competition.

Nearly 500 architects, draftsmen and designers submitted entries, and a distinguished jury picked 32 winning designs to share \$23,000 prize money.

You'll see the very best of these prize winnersthe newest, most advanced, most practical ideas of all-in forthcoming Crane advertising.

Crane is already building some of these rooms to photograph for publication; and details will soon be yours for the asking. Watch for the announcement!

#### FIRST PRIZE WINNERS

Bathroom for home costing up to \$25,000 J. A. Curtis, Mass. Inst. of Technology

Bathroom for home over \$25,000 Charles West Jones, Jr., Glendale, Calif.

Kitchen for home in any price range Richard C. Brigham, Cambridge, Mass.

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**PLASTERER** – The light weight of Permalite/plaster – about <sup>1/3</sup> the weight of sand/plaster – lifts a heavy load off the plasterer's shoulders.. makes plastering easier, faster, better, because Permalite/plaster has excellent workability.



BUILDER – Builders like Permalite/ plaster for three reasons. Light weight means the job goes quicker-easier to mix and handle on multi-story structures. Light weight, saving as much as one ton of dead weight per 100 sq. yd., also means less settling, less chance of cracks. (Permalite/plaster gives up to 42% greater crack resistance.) And Permalite/plaster also gives increased fire resistance.



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Garage doors, Closets, Out buildings,

TOU KNOW that Rim Night Latches should L be used in every house you build. It is not a question of where, but which latch you choose to install. This Eagle auxiliary lock with a five pintumbler mechanism and solid brass bolt has the style, plus the security that every new house deserves.

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New lower cost of Wesix Automatic Electric Baseboard Panels plus new simplified installations means you can equip your homes with perfect, modern perimeter heating at a fraction of former cost.

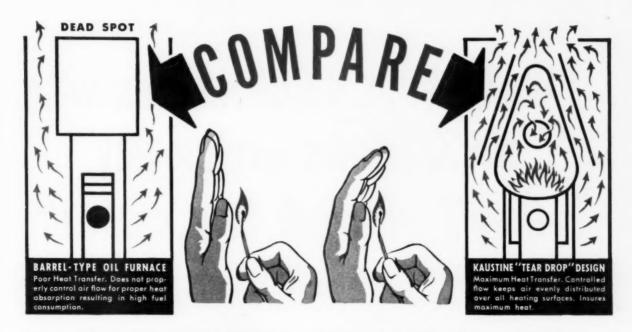
Ideal for homes with "picture" windows or rambling style, Wesix Baseboard Panels can be installed as total house heating (economical, too, wherever electric power "end rate" is 2c per KWH or below) alone or combined with famous Wesix Wall Furnaces or as auxiliary aid to central furnace systems.

Send your next set of plans and insulation specifications to your nearest Wesix office for free engineering recommendations and operating cost data.



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AMERICAN BUILDER



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**THE POPULAR JERSEY "75"** The OIL FIRED HIGH BOY Jersey "75" Automatic Forced Warm Air Furnace. Requires only 3½ square feet of floor space.75,000 B.T.U.'s. Chrome steel fire pot liner. Fully automatic controls. Shipped ready to install. Weight 324 lbs.



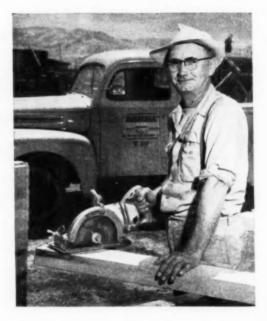
# "We've built 4,000 homes with SKIL Saws exclusively... they'll outwork any make!"

#### - says Frank Baxter, Cutting Yard Foreman, Blackfield Construction Company, San Francisco, California

Now building another 400 houses, this company specializes in the development of new communities and is the two-time winner of the National Neighborhood Development Contest.

Comments Frank Baxter, "When you build this many houses as fast as we do, you must have saws that take plenty of abuse. Here in the cutting yard, our SKIL Saws are going *all day*, because we pre-cut most of the lumber in this project. If our saws give out, we'll have a crew of carpenters idle. We don't gamble—we use SKIL Saws!"

The fact that they rely on SKIL Saws alone is finest praise for SKIL Saw quality, sturdiness and performance.





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#### "YOU CAN SEE THE CUT WITH A SKIL SAW!..."

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SKIL SAW—Model 27 One of 13 models.7%" saw cuts' 0" to 2%". Bevel cuts 1%" at 45". Time-proven SKIL worm gear transmits tremendous power for tough cutting.





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for the light construction industry

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### 1953 American Builder Catalog Directory

"Not just *what* to do, but HOW TO DO IT" is the underlying theme of this year's AMERICAN BUILDER CATA-LOG DIRECTORY. With another record year of building starts well under way, builders and contractors are more than ever concerned with cost-cutting practical data which will help them build—and *sell*—homes and other buildings.

The first chapter of the 1953 AMERICAN BUILDER CATALOG DIRECTORY contains detailed plans, drawings, and renderings of seven typical structures, including residences, farm, and commercial buildings. These are presented in the same manner as the regular "Blueprint Home Of The Month" in other issues of the AMERICAN BUILDER, and will serve to:

 Pin-point application of both familiar and new building products to typical structures and construction situations;
 Highlight most of the common and some less common but important construction techniques;
 Provide the working basis for specific plans and data sheets in the other chapters in the book—not just "What to do" but HOW TO DO IT throughout.

The readers of the AMERICAN BUILDER comprise the bulk of independent builders in the country—men who are the backbone of a light construction industry which draws its strength from the concepts of private housing and private enterprise. These builders account for the vast majority of homes and small commercial buildings which are erected, and must have at their fingertips specific information of this kind on new products and building techniques as they are developed.

With over 1,000,000 building starts predicted for 1953, and with more new building materials available since 1946 than in the preceding thirty years, builders have more need than ever for such practical, cost-cutting data. AMERICAN BUILDER'S 74 years of publishing experience in the light construction field qualifies this magazine particularly well to provide builders with that information and service in this 1953 AMERICAN BUILDER CATALOG DIRECTORY.

The structures selected to provide typical construction problems and situations include a couple of old favorites and some very new and modern designs. They are:

- PLAN (1) A 1-story ranch type house with partial basement and crawl space. No garage, but one is provided for in the plan.
- PLAN (2) A modern ranch type house without basement, with attached garage, brick construction.
- PLAN (3) Two-story colonial with full basement and attached garage, modern designing throughout.
- PLAN (4) Large, luxury ranch type home with attached 2-car garage, brick and field stone construction, double glazing, air conditioning, lots of "extras." (Continued on page 37)

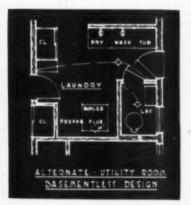






Designing a "Ranch" type house for a narrow lot presents a basic challenge which confronts most architects and builders in heavily built-up urban areas. Mr. Anicka solved this with a plan for a house which can be built on a 50-foot lot with adequate driveway at the side and garage either detached at the rear of the lot or located at the side of the house connecting to the utility room.

Privacy at the rear of the lot is increased by the fence running



### economical design is flexible, gives privacy on narrow lot

#### **Designed** by

Walter T. Anicka, Architect Ann Arbor, Michigan

from house to lot line—also by side location of garage if lot width permits.

While the plan shows partial basement and crawl space, the house can be built either with or without basement. Additional flexibility is gained by making it possible to install a stair to an attic over the basement stairs and increasing the pitch of the roof if additional rooms are desired.

Planned with a simple perimeter outline, approximately 1250 square feet of living area is provided in the basic plan. A single load bearing partition through the center of the house simplifies construction, providing a maximum span of joists and rafters of 14 feet.

Wiring is planned to allow for adequate outlets in every room with special attention paid to kitchen and utility rooms where major appliances may be installed.

Plumbing is economically arranged with lavatory and bathroom fixtures located back-to-back.

Room layout provides a minimum of hall area with no waste space. Traffic patterns from room to room and between living areas are simple and direct.

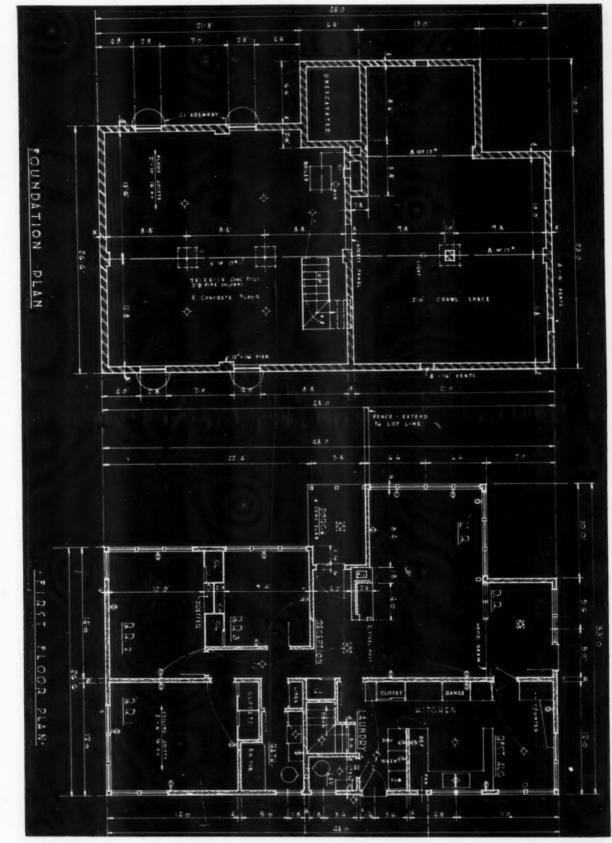
Bedroom No. 3 can be used as a study with an entrance door to this room leading directly to the reception hall instead of to the interior hall as now indicated on the plan.

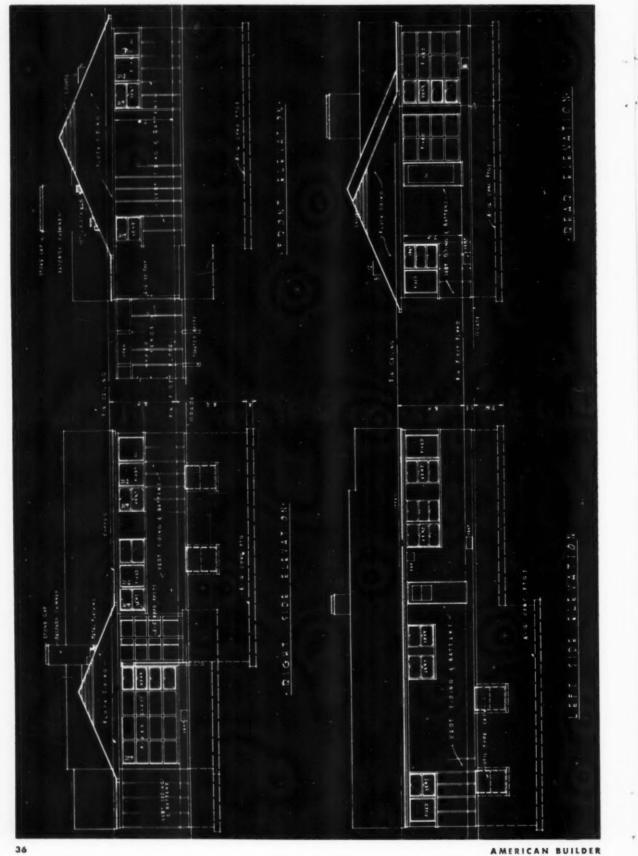
The architect suggests that the exterior facing of the house can be either plywood, horizontal or vertical wood siding, or a combination of these or other materials.

Popular features of the plan which make for added living pleasure include a natural wood fireplace, efficient kitchen layout, and ample closet space.

"Walls of glass" are provided off the living and dining areas, behind the privacy of the house-tolot line fence and at the rear of the structure to give a pleasant view of the back yard.

Optional arrangement of utility room provides space for heating unit in case house is built without basement.





#### 1953 American Builder Catalog Directory

(Continued from page 33)

- PLAN (5) A modern dairy barn of functional design with feeding and loafing areas, self-feeders, milking partor and milk house.
- PLAN (6) A small, compact, factory building built around the client's manufacturing processes.
- PLAN (7) A unique store with provision for two or three tenants, brick construction, effective metal and glass store front treatment.

The 16 fact-packed chapters that follow cover as completely as space permits every modern construction method and building product of particular interest to the builder in the light construction field. Each chapter contains:

- (1) Specific product or building applications;
- (2) Plans and detail drawings;
- (3) Reference charts, tables, data sheets;
- (4) How-To-Do-It and How-To-Install information:
- (5) Suggested sources of additional specific information;
- (6) Cost-cutting suggestions for profitable building.

This issue of the AMERICAN BUILDER CATALOG DIRECTORY, marks several improvements over its predecessor. In addition to the alphabetical directory of building products contained in the back of the book, each chapter is outlined for ease in finding specific information. Supplementing the alphabetical listing of products are several others. One is an alphabetical listing of brand names identified with the producers of those products. Second, is an alphabetical listing of building products manufacturers and their addresses.

In the main reference data section which follows this "lead" chapter, advertising is included in the chapter which treats the products or construction techniques advertised. This association of advertising with reference data not only saves time for the reader in helping him find quickly both technical data and advertising on any particular subject, but gives him a wealth of additional technical information in the many data sheets provided by manufacturers on their various products. This type of make-up is possible only through great cooperation from advertisers, their advertising agencies, and the numerous trade associations who made many valuable contributions of information and illustration to this book.

The importance of this reference data to builders in the light construction field is clear: there is a continuing market for homes which have been started and will be started this year. While rising costs have forced some purchasers to buy a smaller home than they might otherwise wish, and while changes in credit have made some phases of home building uncertain, it is apparent that the mild shift from a seller's to a buyer's market is coming about because through private construction the housing needs of the nation are finally being met.

1953 home buyers are more choosy, shop around more for quality and durability and livability in a house. AMER-ICAN BUILDER is proud to serve the light construction industry in meeting these needs by providing technical information services such as this in the 1953 AMERICAN BUILDER CATALOG DIRECTORY. Windows, doors and frames

Garages: doors and operators

Hordware builders and

Heating, ventilating and a conditioning

Wiring, fighting, electric fixtures, electrically operated devices

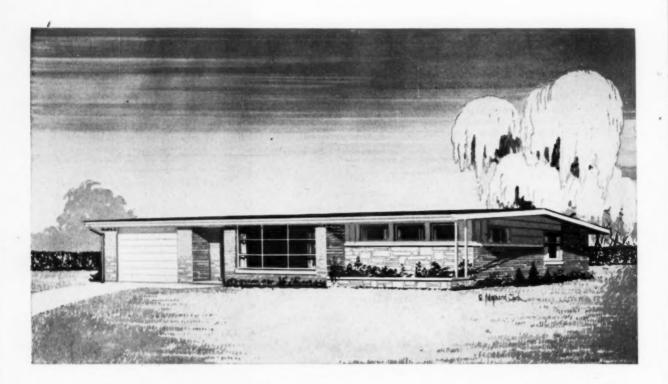
Plumbing-fixtures and ac-

Prefabricated atructures and

History Contractory

• appliances and built-ins

Paint and





### designed for space economy and maximum variation to suit client

Designed by A. J. Del Bianco, Architect Chicago, Illinois

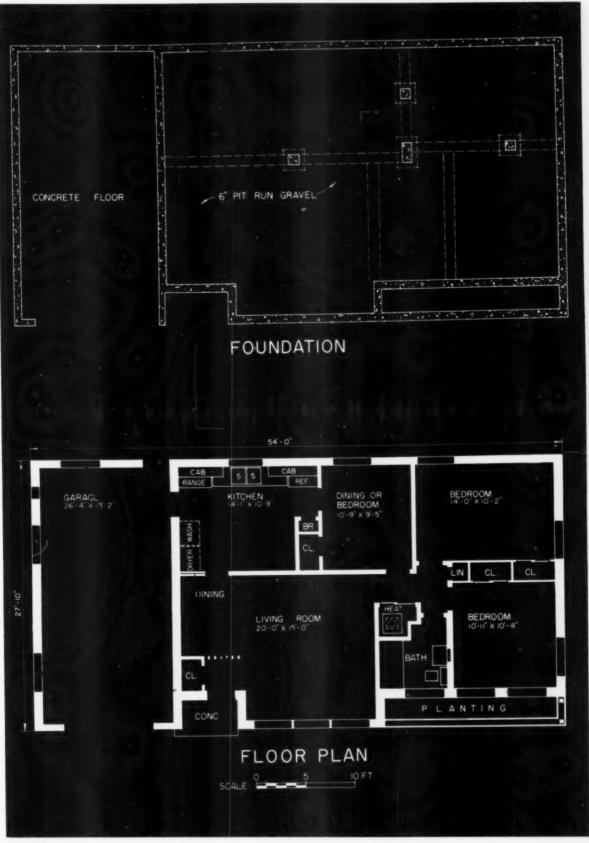
This efficiently arranged ranch-type home is designed to bring maximum economy of useful space. Rooms are arranged not only for shortest traffic patterns, but so that the housewife in the kitchen can easily get to either bedroom or the bathroom without passing through the dining and living areas.

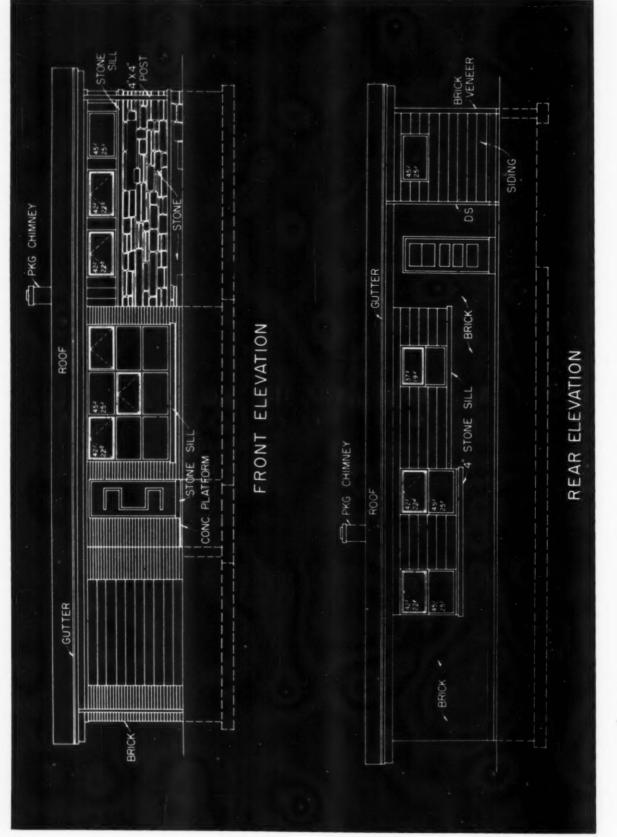
Forced warm air perimeter heating is provided with 6-inch ducts in the edges of the floor slab. This fits in economically with this particular house plan, which is designed to permit a maximum number of variations to suit site, client, and other conditions. A combination insulation and moisture barrier is provided all around the edges of the slab floor.

One interesting feature of this design is that the garage is unusually deep. Space is planned for either storage in the end of the garage, or the creation of a small utility room or laundry by simple partitioning. The solid brick walls are faced on the inside with  $\frac{1}{2}$ -inch gypsum board with taped joints, furred out from the brick. Heavy insulating board with built-in vapor barrier covers the ceiling.

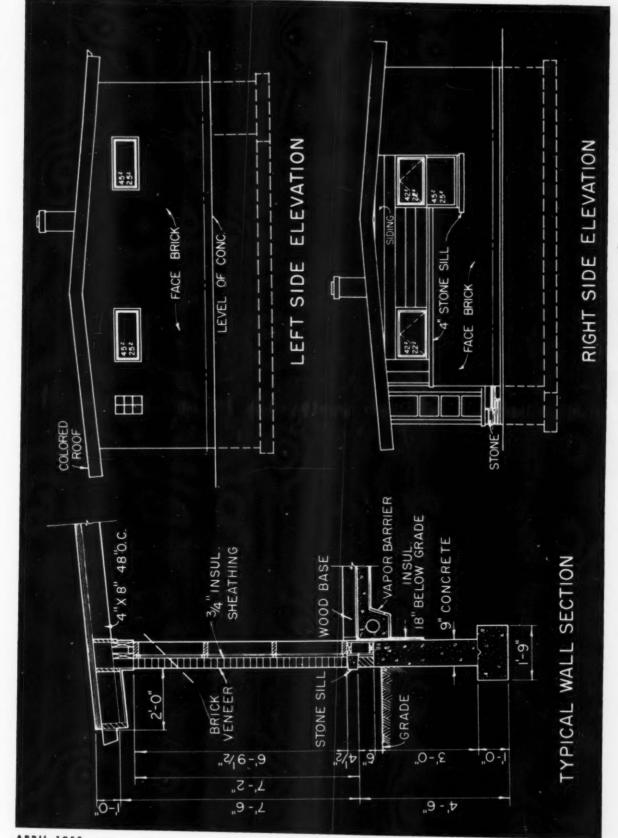
The window treatment is interesting in that every pane of glass in the house is of the same dimensions. All windows are designed for standard size single or double glazing, making installation and subsequent replacement if necessary an easy matter. The windows themselves are of various types, some being permanently fixed, and others of the awning type to open out.

Exterior siding is a combination of brick, redwood bevel siding, and either field stone or craborchard stone. With the numerous variations possible in room arrangement and locating the garage at either end of the house, suitable changes in siding materials easily give each home built on this plan a distinctive appearance.





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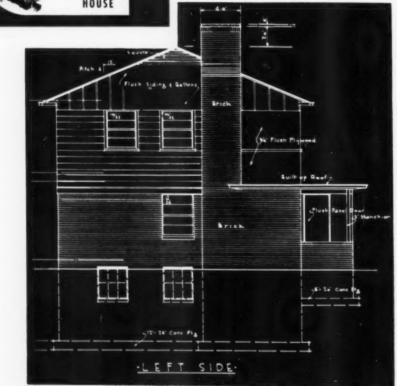




### PLAN 3 TWO STORY HOUSE

### modernism in basic colonial

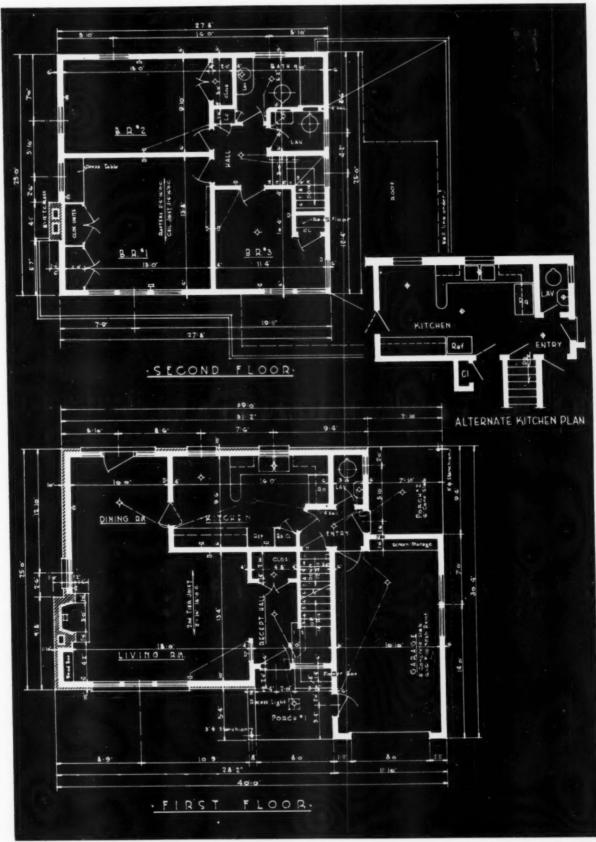
Designed by Walter T. Anicka, Architect Ann Arbor, Michigan



This basic plan satisfies all the requirements of the "two children one car" small home buyer. The architect, recognizing the advantages of the 28x25 foot two-story Colonial house in simplicity and economy of construction, maintained the over-all shell and developed modern content and design.

Increased glass area is a keynote; another is the open plan of living room and dining area. The forward position of the attached garage and the porch extention are tied to the front elevation by means of the continuous roof line which carries over and forms a canopy over the front windows. The flat garage roof further emphasizes the effect.

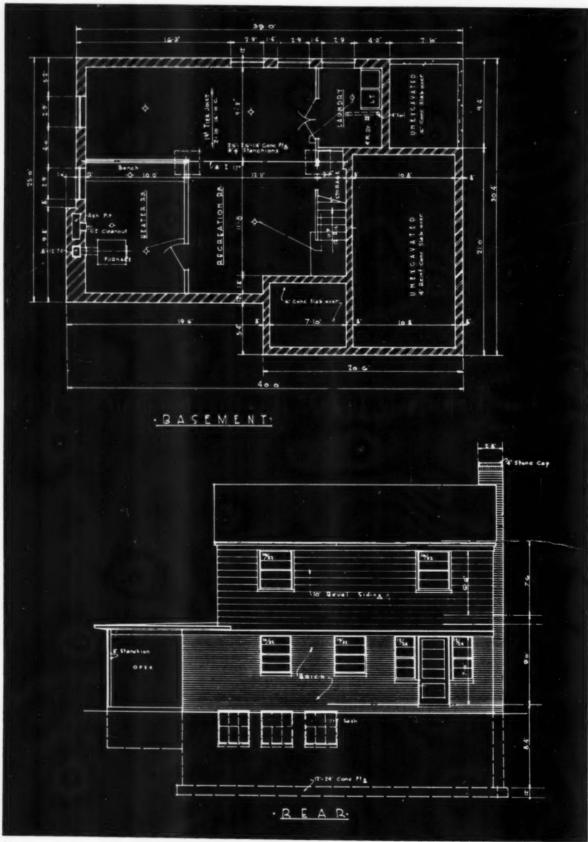
An added upstairs feature is the second lavatory; note that all plumbing is on one stack. If second floor lavatory is not required, it could become a cedar closet. Another alternative is presented on the alternative kitchen plan which would provide direct access from the front hall to the kitchen.



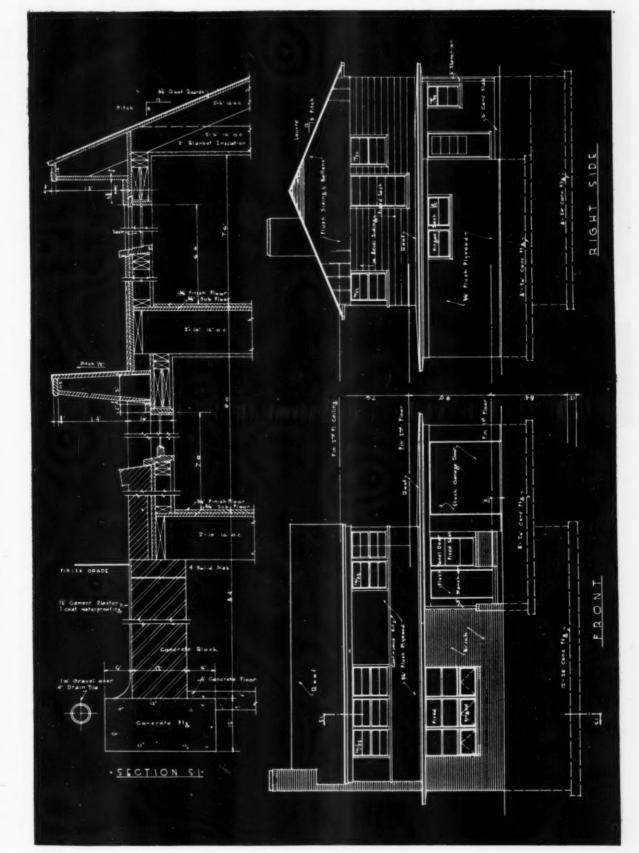
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Designed for cozy living, this spacious ranch-type home has the kitchen located in the front of the house so that the housewife can easily command both entrances to the building from one spot.

The living area includes space for dining, a large drop-leaf table providing space for formal dinners. Bedrooms are segregated for privacy, with built-ins including wardrobes and storage-wall treatment between bedrooms and baths.

A dramatic sliding glass wall in the study of opaque patterned structural glass admits sunlight from the entrance hall and may be

### design for luxurious living a home that "has everything"

Designed by Martin H. Braun, Architect Oak Park, Illinois

opened for space or closed for privacy. Liberal use is made of tile and glass on bathroom walls.

Lavatories are built-in with laminated plastic tops over dressing table. Plumbing is copper throughout. A 5-ton cooling and heating unit provides gas-fed forced warm air heat in winter and complete air conditioning in summer.

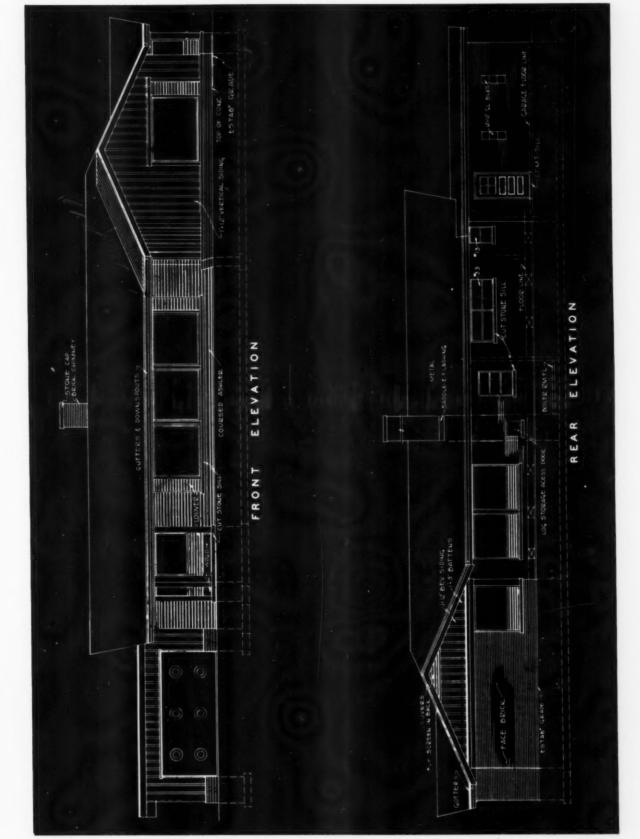
Modern electrical treatment includes safety outlets throughout, cove lighting and strip-lighting behind valance boards over cabinetwork, and pinpoint lighting over dining area.

The two-car garage has a 4-piece sectional door with radio-controlled operator. An automatic sprinkling system waters the lawn and ancient trees which were kept in place through careful site planning.

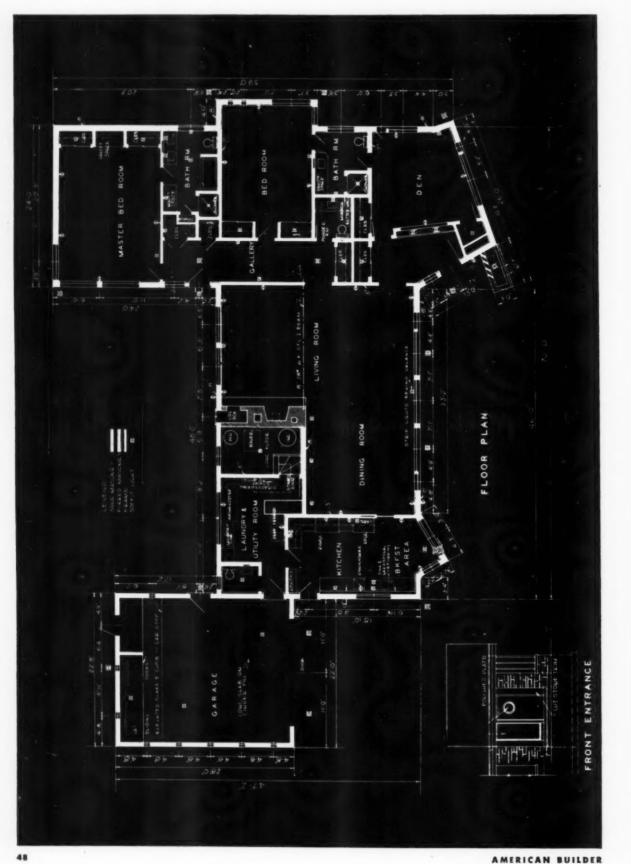
Literally wrapped in insulation, floors, walls, and ceiling are covered with glass wool. Flooring is varied, with carpeting on plywood over furring strips, cork tiles, and plank oak being used.

The custom-built fireplace has a raised hearth, with woodbox loaded from outside the house. The brown hand-made ceramic tile roof drains into copper gutters. Double glazed windows have large glass areas fixed in place with vent sections at sides or below.





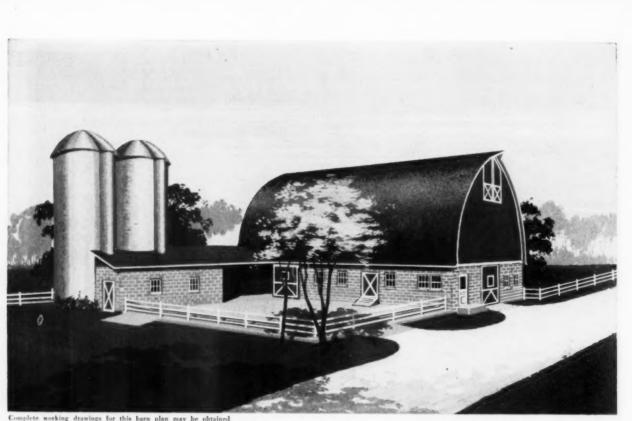
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working drawings for this barn plan may be obtained from Midwest Plan Service, Ames, Iowa.



### planned for efficient farming

Adapted from Midwest Plan No. 72310 The Midwest Plan Service is an official, self-supporting, activity of fifteen land-grant colleges and universities with headquarters at Iowa State College, Ames, Iowa.

This modern dairy barn is planned for maximum efficiency, utilizing modern concepts of feeding areas, loafing areas, mechanical handling of feed, and convenient milking.

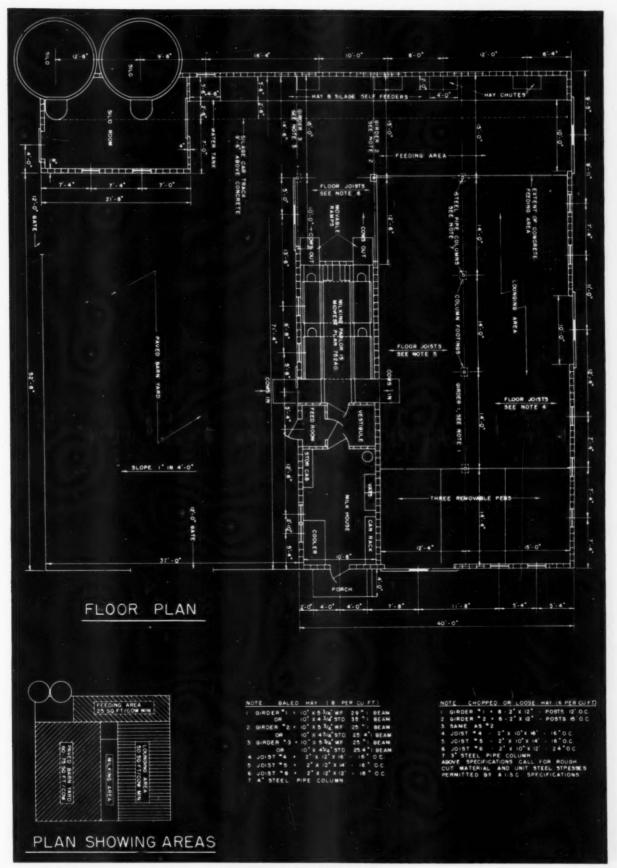
Concrete footings and foundations support concrete block walls which bear 2 x 12 rough cut joists for the loft. The lines of the roof are supported with interior trusses arranged to give maximum open storage space, as well as by interior cantilever hay and wind brace.

Loft areas to segregate kinds of feed have wire fence partitions to allow adequate ventilation. Space is provided for straw and chopped hav storage, with drop chutes located above feeding areas which are also serviced by conveyors from the silos.

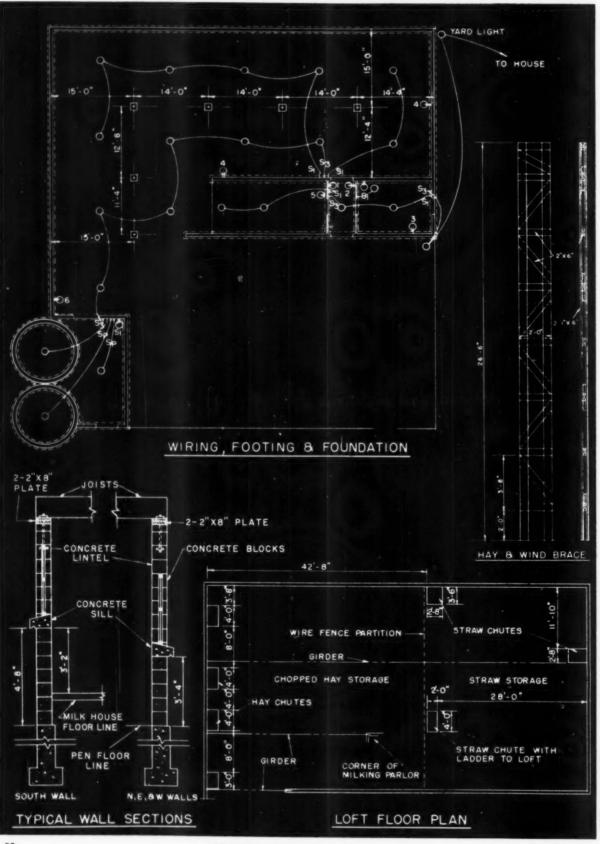
The milking parlor and milk house have a concrete floor elevated above the earth floor of the main pens and loafing areas. Milking parlor is reached by gentle ramps which guide the cows through the milking stalls and out the end of the milking parlor through similar movable ramps. The convenient milkhouse provides ample space for storage and cooling facilities.

Two concrete silos are provided to give ample storage for silage, with provision in the plan for mechanical conveyance of silage to the hay and silage self-feeders located below the hav chutes.

Three spacious and removable calving pens are also provided for, as are a paved barn yard, concrete floor in feeding area for easy cleaning, and easily operated hay doors to the loft.

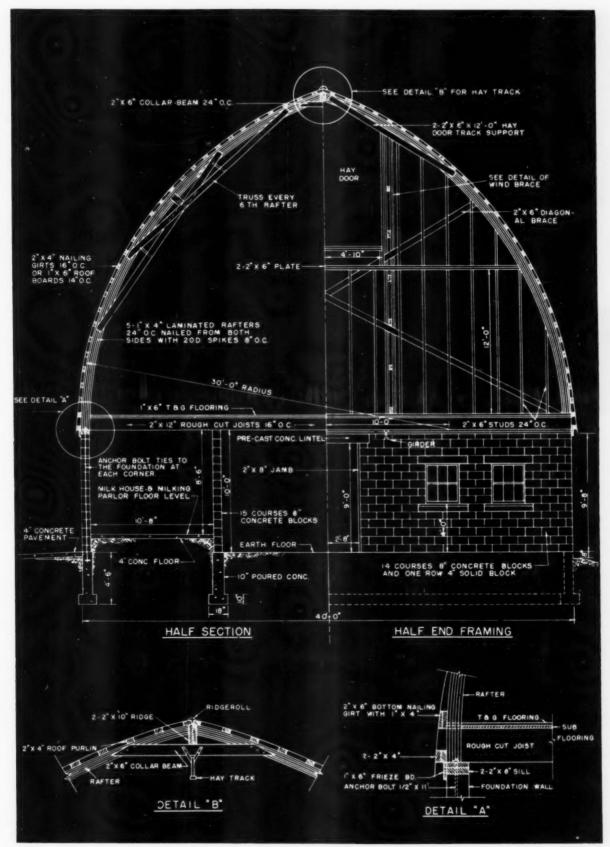


Adapted from Midwest Plan No. 72310



Adapted from Midwest Plan No. 72310

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Adapted from Midwest Plan No. 72310





This compact, modern factory building, designed for a molded plastic products manufacturer, combines a number of interesting architectural features. With over-all dimensions of approximately 100 x 90 feet, it incorporates a floor plan for efficient manufacturing operations with flexibility for changes in production layout plus future plant expansion by building additions in the future.

Built around the operations of the client, foundations and footings support a massive concrete slab floor and brick and concrete walls with attractive face brick.

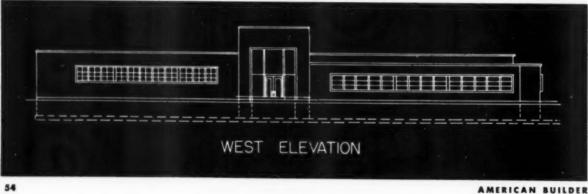
### building the plant around the manufacturing process

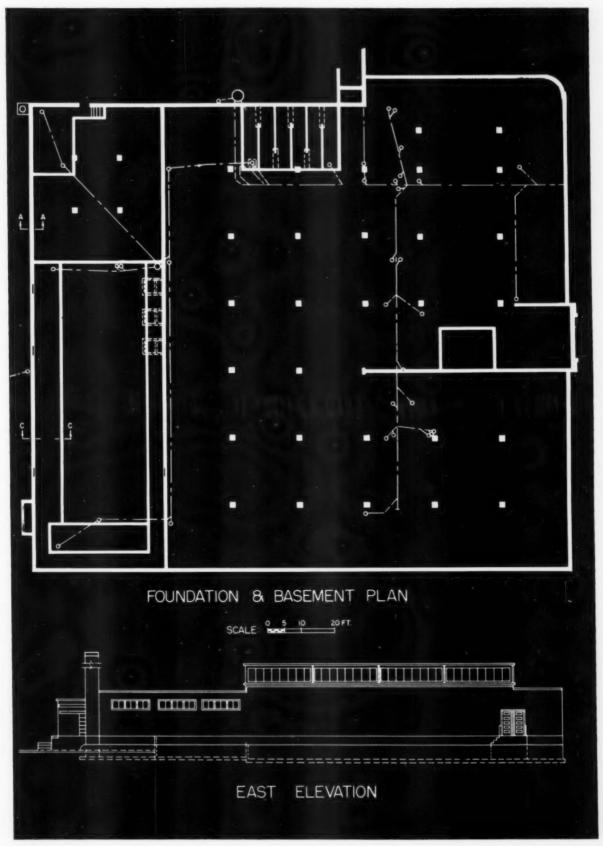
Designed by Holsman, Holsman, Klekamp, and Taylor, Architects Chicago, Illinois

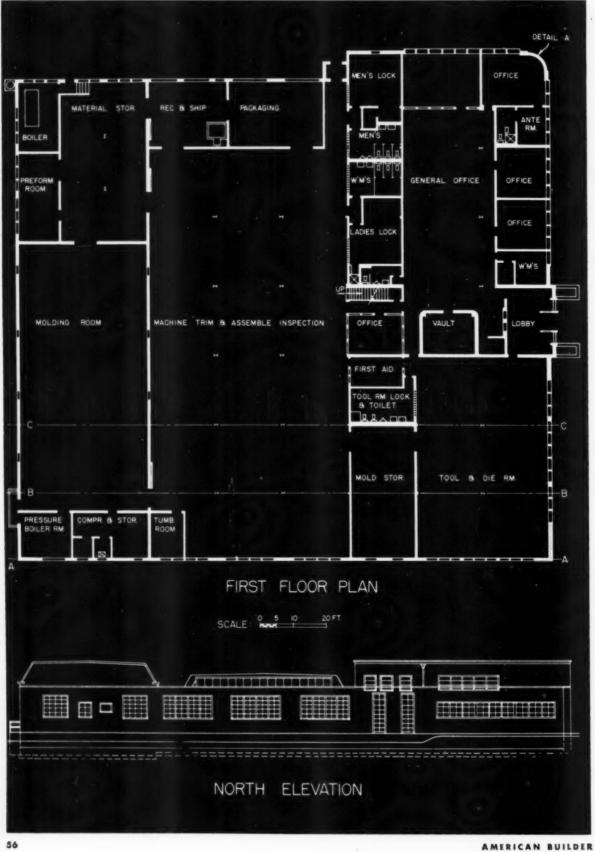
The offices are completely air conditioned, heating throughout being provided by a forced hot water system using convectors. An employees' lunch and recreation room is provided in the upper deck mezzanine over the lobby and main entrance. This two-level section of the building not only adds interest to the ground-hugging horizontal lines of the elevation, but aids structurally in creating two levels of roof to effect greater headroom in the tool and die room and portions of the molding room and machining and assembly departments.

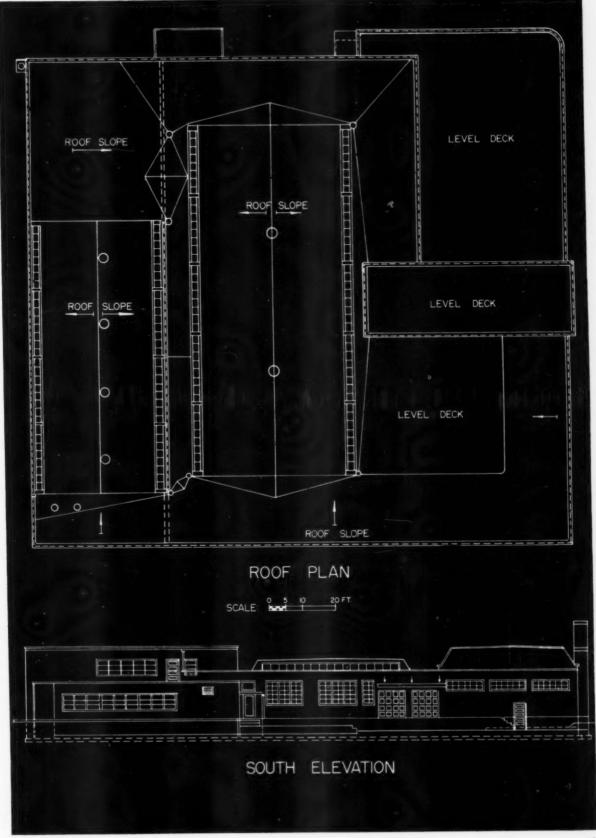
Long-span overhead trusses and joists were used to create wide areas of clear floor space. Large window areas in walls are supplemented by semi-clerestory window treatment in roof elevations to simplify interior lighting.

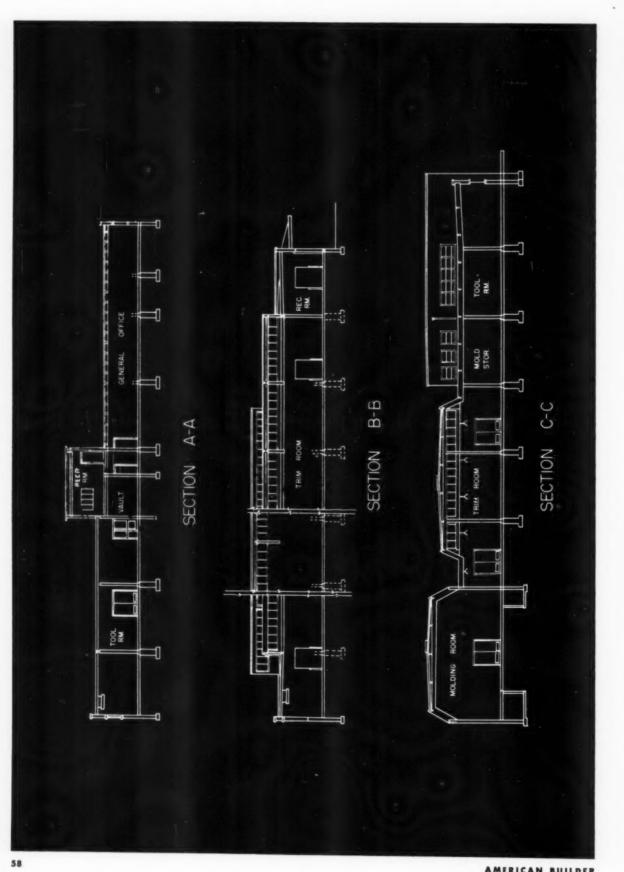
A structure such as this presents a number of challenges to the small builder, but the modern techniques and materials at his disposal make it possible for him to construct buildings of this type after careful designing and engineering around the production processes and operations of the company they are intended to house.

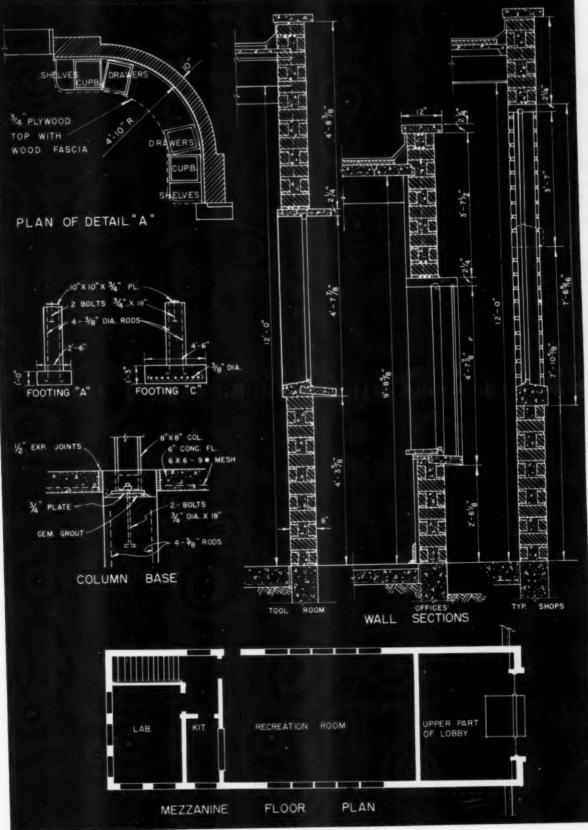
















Because this modern store building was designed to be subdivided into either two or three stores, 3 separate heating plants, toilets, front entrances and rear entrances were provided in the plan. Each store is heated with a ceiling-suspended oil fired warm air heating unit with a blower. Each also has a 30-gallon domestic hot water heater.

Built without a basement, it has a 4-inch concrete slab floor laid over steel mesh. Long-span joists support the roof and give complete freedom of floor space for aisle, counter, and island display arrangement by the store tenant.

### windows and entrances make customers "stop and shop"

Designed by

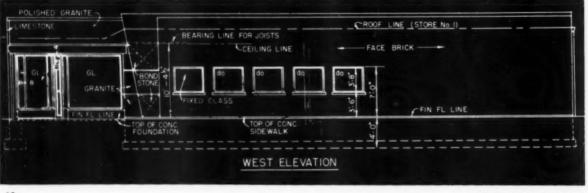
Edwin H. Mittelbusher & Edward M. Tourtelot, Jr., Architects Chicago, Illinois

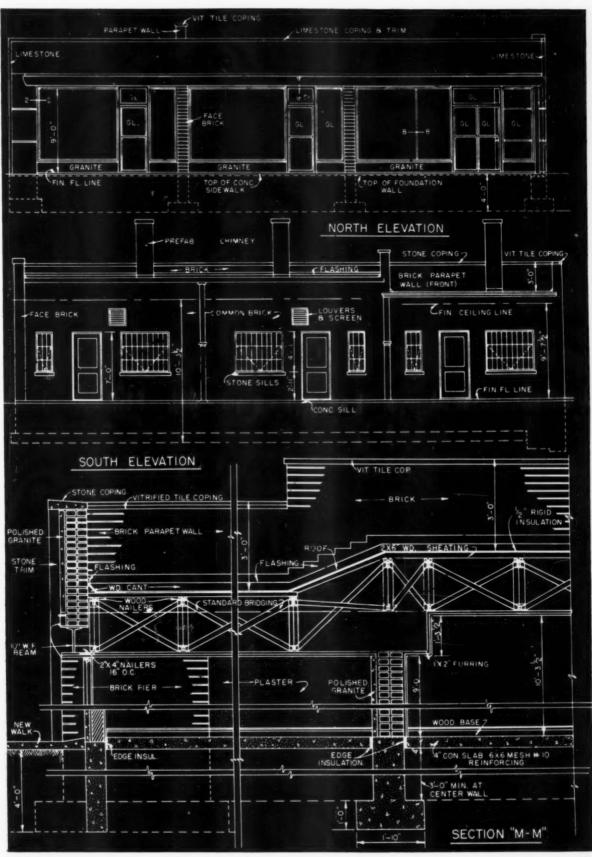
The roof decking has built-up roofing laid on top. Ceiling is metal lath and plaster, with walls also of plaster.

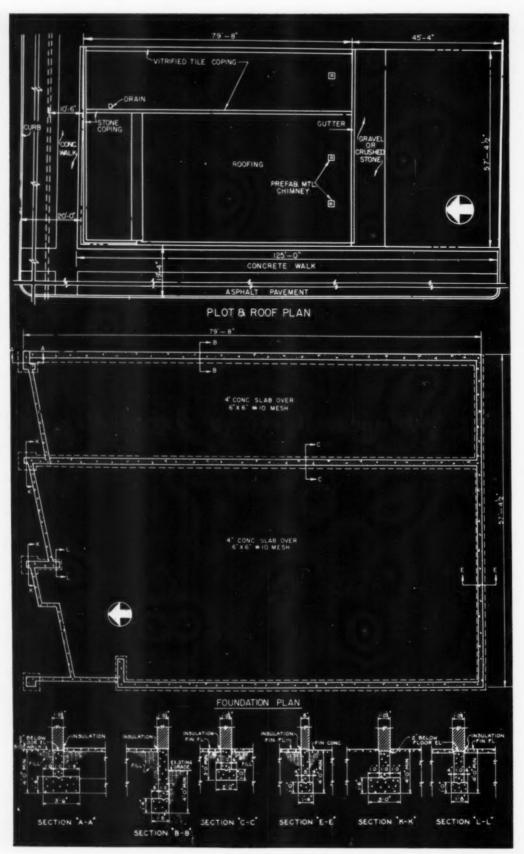
The front of the building is keynoted with the unusual corner entrance treatment which not only capitalizes on the building's corner location, but combines ease of entrance with effective display possibilities for the tenant.

The recessed and angled front windows reduce glare and aid modern merchandising techniques of "putting the whole store in the window" for effectively inviting customers to enter the premises. This is further enhanced by heavy plate glass and metal frames which make a pleasing contrast to the exterior face brick and polished manufactured granite facing.

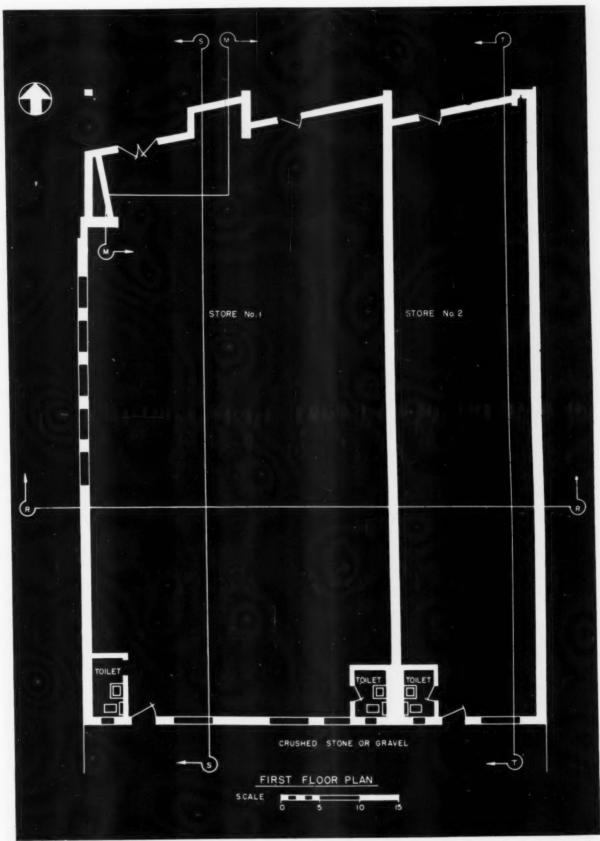
Floor covering, lighting fixtures, and interior decoration are left up to the desires of the individual tenant and carried out by him, only the wiring outlets themselves being installed in the original building. Careful site planning provided ample parking area for employees' automobiles and deliveries at the rear of the building, and adjacent land provides parking space for customers.

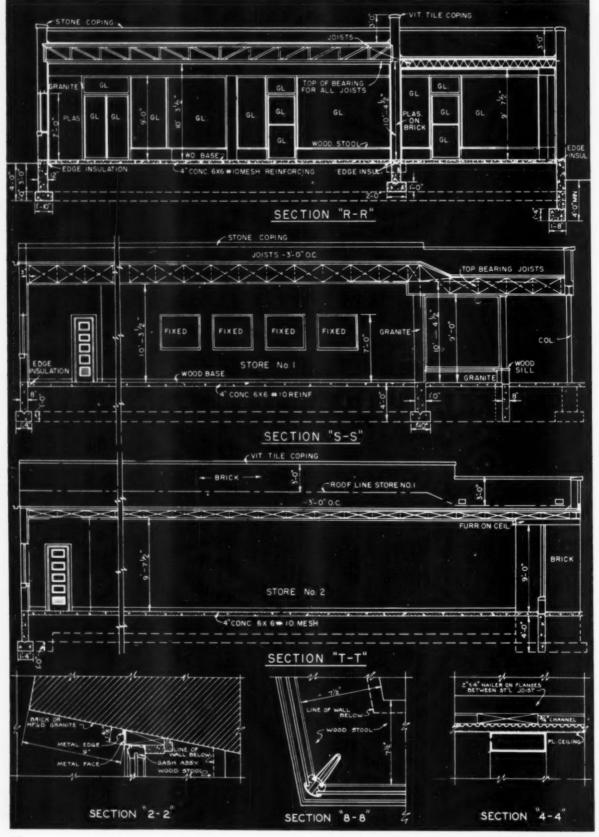




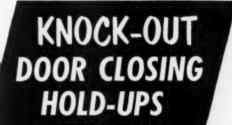


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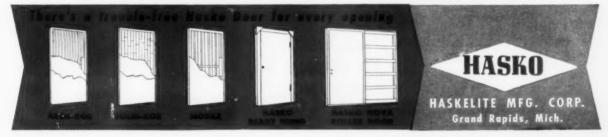
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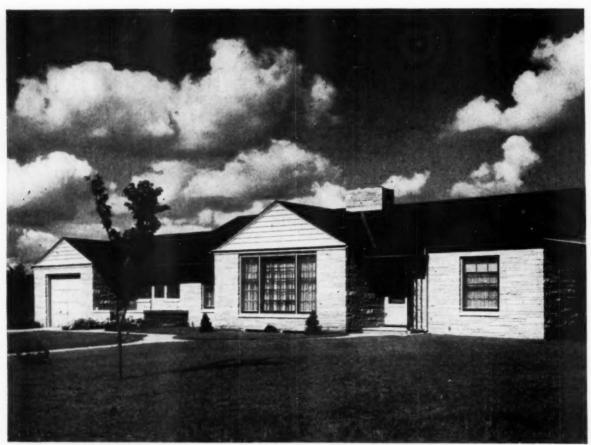
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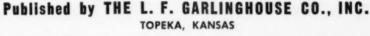
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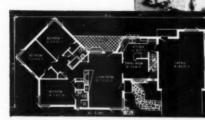


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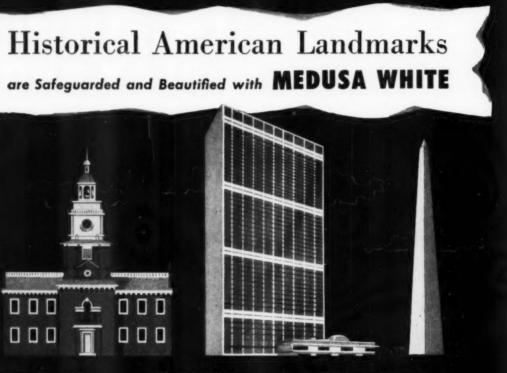


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beautiful plans in the above books is this popular 3 bedroom ranch design.





#### Independence Hall

In the recent restaration of Independence Hall in Philadelphia, Medusa White was used to repaint the masonry work.

#### The United Nations Permanent Headquarters

Medusa Waterproofed White was used recently for setting and pointing the marble, for back-up brick work, and in the terrazzo in the main lobby of this international landmark.

#### Washington Monument

Years ago when the Washington Monument was restored, its marble joints were pointed up with Medusa White Non-Staining Partland Cement mortar. The grout was neat cement and water, of a very thin consistency.

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# PRODUCT NEWS from AMERICAN-Standard

A review of products in the news and important features worth remembering

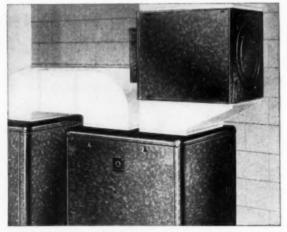


MAYFAIR SUMMER AIR CONDITIONER. This self-contained residential cooling unit mechanically cools and dehumidifies the air. quietly, uniformly, economically. It is designed for easy connection to forced warm air heating system (using same ductwork) to form a year 'round home air conditioning installation.



NEW DRESSLYN LAVATORY-DRESSING TABLE. This handsome unit is compact, yet spacious. The cabinet is made of moisture-resistant wood finished with enamel; the lavatory is genuine vitreous china . both are available in white and 20 harmonizing color combinations. Counter top and splash back are enameled steel.





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# types of cement

In addition to the basic portland cement which serves most of the needs of the construction industry, there are many special types for applications where specific properties are needed. High early strength cement permits concrete to be placed in service and forms stripped more quickly. High sulfate-resisting cement is used widely in the West where excessive sulfate chemicals are present in the air and soil.

### **Air-Entraining Cements**

Air-entraining cements contain small amounts of soap-like or fatty ingredients ground up with the normal clinker. Concrete made with these cements, or with other air-entraining agents introduced on the job under careful control, contains billions of microscopic air cells throughout each cubic foot of concrete. These relieve internal pressure on the concrete by providing tiny chambers for the expansion of water when it freezes.

Air-entrained concrete with normal aggregates is from three to six per cent lighter in weight than otherwise. There may be some loss in strength with normal cement-water ratios, which require slightly more aggregate. This may be offset by increasing the amount of cement percubic yard. Air-entrained concrete has less slump than regular concrete. Because there is no difference in price between regular and airentraining cement, the latter is steadily advancing in popularity with builders.

# White Portland Cement

White portland cement is a Portland cement made of selected raw materials and by processes which

APRIL 1953

will introduce no color, staining, or darkening of the finished product. Water-proof portland cement is made by grinding water-repellent materials with the clinker from which it is made.

### **Refractory Cement**

Refractory cement is not a true portland cement, but is a calciumaluminate hydraulic cement having many properties unlike portland cement. Refractory cement makes possible the use of concrete for many purposes and conditions where ordinary concrete is unsuitable, such as for furnace and kiln linings and chimneys. Refractory aggregates, such as crushed salvage firebrick, must be used in such mixtures.

The cement used by the Romans in ancient times was a volcanic rock of alkaline silico-aluminate composition, called pozzolana. This cement formed a very stable concrete due to a chemical reaction between the free lime and the pozzolana. Similar characteristics are found in fly ash, and research is under way at the present time to determine the effects of the addition of fly ash to cement. Fly ash, suitably treated with alkalines and combined with portland cement produces a concrete of greater compressive strength and sulfate resistance than is obtained by other cements, on the basis of present tests.

### AGGREGATES

Although they are usually considered as inert materials acting as fillers, the aggregates compose some 66 to 78 per cent of the concrete by vol-me. Aggregates must be clean, free of clay, dirt, coal, silt or other matter which would inhibit proper coating by and bonding with the cement paste. CEMENT, CONCRETE MORTAR, PLASTER, Aggregates, and Structural Clay PRODUCTS

ypes of Cement

Aggregates

Sand and Gravel Perlite, Vermiculite Light Weight Aggregates

### Structural Concrete

Prestressed Concrete Pneumatically Applied Concrete

Process Concrete Masonry Units

Stucco and Concreto Coatings Repairing Damp Sesements

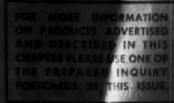
Brick and Clay Products

The S.C.R. Brick Solid Masonry Units Hollow Masonry Units Terra Cotta and Tile

Mortars For Masonry Walls

Plaster.

Plaster bonds 2-lach Solid Partitions Plaster Problems and Remedies



*Dry (	Concrete Pro	perties		Aix Proportio	ins by Volum	e	Field Tests of density	Ma	terials Requi Yard of Pla		
donsity (lbs/cu ft oven dry)	com- pressive strength (psi at 28 days)	thermal conduc- tivity ''k''	coment (socks)	Perlite (cu ft)	water (gal per sack cement)	air entrain- ing agent t (pints)	wet density as poured (lbs/cu ft)	cement (sacks)	Perlite (cu ft)	water (gals)	air entrain- ing agent t (pints)
35	490	.93	1	4	9	1	49	6.50	26	58 1/2	61/2
29	280	.77	1	5	11	11/4	42 1/2	5.20	26	57	61/2
26	220	.70	1	6	13	1 1/2	40	4.33	26	56 1/2	61/2
231/2	160	.65	1	7	15	1 3/4	38	3.70	26	56	61/2
21 1/2	125	.62	1	8	17	2	37	3.25	26	55	61/2

# Typical Mix Designs for Light Weight Insulating Concrete

\*Based on average aggregate density at 8.0/cu. ft. Strength data based on ASTM type 1 Portland Cement. Available from Perita Institute members.

Courtesy Perlite Institute

Both fine aggregates, such as sand, and coarse aggregates, like gravel, should meet the requirements of "Standard Specifications for Concrete Aggregates," ASTM Designation C33.

The size of the aggregates depends upon the thickness of the section to be poured. All sand should pass through a 1/4-inch mesh. The maximum diameter of coarse aggregates should not be greater than one-fifth of the narrowest dimension of the concrete member in which it is being used.

# **Other Aggregates**

In addition to sand and gravel, other materials used as aggregates in concrete include cinders, blast furnace slag, burnt clay, pumice. and expanded vermiculite. Cinder concrete is made of cinders, cement, and water: or cinders, sand, cement, and water. In order to be suitable for concrete, cinders should be hard-burned boiler cinders, free from fine ash, and with a combustible content of not more than 35 per cent by weight. Household ashes are too fine and powdery and should never be used.

Cinder concrete is used for certain classes of work such as roof saddles, floors not designed for carrving heavy loads, and the manufacture of cinder blocks.

Blast furnace slag has found an increasing use as a coarse aggregate for concrete. The slag particles are extremely hard, and because of their pitted surfaces are firmly held in the matrix of cement and sand. Generally, blast furnace slag for concrete work should have a weight of 65 pounds per cubic foot or more, depending on the abrasion to which the concrete is subjected.

(Continued on page 78)



74

# SUCCESS STORY OF A "MR. AND MRS." BUILDER-TEAM:

"SCR brick"

-- new THRU-THE-WALL unit developed by the Structural Clay Products Research Foundation.

Builder Brown's "SCR brick" houses include over 1,000 sq. ft. of floor area, full clay tile basement. Lot size is 75' x 150'.

# free booklet

"HOW TO BUILD HOMES THAT SELL WITH THE 'SCR brick'" gives full construction details. To get one, just write us on your own letterhead. Address: Dept. AB-4.

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\*Reg. TM, SCPRF, Patents Pending "QUIK-WAY" Furring Clips, Patents Pending Mr. and Mrs. Joe E. Brown of Ft. Dodge, Iowe. He's the builder: she keeps the b

# "We build homes of SCR brick" at the cost of frame... and

have figures to prove it."

"We changed from frame to 'SCR brick'—and built more salable houses at no greater cost," says builder Joe E. Brown of Ft. Dodge, Iowa.

"Up to now, I've been almost exclusively a frame builder — erected 41 frame houses in the past two years. So I can compare costs directly with the two 'SCR brick' homes I've just completed.

"'SCR brick' also gives buyers better value — and they know it. I opened my first house with the inside unfinished — to let people see the advantages of 'SCR brick' construction. Both these houses sold fast, and we have started another of the same type."

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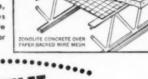




Zonolite Insulating Concrete under radiant heat pipes promotes efficient operation of heating system, better temperature control, saves fuel.



Screeding Zenolite Sand Concrete, grade-level floor. United States Tobacco Co., Chicago, III. Ideal concrete for one-pour floors on grade, or for lightweight upper story floors.





# Zonolite Vermiculite Concrete

Ideal for lightweight roof decks, roof insulation, cavitywall fill and insulating floors on ground.

- HIGH INSULATION VALUE—one inch equal in insulation to 12-16 inches of ordinary concrete.
- LIGHTWEIGHT—only 25-40 pounds per cubic foot,
- depending on mix.
- HIGH YIELDS—no breakdown of aggregate. Easily job-mixed or transit-mixed.
- PERMANENT-will not decompose or rot.

When it replaces sand and gravel in the concrete mix, ZONOLITE Stabilized Concrete Aggregate produces an extremely lightweight insulating concrete. For roof decks: combines deck and insulation in one operation. For roof insulation: may be poured over any structural deck for permanent, efficient insulation. For floors: (a) ideal base for radiant heat systems. (b) where an exposed concrete floor is desired, Zonolite with a sand-concrete topping provides high insulating efficiency.

# and new Zonolite Vermiculite Sand Concrete

Use as fill over structural floors, for floor slabs over closely spaced joists, or for floor slabs on ground.

- LIGHTWEIGHT-1/2 the weight of ordinary concrete!
- EXTRA INSULATION 4½ times the insulating value of ordinary concrete.
- ELIMINATES NEED FOR TOPPING Only one concrete pour.
   UNIVERSALLY AVAILABLE—INEXPENSIVE—ZONOLITE sand concrete usually costs less than concrete with similar characteristics made from other agaregates.

New! Developed to answer the building industry's requirements for a semi-lightweight, resilient, fireproof, permanent floor! ZONOLITE Vermiculite Sand Concrete is ideal as a base for tile, linoleum, terrazzo or carpeting without the addition of a regular sand-concrete topping! Lightweight bagged Zonolite Aggregate permits important economies in handling and placing. Dead load reduction in buildings saves structural steel, too.

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AMERICAN BUILDER



Mount Royal Manor Apartments, Duluth, Minn. Contractor-Owner: W. C. Smith, Inc. Architect: A. Reinhold Melander-both of Duluth

# Owner-builder notes "lower costs" with Atlas Duraplastic<sup>\*</sup> Cement

**GOOD WORKABILITY** is a prime essential in the success of architectural concrete since it serves as both a structural *and* a finish material. W. C. Smith, whose firm is contractor and owner of the Mount Royal Manor Apartments in Duluth, found "concrete made with Duraplastic has better workability, requiring less effort in placing, and that helps lower costs."

When you design for or build with concrete, it will pay you to consider the special advantages of Atlas Duraplastic, the original air-entraining portland cement.

You'll find it requires less mixing water for a given slump. And its more plastic mix aids proper placement, resulting in *improved surface appearance*. Moreover, since entrained air minimizes bleeding, or water gain, and segregation, concrete made with Duraplastic is also fortified against the effects of freezing-thawing weather. Both features add up to better concrete.

YET DURAPLASTIC COSTS NO MORE! It sells at the same price as regular cement and requires no unusual changes in procedure. Complies with ASTM and Federal Specifications. For more information, write Universal Atlas Cement Company (United States Steel Corporation Subsidiary), 100 Park Avenue, New York 17, N. Y.



**Construction goes ahead** satisfactorily even in 20-below Minnesota weather. And since the mix is made with Duraplastic, finished concrete will have extraordinary resistance to freezing-thawing weather ahead!

\*"Duraplastic" is the registered trade mark of the air-entraining portland cement manufactured by Universal Atlas Cement Co.

OFFICES: Albany, Birmingham. Boston, Chicago, Dayton, Kansas City, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Waco. AB-D-148
DURAPLASTIC
AIR-ENTRAINING PORTLAND CEMENT
Makes Better Concrete at No Extra Cost

"THE THEATRE GUILD ON THE AIR"-Sponsored by U. S. Steel Subsidiaries-Sunday Evenings-NBC Network

### (Continued from page 74) **Lightweight Aggregates**

Concrete made with the usual types of aggregates weighs on the average about 150 pounds per cubic foot. Concrete of a lighter weight can be produced by the use of an admixture which causes swelling of the mix, or by the use of lightweight aggregates. The admixture has been used chiefly for floor and roof fills, giving a con-crete weighing about 50 pounds per cubic foot. The strength of such concrete is less than that of normal concrete, but in such uses strength is not an important factor. With admixtures, the swelling occurs after the concrete is placed, so that allowance must be made for the increase in volume.

Lightweight aggregates are used in some structural concrete and in precast units such as concrete masonry, floor joists, and precast roof slabs. Burnt clay, expanded blast furnace slag, pumice, and expanded vermiculite are some of the materials used. Sand is often added as a fine aggregate to improve the workability of the mix. Concrete weights of from 40 to 110 pounds per cubic foot are obtained, depending on the type of aggregate and the use for the concrete. Higher cement factors are required for given consistency and strength with lightweight aggregates than for concrete using ordinary aggregates.

Lightweight aggregates are porous and must be wet thoroughly before being used. A larger proportion of fine aggregates is generally required, because of the rough surfaces and irregular shapes of light aggregate particles.

### **Prestressed Concrete**

in conventional reinforced concrete, the compressive strength of concrete is combined with the tensile strength of steel. This combination places definite limitations on the thickness and weight of unsupported spans, the size of co'umns required, and the weight of beams.

The basic theory of prestres ed concrete is to eliminate or reduce the tensile stresses to which unsupported areas such as roofs, floors, and the walls of tanks and pipe are subjected. This is done by stretching the reinforcing steel so as to superimpose compressive stresses in the concrete.

The strengthening compressive stresses are induced in prestressed concrete in either one of two major ways; by pre-tensioning or by posttensioning of the steel reinforcement. In the pre-tensioning process, the steel is stretched before the concrete is placed or has set, and is anchored by bond within the concrete. After the concrete has hardened around the tensioned reinforcement, the jacks or stretching forces are released. As the steel seeks to shrink back to its original length, the tensile stresses are converted into compressive stresses in the concrete.

In post-tensioning, the steel is stretched after the concrete is hardened, and is anchored externally by means of plates or other gripping devices. In this process, the steel is tensioned against the concrete so that the greater the tension on the steel, the greater the compression in the concrete.

### **Pneumatically Applied** Concrete

Concrete may successfully be applied by pneumatic pressure. Graded aggregate, less than 1/4-inch in size, is mixed with portland cement and placed in a pumping machine from which it is fed into a hose at about 35 to 55 pounds pressure. Water is fed to the nozzle at a pressure about 15 pounds higher than that of the dry mix, and is sprayed on to form a homogeneous concrete. Less water is used with this process - about 31/2 gallons per bag of cement - because the impact force expels excess moisture, air, and uncoated cement.

This concrete may be shot against any appropriate sturdy surface, including earth, to a width of several inches without slumping. This method may be used for building swimming pools, for repairing, waterproofing, fireproofing, and for protecting steel. Concrete blocks laid up without mortar or reinforcing. and shot with 3/4-inch covering of pneumatic concrete have developed over three times the tensile strength of conventionally laid blocks.

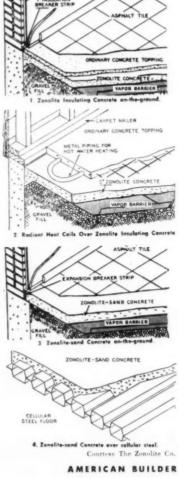
### **Precast Concrete**

Precast concrete is used mostly in the form of masonry units - concrete block, sill, slabs, etc. The development of the low-cost concrete block has been made possible largely by automatic concrete block-making machines, in which cement, water, aggregate and coloring are all mixed. formed, compacted and delivered for curing. Many of these machines are capable of producing as many as 10,000 units a day. At the other ex-treme, there are block machines operated by hand for farmers who have the time and suitable aggregates available for casting their own block. Many contractors find that a small concrete block plant is a profitable side-line, in addition to being a dependable source of quality block.

The wide variety of uses of concrete block include both load-bearing and non load-bearing functions. Foundation walls, piers, partitions, party walls, chimneys, back-up walls, sills, lintels and the like are all readily erected with concrete masonry units. The following is a partial list of the masonry unit forms now being made by manufacturers in a variety of sizes:

Slabs	Sash block
Cap block	Header block
Coping block	Chimney block
Floor filler block	Bull nose block
Siding block	Grade block
Ashlar block	Corner block
Pilaster block	Sill block
Steel sash block	Beam lintel block
Catch basin block	Wall block
Brick	Roof tile
Drain tile	Concrete pipe

# TYPICAL FLOOR CON-STRUCTION USING LIGHT WEIGHT AGGRE-GATE IN INSULATING CONCRETE AND IN SAND CONCRETE.



Although these units are made in various sizes, their dimensions are usually modularly co-ordinated to simplify building problems. Actual dimensions are short 1/4-inch or 3/8inch of normal sizes to allow for mortar joints. Thus, the standard 8 by 8 by 16-inch unit actually measures 8 by 75/8 by 155/8 inches. Concrete blocks are an economical masonry unit for houses because they are relatively large, more quickly set than brick, relatively true to size, and more economical of mortar.

Concrete masonry units may be made to have excellent fire-retarding and acoustical properties. Aggregates may be selected to give light weight or extreme density. In addition to sand and fine gravel, aggregates may include expanded slag, pumice, vermiculite, and other materials

# Structural Units

In addition to all of the different types of masonry units, a wide variety of structural units such as joists, slab sections, and wall sec-tions are precast. Many of these sections are of pre-stressed construction, giving strength with light weight and permitting many new architectural applications and design treatments.

### **REPAIRING DAMP** BASEMENTS

Dampness or leakage in concrete or masonry basements may occur because of atmospheric moisture on wall or floor surfaces, through leakage of water through cracks, or through gradual seepage of moisture from the surrounding soil. The remedies depend upon the cause.

### Condensation

Dampness from condensation may be prevented or minimized by either heating the basement air, dehumidifying the air, or ventilation.

### Leakage or Seepage

Before making extensive repairs, the drainage system should be thoroughly checked. Many times, correction of obvious faults in the drainage system corrects the damp basement, Relocation of downspouts or construction of gutters to take runoff water away from the walls is essential. If downspouts are not connected to underground drains, they should discharge into leads that will carry the water away from basement walls.

Repairing Walls from Outside-Repairs are most effective and lasting when made to the earth side of the basement wall by digging a trench wide enough to work in, extending to the bottom of the footing. The wall surface should be thoroughly cleaned by brushing and washing to remove all dirt and loose material. If the construction is of masonry, any loose mortar should be removed to a depth of 3/1 in. If there are cracks in either the masonry or cast-in-place walls these should be cut back to form a V-shaped groove at least 1/2 in. wide and <sup>3</sup>/<sub>4</sub> in. deep. Both mor-tar joints and V-shaped grooves should be cleaned of all dust or other loose material and then wetted before being filled with a stiff cement-

sand mortar consisting of 1 volume of portland cement to 11/2 volumes of mortar sand. This mortar is mixed to the consistency of moist earth and should be rammed into the crack with a calking tool.

If the basement walls are of masonry they should then be given two coats of portland cement plaster each 1/4 in. thick. The plaster should be made in the proportion of 1 volume of portland cement or masonry cement to 21/6 volumes of damp loose mortar sand. The wall surface should be dampened before application of first coat. After the first coat is partly set it should be scratched with a piece of metal lath to provide a good key for the final coat. The first coat should be allowed to harden for at least 24 hours and then dampened before application of second coat. The second coat should be cured by keeping its surface damp for at least 48 hours.

Whether the wall under repair is of masonry or cast-in-place concrete, the final treatment to the exterior surface should consist of two continuous coatings of hot bituminous material. These should be brushed on over a suitable priming coat and should extend from 6 in, above the ground line down over the top of the footing. The second coat of hot bituminous material should be applied with brush strokes at right angles to the strokes used for the first coat. The wall must be surface dry when primer is applied and primer should be dry before the hot bituminous material is applied.

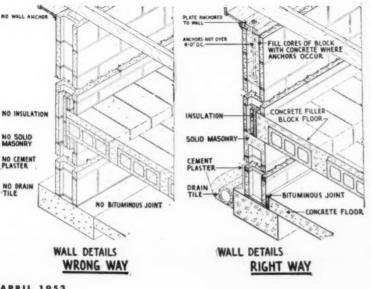
# new SCR brick

This new brick is a through-thewall unit needing no backup materials. Conventional in appearance (it looks like standard Norman brick) the unit can replace present 8-inch wall construction in homes of 11/2 stories. Every major national building code permits 6-inch masonry walls for single-family one-story residential construction (9-foot walls, 15 feet at gables). FHA accepts such a wall.

Size of the SCR brick is modular but it can be used with non-modular design as well. The brick is vertically cored with holes of 13/s-inch diameter to lighten its weight. The unit weighs about eight pounds when made with the usual clays and shales. Smooth or textured surfaces are available in a wide range of color.

SCR brick is designed for use with furring on which the interior surface materials and insulation can be mounted. Two-inch by 2-inch wood furring is solely recommended, as it (Continued on page 84)

# typical concrete masonry walls



79

# BRIXMENT for



**F** OR over thirty years, Brixment has been recognized as the *best* masonry cement on the market. Government statistics show that it is by far the largestselling and most widely-used brand. It is universally considered the standard for all masonry cements.

During recent years, of course, a number of somewhat similar products have been brought out in an attempt to compete with Brixment. But none of them can use the same raw materials and the exclusive Brixment process. Therefore, no other masonry cement combines to such a high degree the same plasticity, strength, bond, water retention, and freedom from efflorescence. It is this *combination* of advantages that makes Brixment superior to other masonry cements, and *especially* to any mixture of portland cement and lime.



# BRIXMENT IS EASIER TO MIX . . . . .

One bag of Brixment and three cubic feet of sand — this is the simple Brixment mix. Nothing else is needed because Brixment combines the characteristics of portland cement and lime, having both strength and plasticity. No water-proofing admixtures are necessary because an air-entraining and water-proofing agent is intermixed with Brixment during manufacture. As a result, Brixment mortar offers greater resistance to the passage of water.

Because Brixment requires no soaking or slaking, it is ready to mix and use the minute it is delivered. Neither men nor materials need be sent to the job in advance of actual work.

The mortar can be mixed in large or small batches as the work progresses, to come out even at the end of the day. When Brixment is used, no supervision is required at the mortar box, to secure mortar that is uniform in strength and color.

# STRONG, DURABLE BOND

Brixment mortar assures a strong, durable bond with the brick *because:* 

(1) Its great plasticity and its high water-retaining capacity allow a more thorough bedding of the brick, and a more complete contact between the brick and mortar.

(2) It hardens slowly enough to permit deeper penetration and more thorough keying into the pores of the brick.

(3) Once formed, a bond between brick and Brixment mortar is permanent, because Brixment mortar does not undergo volume changes sufficient to weaken the bond.

Because of these characteristics, Brixment mortar makes *a better bond*.

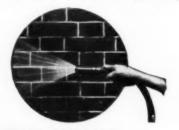


# BRIXMENT IS STRONG . .

Brixment exceeds the Type I and Type II strength requirements for masonry cement of both the Federal and the American Society for Testing Materials specifications. Type II is usually specified when high strength is required.

When Brixment mortar is tested in compression between two brick, at 28 days or later periods, the brick frequently crack before the mortar fails.

Brixment is recommended for any kind of masonry — for foundations, load-bearing and parapet walls, for freestanding stacks—for every use where strength is required.



# BRIXMENT HELPS PREVENT LEAKY WALLS . .

No water-proofing admixtures are necessary when Brixment is used for mortar. Brixment is water-proofed with an effective air-entraining and water-proofing agent which is integrally mixed with Brixment during manufacture.

# BETTER MASONRY

Because of this water-proofing, and because of its plasticity, its high water-retaining capacity and its excellent bonding qualities, Brixment mortar furnishes as great protection against leaky walls as can be secured from any kind or type of mortar materials.



# WATER-RETAINING CAPACITY . . . . .

Brixment mortar has extremely high water-retaining capacity. It strongly resists the sucking action of the brick. Brixment mortar therefore 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 mortar. The result is a better bond, and hence a stronger and more watertight wall.

# BRIXMENT HELPS PREVENT EFFLORESCENCE

Efflorescence is caused by soluble salts which are present in almost all masonry materials. When reached by water, these salts dissolve and may be drawn, by evaporation, to the surface of the wall.

Brixment helps prevent efflorescence. The air-entraining and water-proofing agent in Brixment prevents 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 IS PLASTIC .

One of the most important characteristics any mortar can possess is *plasticity*. Within certain limits, plasticity is the greatest single factor not only in the *economy* of the brickwork, but also in its strength, its neatness, and its resistance to the passage of water.

One of the outstanding characteristics of Brixment mortar is its unusual plasticity. For over thirty years, bricklayers all over the United States have agreed that the workability of Brixment is comparable to that of straight lime putty. This exceptional plasticity makes it easy for the bricklayer to secure neat, economical brickwork, with the brick properly bedded, and the joints well filled.

And because of this unusual plasticity, a bag of Brixment will carry three full cubic feet of sand and still make an ideally workable mortar.



# BRIXMENT FOR STUCCO AND PLASTER ....

The same characteristics that make Brixment superior to portland cement and lime for masonry make it equally superior to these materials for stucco and plaster,

Brixment is more economical, more moisture-resistant, more plastic and more uniform in color than a combination of cement and lime. It has a slower, more convenient hardening time and since it is used in leaner mixes, hairchecking, crazing and shrinkage are reduced to a minimum. Write for recommended mixes.

Brixment stucco and plaster can be applied over any kind of masonry backing (brick, tile, block, concrete, etc.). or over expanded metal lath. The use of Brixment stucco and plaster over any other backing is not recommended.



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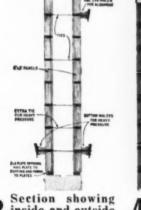
# HOW SYMONS FORMS Help To Build Better Foundations

— Easily and Economically



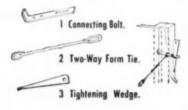
Starting at a corner, panels of the outside form are erected. Spreader ties are placed in position and anchored on the same connecting bolt, locking panels together.

Inside panels join projecting ties. Forms are aligned and braced with walers.



3 inside and outside forms ready to pour.

JUST 3 PIECES



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Symons Forms may be rented for one month or more. Rentals apply on the purchase price. Hardware and construction information is available for those who prefer to build their own forms.

Symons will prepare a form layout and a cost sheet for any type forming job---no obligation. Send a complete set of plans with your request.



AMERICAN BUILDER

he same connecting bolt, locking panels together. Z ing ties and br

To strip wall remove locking wedges and connecting bolts. Pull panels back easily.

Break off tie loops with a 1/2 twist. Wall is smooth, strong and waterproof.

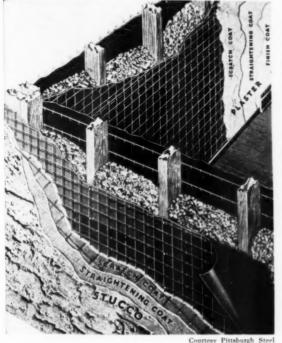
# STUCCO AND CONCRETE COATINGS

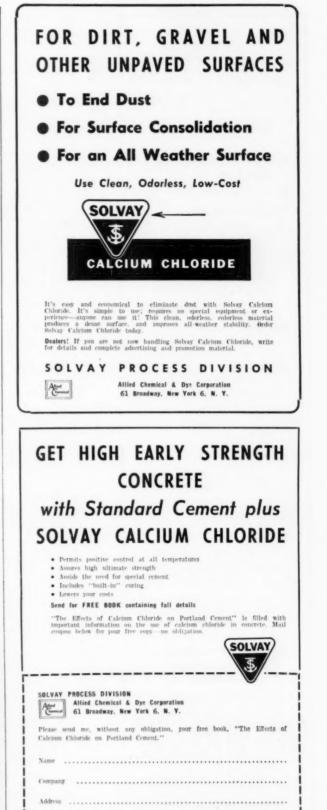
Portland cement stucco is typically composed of one part of cement and three to five parts of damp, loose, well-graded aggregate. Hydrated lime up to 10 per cent by weight of the portland cement may be added as a plasticizing agent for better workability. Proportions should be accurately measured and thoroughly mixed. From three to five minutes of mixing time in a drum mixer is about normal. The most common practice is to use white portland cement with white sand to secure a good white finish coat.

Frame buildings to be stuccoed should have sheathing more than eight inches wide. This is covered with a 15pound building paper, lapped three inches at joints and flashings. A steel reinforcing mesh is applied with furring nails that space out the mesh 1/4 to 3/8 inches. Reinforcing joints should lap an inch and be staggered and lapped three inches at flashings. The building is then ready for stucco application.

Another point to consider in the preparation of the structure is the avoidance of concentrated water flows, through the use of overhangs and downspouts. Hangers, fasteners, and other trim should be in place before the stucco is applied. Flashings should be installed around the tops and sides of all openings, particularly around chimneys that are to be stuccoed. Although stucco is occasionally run to the ground level, it is better to stop about six inches above ground to prevent moisture seeping and staining.

Stucco goes on in three coats, each being applied in one direction so that the mortar does not harden at the edges. Stops should be made only at natural divisions in the work. The first or scratch coat is applied about  $\frac{3}{8}$  of an inch thick, and allowed to set for 48 hours. A fog spray is applied, and the second, or brown coat, about  $\frac{3}{8}$ -inch thick, is applied. Both of these coats are scratched to provide bonding for succeeding coats. The brown coat is permitted to moist cure for 48 hours, and should be air dried for about seven days before the final coat is applied. The finish coat should be not less than  $\frac{1}{8}$ -inch thick, and is applied after the surface of the brown coat has been moistened.





# CHECK

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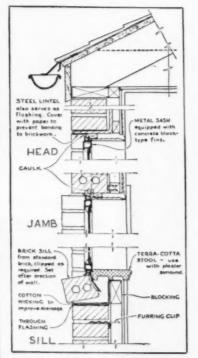
84

ROOF FAVE tell roefing: izd NA IN EACH FIRESTO METAL CUTTER PLATE OUTLOOKER FASCIA LATH MA ANCHOR BOLTS ORY-NA die. 4.0° e.c. min. die. 8.0° e.c. min -----NOM. 2.2 FURRING 171

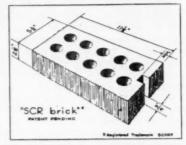
### PLATE anchorage and eave detail

(Continued from page 79) provides an adequate cavity to prevent moisture penetration and reduces the number of nailing plugs required. It also permits easy wiring and installation of insulation. Using recommended furring, the builder can economically finish the interior of the wall to provide any desired U-factor. One-inch blanket insulation gives a U-factor of 0.12.

To simplify and reduce furring costs, the Clay Products Institute and the Peterson Products Co. of Janesville, Wis., have developed an improved version of the Quikway furring clip, to be used with SCR brick walls.

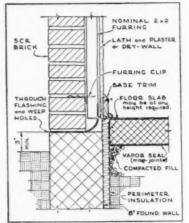


WINDOW DETAILS - metal casement

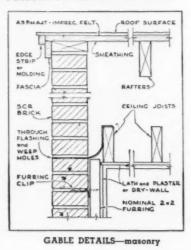


The "SCR brick." a structural clay building unit designed to compete in cost with quality frame construction, has been put on the market through research development of the Structural Clay Products Institute

Endorsed by the Bricklayers, Masons and Plasterers International Union (AFL), the SCR brick is the second major development of the Structural Clay Products Research Foundation established by the industry in 1950. The "SCR" insulated cavity wall, with a new pouring type of insulation permitting exposed masonry interiors with very low heat loss, was introduced in 1951.



### FOUNDATION DETAIL - slab-on-ground



# **VITRIFIED CLAY WALL COPING**

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Vitrified Clay Wall Coping seals off your crucial top courses of masonry. Water can't seep down inside—can't cause decay, crumbling or frost damage. No matter how long it's exposed to weather, Vitrified Clay Wall Coping stays sound and impervious to moisture.

Make sure your building walls are solid. Insist on the *permanent* weather-protection you get from Vitrified Clay Wall Coping.



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# Types of Structural Clay Products

There are three general types of structural clay masonry units: solid masonry units, hollow masonry units, and architectural terra cotta.

### Solid Masonry Units

Solid masonry units are those whose volume of cores, cells, or hollow spaces does not exceed 25 per cent of the total for the unit. Brick is included in this classification, and most solid masonry units produced commercially are marketed as a type of brick. Brick falls into two general groups-building brick and facing brick. Building brick (or common brick) is used primarily as a structural inaterial where appearance is not a factor. Facing brick is used both as a structural material and for decorative purposes, where color, texture, and freedom from defects which would detract from appearance must be considered.

Building brick is graded by Specification 62 of the American Society for Testing Materials, which covers three grades based on resistance to weathering. Facing brick is graded by ASTM Specification 216. This specification covers two grades of brick based on resistance to weathering and three types of brick based on factors affecting the appearance of the finished wall.

### **Hollow Masonry Units**

Hollow masonry units are those whose volume of cores, cells, or hollow spaces exceeds 25 per cent of the total volume of the unit. Structural clay tile is included in this classification, and covers such types as loadbearing tile, non-load-bearing tile, facing tile, floor tile and others.

Load-bearing tile is used in walls designed to carry superimposed loads and is graded by ASTM Specification C34, which covers two grades based on resistance to weathering.

Non-load-bearing tile is used in walls which support only their own weight, such as interior partitions carrying no superimposed load. Nonload-bearing tile is covered by ASTM Specification C56, which includes only one grade, since such units are intended for use where they will not be subject to weathering.

Structural clay facing tile is graded by two specifications, those of the Facing Tile Institute and by ASTM Specification C212. These tiles are produced in two general types—side construction tile designed to be laid with cells in a horizontal position, and end-construction tile designed to be laid with cells in a vertical position.

# **Architectural Terra Cotta**

Architectural terra cotta is a custom-made product and is hand made by molding or pressing, and also made by machine. The latter type, shaped by extruding the plastic clay through a die, is often referred to as ceramic veneer, and is available in large sizes up to 48 inches in one dimension. Terra cotta is used extensively in veneering and ornamentation and is available in an almost unlimited variety of colors, both glazed and unglazed.

### Use the Proper Mortar For Structural Masonry

In selecting mortar, evaluate its properties in terms of the situation where it will be used. Properties to be considered include: workability and water retentivity, bond, durability, strength, volume change, and efflorescence. Desirable mortar properties may be found in mortars consisting of a wide variety of ingredients.

# **Recommended Mortars**

TYPE A: one part of portland cement, 1/4-part hydrated lime or lime putty, and not more than three parts sand by volume. This is a high strength mortar suitable for general use and recommended specifically for reinforced brick or tile masonry and plain masonry below grade and in contact with earth.

TYPE B: one part of portland cement, one part hydrated lime or lime putty, and not more than six parts sand by volume. Type B mortar is a medium strength mortar suitable for general use in exposed masonry above grade and recommended specifically for parapet walls, chimneys, exterior walls subjected to severe exposures, and also for load-bearing structural clay tile construction.

TYPE C: one part of portland cement, two parts hydrated lime or lime putty, and not more than six parts sand by volume. This is a low strength mortar suitable for nonload-bearing walls of solid masonry units, for interior non-load-bearing partitions of structural clay tile, and for load-bearing walls of solid units in which the loads developed do not exceed 100 *psi* and where exposures are not severe.

# plaster . . .

Proper use and application of plaster bases is important in the construction of strong and durable finished walls and ceilings. A secure bond between the plaster base and



The first step in the installation of a twoinch solid gypsum partition is to secure a grooved wooden runner or  $\frac{3}{4}$  inch steel channel to the floor according to the partition layout with nails or adhesive

the plaster is essential to develop strength and resistance to abuse, bumps, and cracking.

Gypsum plaster adheres to a plaster base because a bond is developed which virtually makes the two materials a solid unit. A "mechanical" bond is formed when plaster is pressed through the mesh or holes of the lath, forming keys on the other side. The keys actually rivet the lath and plaster together. This mechanical bond results when plaster is applied over metal lath or perforated gypsum or fiber insulating lath.

A "suction" bond is formed when gypsum plaster is applied over gypsum lath, sheet fiber insulation lath and masonry bases. In these cases the tiny needle-like crystals of the plaster penetrate into the surface pores of the base material by suction. When the plaster sets, the base material becomes "welded" to the plaster. When perforated gypsum lath is used, both suction and mechanical bonds are developed.

The gypsum industry calls attention to a comparatively new product in the building field—a two-inch solid gypsum lath and plaster partition.

The new partition has attracted attention because it is a good example of how, in a "wartime economy," gypsum products can conserve on lumber and steel in residential dwellings. Another factor which recommends its use in multiple-unit constructions is its space-saving attributes. Engineers have computed that for every  $3\frac{1}{2}$ lineal feet, a two inch solid gypsum



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# DODGE REPORTS

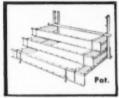
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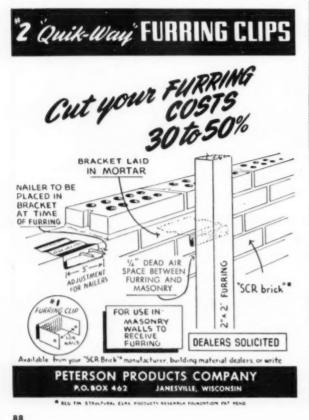
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partition adds an extra square foot of rentable space over a standard stud partition.

The partition, which consists of a core of  $\frac{1}{2}$ " gypsum lath plastered  $\frac{3}{4}$ " thick on each side, was developed during the early days of World War II to conserve critical materials. It was one of the few developments coming out of wartime experience which has proved a contribution to the building industry, the gypsum industry spokesmen point out. It has been used extensively in garden-type apartments and is gaining considerable attention in the home building field. As described in this article, the partition is one-hour fire-resistive. but when lightweight aggregate is used instead of sand, the fire-rating is 11/2 hours.

Performance-wise, the two-inch solid partition withstands cracking from repeated impacts of a 60pound sandbag falling four feet against the partition.

The Bureau of Standards gives the gypsum two-inch solid partition a sound transmission loss rating of 38 decibels, which is approximately the same rating assigned to threeinch gypsum partition tile, plastered on two sides; hollow metal stud par-



One-half inch. long length gypsum lath with grooved or square edges is set into the floor runner, and tie-wired or clipped to the ceiling runner. Adjacent laths must be butted tightly

# STUCCO APPLICATION DATA

# **Amounts of Coment and Sand Required**

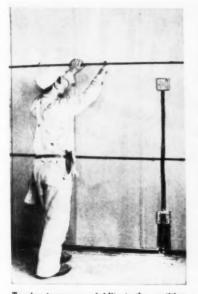
NOTE—The areas covered by one barrel of cement or one cubic yard of sand, as given below, are calculated for an average sand and without allowance for waste. In estimating, allowance must be made for waste. Openings are not deducted. When figuring for stucco, the loss of mortar, forming the keys for the first coat, should be taken into account.

# Area Covered by 1 Barrel of Cement in Various Mixes

Mix	ture		Thickn	ess of Mort	ar Coat	
Parts by	Volume	1/4 Inch	% Inch	1/2 Inch	3/4 Inch	1 Inch
Cement	Sand	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.
1	11/2	336	226	168	112	84
.1	2	404	270	202	135	101
1	21/2	472	314	236	157	118
1	3	542	362	271	181	136

Tog	y pe gre				Wt. of aggregate per cu.ft. (lb.)	Wt. per cu.ft. of concrete using aggregate (Ib.)
Burned clay	or	sh	ale		40-60	100-120
Expanded sl	ag				40-60	90-100
Cinders .					40-50	110-115
					(plus sand)	
Pumice .					30-60	60-90
Diatomite					28-40	55-70
Perlite .					6-16	40-65
Vermiculite					6-10	25-50

AMERICAN BUILDER



To give temporary rigidity to the partition laths, temporary braces are secured to one side only. These braces are <sup>3</sup>/<sub>4</sub> inch channels secured to the lath horizontally at about third-points of partitions up to 9 feet in height. The channels are secured to the lath with tie wires at the vertical joints between lath panels. Tie wires are twisted over nails on the unbraced side

titions, plastered on two sides with stud spaces filled with mineral wool; and wood studs faced both sides with metal lath and plaster.



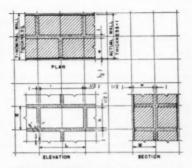
Prefabricated forms save the builder time and money. The units shown above are of rigidly braced metal panels



The partition is now ready for plastering. A scratch coat is applied to both sides. After the scratch coat sets, a brown coat is applied to the unbraced side. When the brown coat sets, the temporary channel braces are removed, and a brown coat is applied to the side formerly held by the braces. Wooden runner serves as ground or screed strip for the brown coats. Any standard plaster finish may be used



PARGING between brick and backing offers high resistance to water penetration



NOMINAL DIMENSION of masonry unit is equal to standard dimension plus thickness of mortar joint, as shown above. If nominal length of unit is 12 inches, actual length would be 11½ inches if unit is laid with ½-inch mortar joint

# ... pointers on bricklaying



POOR WORKMANSHIP—likely to leak. Deeply furrowed bed joints and only partly filled head joints with no mortar in vertical or collar joints allows water to seep in and damage structure



HERE is good workmanship. Bed joint is spread to uniform thickness. Mortar is only *slightly* furrowed. Head joints are completely filled by buttering end of brick before shoving into place. Slushing partly filled head joints does not do the job!

### COMPLETE KIT INCLUDES:

KORNER KING with drive and wood bit shafts; 10 RCS Super-Speed bits %" to 2%" diameter, one 6" and ane 12" extension and an adaptor to adapt bits up to 11/4 inches for use with extensions.

\* decrease R.P.M. for carbide tipped and slow speed drills \* increase R.P.M. for high speed drilling of sheet metal, etc. \* drill up to 2-9/16 inch diameter holes in hardest wood \* drill in inaccessible spots, between joists and studs \* take bit shaft extensions reaching to any distance

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%/16" hole EASILY

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**ANOTHER RCS TOOL!** Yes, RCS, makers of the famous SUPER SAW now proudly present the RCS KORNER KING . . . the newest, finest right angle drive attachment that simply "snaps on" your drill.

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Now you can triple the range of your present electric drill. No need to carry an awkward ratchet brace for low speed drilling when ma-terials demand. KORNER KING converts ¼" capacity drill of 2000 R.P.M. to 1000 R.P.M. with 80% more power. And you reverse gear ratio in seconds!... doubling your drill's speed for high speed boring operation by snapping KORNER KING off and on!

### **DRILL IN INACCESSIBLE SPOTS!**

Handy, compact design of Korner King allows use of your electric drill in otherwise impossible locations. Drill between joists and studs, or in tight cramped corners. Extend shaft to penetrate any thickness or to drill aligned holes through any series of obstructions. Do a faster, better job!

### BUILT FOR LASTING PERFORMANCE!

Like the famous RCS SUPER SAW, the new KORNER KING is precision engineered for rugged, continuous duty and trouble-free serv-ice. RCS KORNER KING features full ball bearing supported shafts, hardened steel gears. It's another RCS tool that's built to last and 'pay for itself" over and over again.

JOLIET, ILLINOIS, U.S.A.

### INTRODUCING NEWLY DESIGNED RCS SUPER-SPEED BITS ...

WITH THE NEW "INSTANT SNAP-IN"

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AND AMAZING RCS SUPER-SPEED BITS!

Something really new in bits . amazing. versatile and inexpensive! Patented curved cutting blades do faster boring job with less horsepower. Set screw secures replaceable blade to  $5\frac{1}{2}$  " shank. Adaptable to extension to indefinite length.

### **REQUIRE MUCH LESS TORQUE, LESS THRUST!**

Impartial tests made at the Mechanical Engineering Shops of the University of Illinois proved that RCS Super-Speed bits need less thrust, develop less torque. In the tests, three 1-inch bits were turned at 1335 R.P.M., traveling through solid oak at .004 inch per revolution. The results:

			forque in ft. pounds	H. P.	Temp.
<b>RCS Super-Speed</b>	Bits	20.0	1.42	.362	normal
Competitor A		56.0	2.52	.644	hot
Competitor B		75.0	3.94	1.00	very hot

# COOL RUNNING, LONG LASTING!

The thin blade design of RCS Super-Speed bits dissipates heat faster ... razor cutting action reduces friction to a minimum. Made of ex-

tremely hard, tempered, blue spring steel. RCS Super-Speed bits drill clean straight holes through any wood . . . cutting small nails, staying sharp longer. When necessary, blades are easily resharpened or inexpensively replaced.

CORPORATION

ance of the KORNER KING a ut the a Learn more abo RCS Super-Speed Bits. Write for descriptive literature and some nearest jobber today.

R. C. S.



The ever-growing use of power tools and equipment in the building industry has undoubtedly contributed more to cutting costs and increasing production than any other single factor. This increase in the use of power tools is inevitably accompanied by greater accident hazards.

Builders are becoming increasingly aware that SAFE construction practices are also economical, whether it be in tool and equipment operation, the building and use of ladders and scaffolds, or re-moving nails from loose boards. Accident costs are not always i.a. sured: improved safety records are reflected in lower insurance premiums, in fewer lost man-hours, and in equipment and materials savings. If an improperly anchored hoisting tower falls, injuring a worker, the man's hospital expenses and lost time may be covered by insurance: but the contractor still must replace or repair the equipment, and is short the services of a skilled and experienced worker.

# Safety Is No Accident

Contractors with good safety records are not "just lucky." Safety on the job is invariably the result of careful planning and supervision. Management and executives must

APRIL 1953

be safety conscious. Safe equipment must be provided and maintained. Foremen and superintendents must see that all accident hazards are eliminated or guarded. Men on the job should be taught to prevent injuries to themselves and fellow workers. Adequate first aid supplies must be provided and medical and hospital attention should be available with a minimum of delay.

# Safe Operation of Equipment

Almost without exception, manufacturers "build safety in" in the design and construction of tools and equipment. It will always be found that the proper way is the efficient way and the safe way to use tools. Correct use does the job more efficiently, safer, faster.

# **Power Suppliers**

Basic equipment, such as engines, generators, compressors and transformers is used as a source of power to operate other tools or equipment. Safe operation begins with proper inspection of the equipment when it arrives on the job before setting up for use. Guards over gears and belts, safe oiling devices, handholds, and other safety measures should be checked. Equipment which will be installed for the duration of the job, such as hoisting machinery,

# CONSTRUCTION MACHINES & EQUIPMENT

# TOOLS, POWER AND HAND

Power Suppliers Site Preparation Equipment Concrete Equipment Lumber, Heavy Units & Materials Handling Equipment Lifting Equipment Trucks Scaffolding Ladders Hand Tools Hand Power Tools Production Power Tools

ACKNOWLEDGEMENT must be made to the many manufacturers who contributed intormation used in this chapter and in particular to the National Safety Council for major contributions pertaining to safe and correct operation of tools, machines; and equipment. The National Safety Council has complete and detailed technical reports on nearly all construction tools and devices and is well equipped to help builders interested in cutting costs through safe practices.

FOR MORE INFORMATION ON PRODUCTS ADVERTISED AND DESCRIBED IN THIS CHAPTER PLEASE USE ONE OF THE PREPARED INQUIRY POSTCARDS IN THIS ISSUE.



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02



Courtesy National Saftey Council

motor-generator sets, etc., should be set rigidly on a secure level base in proper location to the work. Ready accessibility for operation and maintenance should be provided.

Electrical equipment should be installed and checked only by qualified workmen. Proper ground connections should be made. Circuit breakers or fuses of the correct rating must be installed to prevent overload damage. All wiring must be properly insulated.

Compressors must have a safety valve set for blow-off at the correct pressure for the equipment and work at hand. Valves and hose should be inspected before being placed in service. Compressors or other equipment mounted on wheels should be blocked to prevent moving while in operation.

In operation, routine checks for maintenance should include inspection of safety features. Replacing of worn belts, defective insulation, repair of hoses—these are all good safety practice as well as efficient maintenance precautions. Only workmen authorized and instructed in correct safe operation of equipment should be permitted to use it. Good housekeeping—keeping the working area free from rubbish, scrap material, ice, and grease and oil on floors—will minimize falls and fire hazards.

### Site Preparation Equipment

Safe operation of site preparation equipment such as earth movers, diggers, tractors, and bulldozers begins with the purchase of the machinery. Considerations such as gear guards, safe lubricating de-



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- Versatile! Use it for Pavement Breaking...Cutting...Digging...Rock Drilling...Frost Breaking...Rod Driving. Ideal for general utility, standby, and emergency service.
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- Quick disconnect at handle for battery cable. Thumb controlled switch.
- Powerful, rugged; up to 1550 strokes per minute.
- Economical! Low first cost, low operating expense, low maintenance expense. Quickly pays for itself.

ASK FOR A DEMONSTRATION-See for yourself—ask for our nearest distributor to give you a demonstration.



vices, good electrical insulation, and so on should be noted and given due weight.

A sound procedure in training operators to work safely is to stress the practices that eliminate the most serious and frequent accidents and to require observance of these habits. Operators should know and observe safe load limits of the equipment. Serious accidents have resulted from overturning machines such as shovels, cranes and bulldozers due to overloading. Taking too large a bite when digging may cause the machine to lurch, throwing the operator against the frame or off the machine, with the possibility of serious injury.

Trucks should be loaded evenly so that the material does not overhang the sides. Loads should not be swung over the cabs of trucks unless the driver is off the truck.

Operators have a definite responsibility for the safety of other workmen in the areas in which they are working. They should be observant at all times of the other work being carried on. Also, workmen in the site area should notify the operator if they will be working in places where they may not be seen by the operator. Operators should not jump on or off equipment while it is moving; handholds should be used; steps and running boards should be free from ice, snow, grease, oil, or debris.

Machines should be shut down, and blades or booms lowered to the ground when making adjustments, repairs, or lubrication. Good maintenance practices will both prolong machine life and efficiency, and lessen operating hazards.

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More Speed ... More Profits ON EVERY JOB with



NATION-WIDE SERVICE American Distributors in principal cities furnish *quick* service by factory-trained men when repairs are needed. Main office of R. N. Forrester, Chicago area distributor, shown here, Big job or small job—you'll do it faster and better and MAKE THE MOST PROFIT with an All-American line-up of machines and materials! They're *performance-proved* on finest floors ... save labor and insure best results from start to finish!

Depend on American Machines and Abrasives to put a beautiful, super-smooth surface on floors with rapid and efficient sanding, steel wooling and polishing. Use American quality finishes and cleaning materials for wood, cork, concrete, terrazzo, asphalt, rubber, linoleum or plastic. Speed up small tool jobs with American belt sanders, and portable electric saws.

03

heck your needs now FLOOR SANDERS Fire models, a ma-chine for every pur-pose. Super 8-8" drum; Standard-8" and 12" drums; AMR -8" drum; Little American-8" drum. FLOOR EDGERS Two models, 7" and 5½" discs—for sand-ing edges, closets, stairs, small halls. FINISHES ABRASIVE PAPER American Finishes are finest quality—com-plete line for all foors . . . seals, finishes, waxes, cleaners. AbkASIVE FAFER New improved Ameri-can Black Demon and American Combina-tion high quality papers are scientifically improved to give long-er life, faster cutting. PENTRA SEAL INCOMENTS. FLOOR ORTABLE MAINTENANCE American Deluxe, all floors—polish waxing, steel woo disc sanding, grind disc sanding, grind ELECTRIC SAW 81/2" blade cuts 21/4" plank at 45°, or 3" straight cut. Motor de H.P. ELT SANDERS LESTO SAW ortable ... many ectric iig o The American Floor Surfacing Machine Co. 511 So. St. Clair St., Toledo 3, Ohio **50 YEARS** Please send latest catalog on the follow-ing, without obligation: OF PROGRESS Famous Ameri-can Machines are all engineered, manufactured, sold and serviced by American! Floor Edgers Abrasive Paper Finishes Belt Sanders Belt Sanders Belt Sanders Belt Sanders Belt Sanders Belt Sanders Name..... Street..... CAN EKI City.....State..... FLOOR MACHINES . PORTABLE TOOLS





**BIG CAPACITY** Handling big boards is a sure, easy jab on big Atlas working surfaces. THE TABLE 15 42" LONGI Fence, itself, is 32" long, 4½" high. Fence quickly removes for surfacing wide boards.



**REMOVABLE CUTTER HEAD** Atlas cutter head removes for sharpening blades without disturbing their setting. An exclusive feature.

# BUILDER SAYS, "BEST ON THE MARKET"

F. L. Randall, builder, "wouldn't be without an Atlas 6" jointer," It saves him time and money in finishing out a bouse by enabling bim to do most of the mill work. Randall considers the Atlas "the best jointer on the market" - likes "its accuracy, the big table and fonce, and the easy way the fonce can be positioned."

Randall's experience is typical. Put an Atlas 6" jointer on the job and you cut time-costs and improve accuracy on almost every surfacing operation. The Atlas handles planing, edging, truing, beveling, and rabbeting fast and accurately. It is especially useful on cabinet work, built-in units, doors, windows, screens.

You'll like its size, speed, and smooth performance. Table is 42'' long — precision-ground for smooth work feeding. New two-way tilting fence is 32'' long,  $4\frac{1}{2}''$  high — has positive adjustable stops for  $45^\circ$  settings.  $2\frac{3}{4}''$ diameter cutter head with 3 blades spins 4100 RPM on large, sealed ball bearings. Exclusive features include a timesaving width-of-rabbet scale, and simultaneous blade positioning.

The Atlas 6" jointer can make money for you. Look into it. Send for the latest catalog.

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401 N. PITCHER ST., KALAMAZOO, MICHIGAN

DEPENDABLE QUALITY TOOLS SINCE 1911

### CONCRETE MIXERS Operation To prevent tipping, set the mixer level. On a hill, black the wheels. Before you leave the mixer, land the skip, set the brakes, turn the switches off.

1.

- Before you start the engine, place the control in neutral. Run the engine for at least 5 minutes before you engage the clutch.
- 3. Make sure everyone is clear before you move the skip up or down.
- To crank a motor, keep your thumb beside your fingers and pull up onequarter turn.
- 5. Mark the mixer with a red cloth flag by day, a red light at night.
- 6. Keep away from the drum opening when the mixer angine is running.



Courtesy National Safety Council

# **Concrete** Equipment

Safety in the use of concrete mixers, buggies, vibrators and other tools and machinery begins with proper selection. Gear guards, guard rails for loading skips, enclosures for engines, all should be adequate, and checked before the machine is set up for use.

Mixers should be set level, with wheels blocked. Planning the location of the mixer is necessary for smoothest flow of materials to the mixer and to the job. In urban locations, street traffic must be maintained with safety to both workers and the public.

Mixer operators should be experienced and familiar with the machinery. The skip should be lowered, brakes set, guards closed, and switches shut off and locked if possible before leaving the machine. All controls should be in neutral before starting the engine. If a crank is used for starting, the operator should not place the thumb around the crank handle; it is preferable to use a rope.

No one should put his head, arms or hands in the mixing drum while it is in operation. Only experienced men should clean the drum out at the end of each pour. If concrete is hardened in the drum, gog gles should be worn when removing it. The engine must be stopped and locked out of operation if men are working inside the drum.

The motor must be shut off when the tank is being refueled. Extra precautions should be taken in filling if the motor is extremely hot. Fuel tanks should be provided with a shut-off valve as close to the tank as possible in case of fire.

(Continued on page 97)

ailas



# More of what you want in CHEVROLET Advance-Design Trucks

- and here are 4 powerful reasons why:

**NEW ENGINE POWER-TEAMED WITH LOWER COSTS!** The improved Loadmaster engine with a new high compression ratio of 7.1 to 1, now delivers even more power. This great engine is standard on 5000 and 6000 Series heavy-duty and forward-control models—optional on 4000 Series heavy-duty models. In light- and medium-duty models the Thriftmaster engine offers traditional Chevrolet economy.

**NEW STAYING POWER-FOR GREATER DURABILITY!** Frames are heavier, stronger, more durable in all 1953 Chevrolet trucks. You'll find greater ruggedness and stamina. You'll find these trucks even brawnier and sturdier than Chevrolet trucks in past years-trucks that have long been famous for those very qualities. And this heavier construction brings new comfort and freedom from fatigue to drivers, too.

NEW BRAKING POWER—FOR QUICKER, SURER, SAFER STOPS! Two types of brakes on 1953 Chevrolet advance-design trucks provide greater stopping power and greater durability. "Torque-Action" brakes are standard front and rear on all trucks up to 4000 Series heavy-duty models. Extra-large "Torque-Action" brakes in front, "Twin-Action" type in rear are on Series 4000, 5000 and 6000 heavy-duty models.

**NEW ECONOMY-LOWERS COST OF EVERY TON-MILE HAULED!** Expect greater economy with Chevrolet trucks. New and greater stamina with extra gasoline economy cuts operating costs, maintenance costs in heavy-duty models with Loadmaster engine. And these great trucks list for less than comparable models of any other make! Chevrolet Division of General Motors, Detroit 2, Mich.

# CHEVROLET ADVANCE-DESIGN TRUCK FEATURES

TWO GREAT VALVE-IN-HEAD ENGINESthe Loadmaster or the Thriftmaster-to give you greater power per gallon, lower cost per load. POWER-JET CARBURETORfor smooth, quick acceleration response, DIAPHRAGM SPRING CLUTCH-for easyaction engagement. SYNCHRO-MESH TRANSMISSION - for fast, smooth shifting. HYPOID REAR AXLE-for dependability and long life. TORQUE-ACTION BRAKES-on light-duty and medium-duty models and on front of heavy-duty models. TWIN-ACTION REAR BRAKES-on heavy-duty models. DUAL-SHOE PARKING BRAKE-for greater holding ability on heavy-duty models. CAB SEAT-with double deck springs for complete riding comfort. VENTI-PANIS-for improved cab ventilation. WIDE-BASE WHEELS - for increased tire mileage. BALL-GEAR STEERING - for easier handling. UNIT-DESIGNED BODIESfor greater load protection. ADVANCE-DESIGN STYLING-for increased comfort and modern appearance.





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# One <u>BIG</u> Package — One <u>LOW</u> Price — One <u>REAL</u> Value!

Now, you can get the famous B&D Utility 6" Heavy-Duty Saw...the original "Professional Saw at a Popular Price"... PLUS the handy B&D Utility Depth and Bevel Attachment... in one complete package at one low price!

The B&D Utility Saw beats hand sawing 10 to 1; features abundant power, easy handling, maximum safety, job versatility, and quality construction! The B&D Utility Depth and Bevel Attachment permits depth adjustments from 0'' to  $1^{15}$ /<sub>6</sub>", accurate angle adjustments from 45° to 90°, or a combination of both!

Together, they give you a terrific value that you'll find hard to beat! For a free demonstration, see your hardware or building supply dealer. For free catalog, write: THE BLACK & DECKER MFG. Co., Dept. H-663, Towson 4, Maryland.





AMERICAN BUILDER

# (Continued from page 94)

Mixer operators subjected to severe exposure to cement dust should wear respirators of an approved type. Suitable ramps and runways must be provided for handling concrete, and should be kept free from grease, ice, snow and debris.

Power operated concrete buggies should be used only by men familiar with their operation. Excessive operating speeds and overloading should be avoided, and special attention should be given to guarding of belts, gears, and other moving parts. Buggies and wheelbarrows should not be used with underinflated tires. Barrows and buggies having weak or broken bracing should be repaired before being put into use.

Vibrators are powered either by gasoline engines or electric motors. Belt guards are necessary. Worn flexible shaft coverings should be repaired or replaced before use. Engines must be shut off when the vibrator is not in use, and electric units should have a non-locking switch so that the vibrator will not run unattended

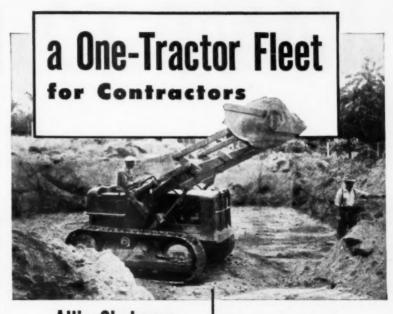
# Lumber, Heavy Units and Materials Handling Equipment

Straddle carriers and fork lift trucks are becoming more and more a necessary part of the builders' equipment picture. Their speed and ease in handling heavy loads at low cost effect great savings in time and labor. Increased speed of operation and heavier loads carry with them the need for loads greater safety consciousness. Straddle trucks should not exceed rated loads or speeds, especially on the highways. Proper securing of the load in transit is essential: the load holding mechanism, whether it is of the fork or claw type, chains, wire rope, or slings, should be inspected each day. Much of the efficiency of these units is secured by the proper carrying devices for different types of loads.

Operators of straddle trucks and fork lifts have an extremely high degree of responsibility for safe operation. Men using this equipment should be physically fit, free from erratic tendencies, and well trained in correct safe operation.

Lifting mechanisms require braking devices to permit safe lowering of loads. Positive locks to hold the load in position in transit are necessarily built into all machines of this type, and require periodic inspection. Limit stops are desirable to prevent over-running

(Continued on page 101)



# Allis-Chalmers HD-5G with your choice of

# 13 interchangeable Attachments

Weight with standard bucket, 16,200 lb. ... 40 drawbar hp. ... diesel-powered . . . hydraulic operation + 1 cu. vd. Standard Bucket \* ¾ cu. yd. Narrow Bucket ★ 2 cu, yd. Light Materials Bucket \* 1 cu. yd. Rock Bucket \* Teeth for All Buckets \* Heavy-duty Bulldozer Blade \* Heavy-duty Angledozer Blade \* Lift Fork (4.000-lb, lifting capacity) \* Crane Hook (5,000-lb. lifting capacity Trench Hoe \* Drag Bucket Tine Fork \* Rock Fork

Here is a versatile time-saver on any project. Equipped with Tracto-Shovel quick-change attachments, the HD-5G Tractor becomes a fleet of machines in one . . . hurries every phase of building, from breaking ground to final leveling and landscaping. For example:

Standard bucket (above) digs basements, moves and loads materials of all kinds, elevates bricks, shingles, etc. to roof height on small construction jobs.

Trench hoe (right) cuts a narrow, flat-bottom ditch to a depth of eight feet . . . ideal, too, for precision work on footings and other small excavations.







Straight or angled blade (left) handles clearing, final leveling, back-filling and landscaping.

The machine's usefulness is further expanded by other attachments - changes from one to another are made in 20 minutes. Write for new literature, or ask your Allis-Chalmers dealer for a practical demonstration,



# -use an on-the-job



A new house becomes a Delta saw-shop for cutting all material. An 8-foot roller conveyor section solidly mounted at each side of the saw makes work handling easy.

DIFFERENCE

# \$200 PER HOUSE? DELTA Radial Saw -



Accuracy saves time, too. Caruana points to clean, close fit of hip-rafters pre-cut on the job by the Delta saw. No time wasted in "fitting."



# says JACK CARUANA

# Buffalo builder saves at least that in "mill time" alone

One man operating a Delta radial saw cuts all the rough material for a house—everything from foundation to trim—in about 24 hours, saving at least \$200 per house in "mill time" alone, says Jack Caruana, veteran home and subdivision builder of Buffalo, New York. Saw output includes studding, joists, hip-rafters, door and window frames, cabinet members and the like. All other sawing is practically nil.

Actually Caruana's radial saw pays for itself over and over again every time two more houses go up.

"Stop in any time we're building and you'll find the saw running," says Caruana. "It never gets a vacation—never needs one. Maintenance—none."

This is the new secret weapon with which alert builders are conquering costs: Delta tool installations at the job. Why not find out about it—to your own handsome profit? Ask your Delta dealer, listed in the Classified Phone Book under "Tools" or "Machinery," and send the coupon for the new Delta Catalog.

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# How new Dodge "Job-Rated" trucks boost your hauling profits

More money-making payloads!—Just put a Dodge to work for you and watch it go to town on those hefty loads of lumber! Ideal weight distribution lets you carry bigger payloads without overloading. And, thanks to shorter wheelbases and wider front treads, an easyhandling Dodge can wheel through deliveries in less time with less effort. Enables you to make *more* trips per day!

More power-packed performance!—Get the right power for your job with a Dodge "Job-Rated" truck! Big, burly engines—from 100 h.p. to 171 h.p.—let you tackle toughest hauls with confidence! New super-safe brakes in 1through 4-ton trucks... no-shift Truck-o-matic transmission available in ½- and ¾-ton models! Your friendly Dodge dealer will gladly give you all the money-saving facts . . . and he'll make you a mighty good deal! ... says Ernest Lane, Co-owner, Berry & Lane, Napa, California

"To transport building materials at a profit, our trucks have to be as dependable as they are economical to operate. That's why we have bought five Dodge trucks in the last year—everything from  $\frac{1}{2}$ -ton to 2-ton. And we're going to keep on buying them, too!

"Our Dodge 'Job-Rated' trucks do a real, man-sized job for us. We haul material as fragile as window glass and as tough as beam lumber with equal ease in them. Believe me, Dodge trucks are certainly rated to our job!"



AMERICAN BUILDER



# "best of all" POWER TOOLS

Model 72 MALLSAW

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 Rugged Construction Here's one of the many MALLSAWS you can choose from to meet your exact requirements. This 7-inch blade model has a cutting capacity of 23 2 3/8"-cuts 2x4 at 45°. a 2x4 many features include: auto-matic telescoping blade guard, precision, heat treated gears, depth and bevel adjustment and rip guide

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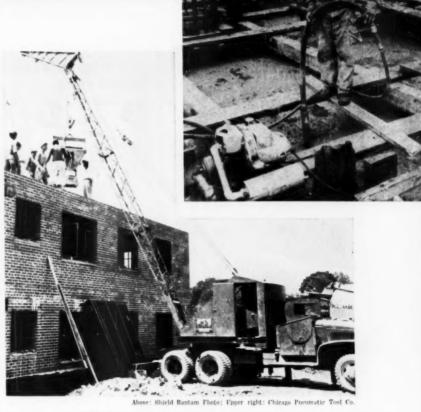
½" Capacity
Abundant Power
Lightweight

For holes-in-a-hurry (big or small) this famous MALDRILL does a real job. Powerful motoryet lightweight. Geared chuck, interchangeable handle, locking trigger switch, polished finish. Use in wood, masonry or steel. Converts to hole sawing, grinding, sanding, mar

sonry of steel. Conyerts to hole sawing, grinding, sanding, many other applications. Send for full details on Model 128 and the complete line of MALLORILLS and MALLSAWS for the building trade.

40 Factory-Owned Service Warehouses, Coast to Coast, To Serve Our Customers and Thousands of Dealers.





The easy maneuverability of this truck-mounted crane saves time and cuts costs on many construction jobs. Concrete vibrator (above) makes it possible to compact harder and better grade concrete at less expense and with easier access than by old hand-puddling methods. Floor laying is easy one-man job.

### (Continued from page 97) of the hoist mechanism. Gears, chains and cables should be en-

closed wherever possible. Cranes, because of the suspended load hazard and the relatively large working area involved, present particular problems. Safe loads must not be exceeded. The operator must be familiar with the allowable safe loads for different angles of the boom: many companies insist that charts showing safe loads for different boom lengths and angles be posted in the cab. Cranes must set level, on solid footing. If a truck crane with outriggers is on the job, these must be extended and blocked before hoisting materials. Many contractors install an electrical warning device to ring a bell when the angle of tilt of the crane becomes excessive.

Men working with crane operators should be familiar with the standard crane signals, and crane operators should move loads only upon instructions from the designated signalman where the load cannot be seen clearly from the crane cab. While there is some variation in different localities and companies on crane signals, those shown in the accompanying illustration are generally accepted in

### construction work.

All clutches, gearing, sprockets, etc. should be guarded in the cab. It has also been suggested that a wire mesh heavy screen be installed between the winding drum and the operator's cab for protection in the event of cable breakage. Cables should be inspected weekly, and replaced when excess wear is evident. as determined by someone familiar with the work, and having authority to direct such changes. Grapple hooks which show any deformation should be discarded and replaced, as the internal structure is weakened by reforming the hook.

### Trucks

Only qualified drivers should be permitted to operate trucks. In construction work, trucks are commonly of the heavy duty type, and safe operation demands better than average physical strength as well as driving skill. Each driver should know and comply with all local and state laws concerning truck operation. If a chauffer's license is required, this should be obtained and carried at all times.

Passengers should be carried on trucks only on the seat next to the driver, except under other conditions as specified below. Riding on the running boards, fenders, or



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Courtesy National Safety Council

bumpers of the truck is not to be allowed at any time. If the truck is used for transporting men, fixedin-place, but readily removable scats should be provided. It has been found that seats running lengthwise of the body are safer than those running crosswise. A tailgate or crossbar at the back of the truck should be high enough so that men may not use this as a scat. If a truck without seats is used for transporting men, men should be seated on the floor of the body, not standing or sitting on the sides.

Truck tires are subjected to severe usage. Tire changing, removing of tires from rims, and replacing and inflating should be done only by men familiar with this procedure. If the driver adds air to the tires during the day's work, he should protect himself against a bursting tire by keeping the face averted from the tire, and by using the fenders or the body of the truck as a shield.

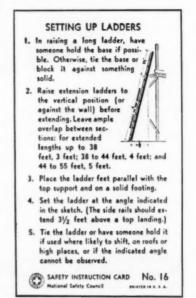
If trucks are fitted with power take-offs, these should be used only by authorized workmen. The same safety precautions covering the general operation of winches will apply to this work.

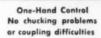
### Scaffolding

Scaffolding of many types is essential to construction work. The use of scaffolds exposes workmen to definite hazards associated with overhead work. Resulting accidents, usually of a serious nature, include falls of persons and damage or injuries caused by falling objects. The importance of preventing such types of accidents is shown by the fact that falls and falling objects account for one fourth of all accidents and one third of total compensation costs. Good design and construction dictates that a scaffold he designed to carry at least four times the anticipated load. The erection and removal of scaffolds should be done by men experienced in the work. having enough knowledge of design to insure safety in use. The use of make-shift materials such as boxes, barrels or other unstable materials as supports for scaffolding is not allowable at any time. When scaffolds are erected over sidewalks or other pedestrian areas, suitable protection must be ar-ranged. Suitable means of access, such as ladders, ramps or runways are necessary. Portable ladders are not recommended for scaffolds over 12 feet in height. If used, both top and bottom should be secured. and the top of the ladder should extend at least 31/2 feet above the scaffold.

Prevention of scaffold accidents includes more than sound design and construction of the scaffold. Accidents occur on the best scaffold if unsafe practices are permitted in their use. For scaffold work, the first rule should be the selection of men physically and mentally suited to high level work. They should be placed under the supervision of alert and safety minded foremen.

During recent years the use of tubular steel scaffolds has greatly increased. They are recommended, especially for heights of five or more stories. They are fireproof, easily erected and dismantled, and have low wind resistance. This type of scaffolding may either be purchased outright or rented. If rented, the rental may include erection and dismantling.





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cient Bradford Saws. Write for com-plete details of the Bradford dealer plan.



# Ladders

Ladders should not be used as working bases except for short periods of time for light work, or in case of an emergency. Ladders. whether purchased or made on the job, should be of sound straight lumber, having side rails suitably in proportion to the length, and with strong, securely fastened cleats or steps.

All workers on the job should observe precautions in the use of ladders:

1. Place ladders so that the distance from the wall to the foot of the ladder is about one-fourth of the ladder height.

2. Do not use ladders as a scaffold or runway in a horizontal position. Ladders are not designed to carry loads in this fashion.

3. Never place a ladder in front of a door which may open toward the ladder unless the door is locked, blocked, or guarded.

4. Do not place a ladder against a window sash or pane. Fasten a board across the top of the ladder to give a bearing at each side of the window.

5. Place portable ladders so that both side rails have even footing. Provide solid footing on soft ground to prevent the ladder from sinking.

6. Never lean a ladder against an unsafe support-loose boxes, barrels, or a round object.

7. If you use a ladder on a roof. securely lash or fasten the ladder to prevent slipping.

### Hand Tools

Despite the increasing use of power equipment, many building operations are performed with hand tools, which are still the source of countless injuries. When a hand tool is misused or not in good condition. it becomes hazardous, and may cause injury to the user or some other person.

Behind all hand tool accidents there are one or more primary causes.

1. Use of a wrong or improvised tool, such as a file for a pry, or a wrench for a hammer.

2. Use of a defective tool: a chisel with a badly mushroomed head, a dull saw, or a sledge with a split handle.



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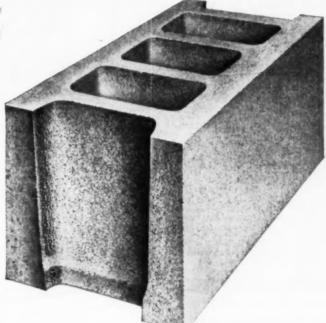
**BELSAW MACHINERY CO** 4503 Field Building Kansas City 11, Mo.



Diesel-powered crawler tractor filling in around basement.

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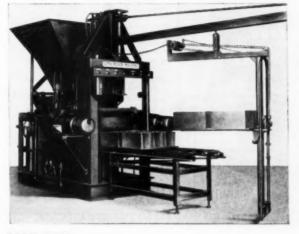
STRONG... IT BUILDS BETTER UNIFORM... IT LOOKS BETTER TRUE... IT GOES UP FASTER



# THAT'S WHY LITH-I-BLOCK BUILDING COSTS LESS!

Quality in the concrete masonry you specify is directly measured in dollars and cents saved. And, with Bonus Quality Lith-I-Block, you will achieve the greatest savings, every time for this Prince-among-block gives you threeway superiority that assures a bonus value for every dollar you spend.

Lith-I-Block is accurate in every dimension so that masons can work faster with far better results. It never requires costly and time-consuming cutting and fitting and its smooth, true edges present no handling problems. As a result, you accomplish a savings in labor alone that is



reason enough to specify Lith-I-Block for every job. But Lith-I-Block quality doesn't stop there! It has an almost unbelievably uniform texture . . a surface quality that makes the most beautiful wall you've ever laid eyes on. And your Lith-I-Block wall not only excites a craftsmans pride in good work, it also pays an extra bonus in customer satisfaction that builds your reputation and your business.

Another Lith-I-Block bonus that will pay you many times over is its rock-like internal strength. No matter what aggregate you prefer or what type of block your job calls for, you can be sure that your Lith-I-Block manufacturing process agitates the aggregate as it is fed into the mold box so that every nook and corner is properly filled. There are no lumps or voids to create weak spots and cause you grief when the job is done.

Yes, Lith-I-Block is good to look at, easy to handle and thoroughly reliable. It is the quality block that is made to serve best in modern building . . . and save you money at the same time.

WRITE FOR THE NAME OF YOUR NEARBY LITH-I-BLOCK PRODUCER



Lith-I-Block is made to rigid quality standards on Machines manufactured by the Lith-I-Bar Company, Holland, Michigan.



COLD CHISEL CAUTIONS I. Use only tools in good condition. Never use a burred chisel or a hommer with a mushroomed burred head. 2 If the chiral is not BIGHT - A properly tempered or sharpened for the job, or if it is rea defective in any way, rêturn it to the tool room. 1. Wear angeles prolecting your eyes from flying parti- The safest way to hold a cold chisel, whenever possible, is between the thumb and forefinger, palm up. (See Diagram "A".) If the tool is gripped in the fist (as in Dia-gram "B") and a blow misses the chisel head, this is almost sure to result in painful and some. times permanent since to resurt in pointed and same-times permanent injuries to your knuckles and hands. (Black spots on the diagram indicate where these injuries can be made.) 6. Do not attempt to hold a cold chisel if your hands are numb with cold, especially if another person is wielding the hammer or sladge. Protect other persons from flying chips by placing suitable screens. Two men chipping an the same material should work back to back. SAFETY INSTRUCTION CARD No. 483 National Safety Council Courtesy National Safety Council 3. Incorrect use of tools: failing

 Incorrect use of tools; failing to take a practice swing with a sledge, pulling on pliers in line with the face, or striking two hardsurfaced tools together.

4. Failure to put tools away; a crowbar left where it may be tripped over, a chisel left on a bench, or a hammer left usar the edge of a wall

Safety pointers in connection with the more common hand tools may be briefly mentioned:

Chisels. Cold chisels should be adequate in size for the work so that they will not spring or buckle when struck. The point should be kept sharp, ground to a 60 degree angle. Some workers prefer to



Courtesy Automat Sarety Council

AMERICAN BUILDER

BUY CLIPPER CUT FASTER LAST LONGER AT LOWER COST

HERE'S WHY ... 4 OUT OF 5"

> **Clipper Superior Blades** are guaranteed to . . . "Provide the Fastest Cut

... at the Lowest Cost!" MODEL C-130 ONE OF 5 MODELS GAS OR ELECTRIC POWERED

.

MODEL

**Clipper Superior** Blades are manufactured under rigid control . . . assuring con-sistent quality. You are guaranteed peak performance 31 the lowest possible cost with every blade.





ABRASIVES Any masonry material can

ABRASIVE

1003

Any masonry material can be cut in seconds with either a "WET" or "DRY" specification. New type Clipper Abrasive Blades approach the cutting speed of diamonds.

lipper DIAMOND No other means of mason-ry or concrete cutting can equal the cutting speed of



APRIL 1953



SAFE SCAFFOLDING MEANS FAST, ECONOMICAL BUILDING. Satway scattolding is safer in more ways than any other scaffolding you can mention. Thousands—yes, thousands—of construction firms, contractors, industrial firms are using millions of dollars worth of Safway scaffolding to speed their construction projects safely and efficiently.

For more information contact the Safway representative in your city, or write to Safway Steel Products, Inc.



Workmen safely reach into the sky 75 feet high. They're using Safway scatfolding to dismantle a heavy steel stack in Minneapolis. Safway carbon steel frames are solidly joined with using nuts to tubular steel cross braces for strength. All welds are made by master welders.



Weather and corrosion won't hurt the Safway scaffolding used in this 185 foot ski slide in Los Angeles. It's corrosion and rust resistant. Special phosphate bath converts surface of Safway steel scaffolding to non-metallic oxide. Baked-on weather resistant paint gives exite protection.



Standard Safway equipment is easily assembled to fit the curved bow and sloping sides of this vessel at the U. S. Navy yards. Only a few basic types of interchangeable members are needed to assemble scaffolds of any required shape and height.



No wonder builders like balanced Safway steel scaffolding! It's engineered for structural stamina-Eav-to-assemble units speed erection of scaffolding and make dismantling simple. Pictured here is the lowest cost steel scaffold on the market for loads up to 50 lb. per sq. ft. with heights up to 40 ft.



round off the corners of the cutting edges to prevent breaking and flying chips. Chisel heads which have mushroomed should be ground down before being used. Goggles should be worn when chipping concrete, cast iron, or other brittle material.

*Wood Chisels.* Wood chisels should always be used so that the direction of the force is away from the body of the user. Chisels must be kept sharp; a duil chisel is more likely to bind or slip, throwing the workman off balance. The work being cut should be securely held, free of nails and knots.

Saws. Saws should be carefully selected for the work they are to do. They must be kept sharp and set to prevent binding and slipping when starting a cut. A safe way to start a saw is to first take an upstroke, guiding the saw with the thumb and forefinger of the left



hand, holding it at about a 45 degree angle to the work. Remove the left hand at the end of the draw stroke. The saw should not be crowded or pulled back so far that it leaves the cut, as it may buckle or break, causing injury.

Crowbars. When a crowbar is needed, the proper shape and size should be obtained. Makeshifts such as a piece of pipe or reinforcing rod should not be used, as they might slip and cause injury. The crowbar should have a point or toe of such shape that it will grip the object to be moved, and a heel to act as a pivot or fulcrum. In some cases, a block of wood under the heel will prevent slipping.

# 6 Jaeger machines that cut your building costs



Jaeger's shorter mixing cycle gives you more batches per day

5 to 7 seconds charging with Jaeger's "Skip Shaker" loader, equally fast discharging with Jaeger's bigger bucket and flight blades, shortens every mixing cycle, gains time for extra batches, bigger yardage every day you work.

No risk of "down time" either, in your

busy season. Jaeger mixers roll on chilled Timken bearing rollers and tracks of high carbon steel machined true on the drum. Heavy duty automotive transmissions and bigger engines with power to spare give years of reliable service. Sizes 6S, 11S, 16S. Ask for Catalog M-10.



# $3\frac{1}{2}$ and $6\frac{1}{2}$ ft. Plaster-Mortar Mixers save labor and plaster

Jaeger "Power Hoe" Plaster-Mortar Mixers, with their multi-blade pug mill mixing action, supply better mixed, easier spreading material that is full strength even when carrying more sand. Equipped with Timken bearing drum shaft with Jaeger leak-proof bearing seals, bigger Wisconsin engines with automotive transmissions and drums of heavy gauge steel. 31/2 ft. model is big producer in compact size — only 34" shoveling height, only 29" wide.



# 3 1/2 5 Auto Loader produces more yards per day

The "Auto Loader" with Power-Shaker Hopper produces 12 to 15 more yards of concrete daily with no increase in wages. It can be loaded while previous batch is being mixed, then hopper automatically shakes load into drum in a flash. The "Auto Loader" is engineered for long life ... machined steel drum tracks, automotive transmission.



### Jaeger self-raising "hoister" tower "saves as much as \$59 a day"

One contractor tells us of a typical example. He did the work of 10 to 12 hodders with 2 wheelers and his hoist operator.

Assembled on ground, raised by its own power and easily moved as needed on its own skid base, this 1-ton Hoister tower eliminates hodders and scaffolding. It operates either material cage or 1 yard bucket. Standard height is 37', can be extended to 67'. Automatic safety device positively prevents falling should cable break. Send for Bulletin HS-1.



"New standard" compressors 15% to 20% larger capacities (75 ft. instead of 60; 125 ft. instead of 105, larger sizes proportionate). Maintain 90 to 100 lbs. pressure at modern tools, instead of weak 70 lbs. Increase work output 30-40% with same men and tools. Catalog JC-1.



"Sure prime" pumps Heavy duty construction and big capacity in light, portable small units —  $1\frac{1}{2}$ " and 2" sizes in aluminum or semi-steel, 5100 to 10,000 gph. catalog P-10.

# THE JAEGER MACHINE COMPANY

521 Dublin Avenue, Columbus 16, Ohio

Sales, Rentals and Service in 153 Cities of the U.S. and Canada

# is Achieved with VIBRAPAC BLOCK

Beauty

Hondds

BATCH

MIXERS

Today — VIBRAPAC Modular Concrete Masonry Units are available in a variety of attractive designs. These designs enable any architect or builder to originate plans that will give a home, or other building structure, both pleasing appearance and individuality.

Besser Super Vibrapac machines are versatile. They make ALL types and sizes of high-quality masonry units on ONE set of Plain Pallets. What's more, the Vibrapac machines are fast and dependable. They set the pace for modern, automatic production and handling devices, producing maximum output of high-quality block with no down time.

Sell your customers on the BEAUTY as well as PERMANENCE of Vibrapac Concrete Masonry for both exterior and interior construction. It assures a lifetime of better, safer, more satisfactory living.

# BESSER MANUFACTURING CO., Alpena, Mich., U. S. A.

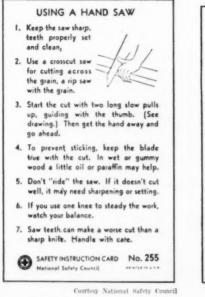
Front Pallet Feed VIBRAPAC . . . the fully automatic concrete block machine. One man removes finished block with power off-bearing hoist and, with no lost motion, returns empty pallets to the Vibrapac machine FREE BULLETIN — Ask for copy of bulletin illustrating the many standard masanry that can be Vib SUPFP SINTERING SK **BLOCK & BRICK** ACROW **ROOF TILE** LOADERS CUBERS VIBRAPAC PLANTS CENTERS MACHINE

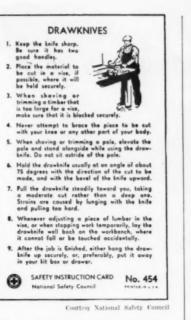
Crowbars not in use should be stood up so that they will not fall, or laid down where they will not create a stumbling hazard.

Jacks. A jack with a high enough rated capacity for the job must be used. It is good practice to block the load being raised, to prevent its dropping if the jack should slip or fall. Jacks should be in good condition, well oiled, and should be set firmly on a solid footing. The jack handle should be removed when not in use, as it might be struck by a passing employee or vehicle, knocking the jack from under the load and causing serious damage or injury.

Wrenches, An adjustable wrench should be placed on the nut with the open jaws facing the user if possible. In this position, the force applied tends to urge the wrench onto the nut. According to manufacturers, the lower jaws on adjustable wrenches are weaker than the fixed jaws. One manufacturer found that a 10-inch wrench used in the correct manner described would take a 250 lb. pull at the end of the handle. However, when the wrench was reversed, it began to slip with 75 to 100 lbs, of pull at the handle end.

Pipe Wrenches. Many men have been injured when pipe wrenches slipped on pipe or fittings, especially when working in overhead locations on ladders and scaffolds. Jaws should be sharp and clean, and chain tongs should have both jaws and chain in good condition. The use of a wrench of the wrong size is also a source of accidents.





Too small a wrench will not give a proper grip or leverage. Too large a wrench may break a nut or fitting causing a slip or fall.

The use of a pipe slipped over the handle for added leverage can strain either the wrench or the work to the breaking point. Wrench handles are designed to be long enough for the maximum safe pressure to be applied to that particular wrench.

Screwdrivers. The common screwdriver is probably the most used—and abused—tool. The practice of using screwdrivers as punches, chisels, wedges, and pries should be discouraged. If so used, they will become unfit for the work





If you use it please send me a.

MASTER

NO STEEL TAPE RULES 1 ....



Erecting structural steel, pile driving, placing and removing forms, loading and unloading construction materials and equipment - these are just a few of the many construction applications of a Bucyrus-Erie 22-B crawler crane. And it can do each job for you at considerable savings in time and money. Here's why:

> High Maneuverability lets the 22-B work anywhere you want it, whenever you want it.

> Independent Boom Hoist permits boom angle to be changed while machine is swinging or propelling, while load is being hoisted or lowered.

> Accurate Reliable Boom Control with both raising and lowering full power-controlled by one lever makes it easy to maintain fast operation. A friction clutch on front drum shaft controls hoisting with speed governed by engine throttle. And, an automatic silent ratchet pawl prevents boom from lowering faster than front drum shaft is turning with consequent light service on brake.

**Open-Throated Boom** makes it easy to rig for 2, 3, or 4 parts of line without taking off sheave guards. 55E53

**BUCYRUS-ERIE** COMPANY

SOUTH MILWAUKEE . WISCONSIN

Quickly convertible to dragline, clamshell, shovel, and dragshovel, the 22-B has many additional applications on construction projects that will mean added savings for you, Write for complete

information today.

they are intended to do. Moreover. a broken handle, bent blade, and dull or twisted tip may cause the screwdriver to slip and cause a serious hand injury.

A screwdriver tip should fit the work. A sharp, square-edged bit will not slip as readily as a dull one, and requires less pressure. Tips which are rounded or dull should be filed rather than ground. as the heat from grinding may draw the temper. Insulated screwdrivers should be used on live electrical work-a practice which should be generally avoided if possible

Hammers Hammer handles should be securely fastened to the head with wedges or screws. The handle should be of the correct size and length. smooth. and properly shaped to fit the hand. Selection of the right hammer is important. One that is too light is as bad as one that is too heavy-both are hard to control. Carpenters' or claw hammers are designed primarily for driving nails, and should not be used with cold chisels or other hardened tools, as the heads are so tempered that they may chip, causing injury.

# Hand Power Tools

The general types of hand power tools include:

1. Abrasive tools such as portable grinders, sanders, polishers, and bench and flexible shaft grinders.

2. Drills.

3. Saws, other cut off tools, routers, etc.

4. Assembly tools such as screw drivers, nut runners, etc.

5 Hammers

6. Sheet metal shears.

The selection of the right tool for the job is an important factor in preventing accidents. In addition to selecting tools of adequate capacity for the work, of good quality, other factors which may be considered are:

Motor rating

Spindles, gears, bearings, etc.

Cables, plugs, grounding connections

Chuck

Weight and balance

Other limiting factors, such as

the need for working in close quarters, etc.

Portable electric tools are designated as "light duty," "standard duty," and "heavy duty" according to the frequency of use cycle and the nature of the work to be performed.

(Continued on page 116)

# <image>

# the OLIVER Model "B" Crawler with ware loader

Long considered the finest tractor-loader combination in its class, the Oliver-Ware Model "B" is now built for even greater performance. There are now 5 lower track wheels instead of 4, and the front idler wheel is considerably larger. This means you get more track on the ground, greater stability, more traction, easier handling all the way around. It means faster loading cycles, more work done per day, lower costs and more profits for you.

You still get the hydraulically-controlled Ware loader-designed and built exclusively for the Oliver Model "B" Crawler. 110° bucket rotation and 28° "tilt back" give you a full bucket every time. Bucket level is automatically maintained when lifting load, preventing wasteful spillage. You can control speed of discharge. And, even with the "tilt back" action, you still have a 32° (from vertical) dump angle... a control range no other loader can surpass.

For complete information on how the Oliver-Ware Model "B" tractor loader can cut costs for you, see or write your Oliver Industrial Distributor.

and crawler tractors



A complete line of industrial wheel

# You can drive studs <u>ARROW STRAIGHT</u> into steel or concrete with MODEL REMINGTON 450 REMINGTON STUD DRIVER

The widest power range of any powder-actuated tool

The Model 450 Remington Stud Driver is the most efficient fastening method in use today. Its exclusive advantages are unequaled by any other powder-actuated tool.

You get consistently straight driving on every type of fastening job with the long heel cap on all Remington cartridges. It acts as a perfect gas seal and provides extra power. These colored heel caps clearly mark the six different 32-caliber power loads that are available. You can select the *right* cartridge for each job quickly and easily.

The Remington Stud Driver needs no separate parts for power control or loading—nothing to lose or break. Just a twist of the wrist opens the Model 450. Insert stud and power cartridge as a unit . . . close and you're ready. Triple safe, this superior tool has a separate lever that must be depressed and *held* with one hand before and during squeezing of the trigger with the other hand. Two *additional* devices prevent operation except in proper fastening position.

Completely self-powered, the Model 450 sets up to 5 studs per minute in fastening steel or wood structural pieces to concrete or steel surfaces. Its light weight—only 5½ pounds—makes it ideal for use overhead or in confined spaces. To speed operation further, an exclusive ejector snaps the fired case out of the tool instantly—no fumbling, no tools needed.

Test-proved to be the world's finest and speediest fastening system, the Model 450 Remington Stud Driver is made by Remington Arms Company, Inc., *America's oldest sporting arms manufacturer*.



Listed & Approved by Underwriters' Laboratories, Inc.

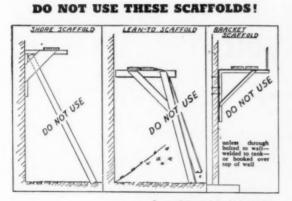
Industrial Sales Divisi Remington Arms Com 939 Barnum Ave., Bri	on, Dept. AB-4 pany, Inc. dgeport 2, Connecticut
Please send me my p cut my fastening costs	free copy of the new booklet showing how I can b.
Name	
Position	
Firm	
Address	
City	State

O the second sec

**NEW, FREE BOOKLET** shows you a hundred different ways the Model 450 Remington Stud Driver can speed your construction fastening. Packed with illustrations, it tells you where and how this tool can save time, reduce fatigue and cut costs. Send in the coupon below for your copy.



114



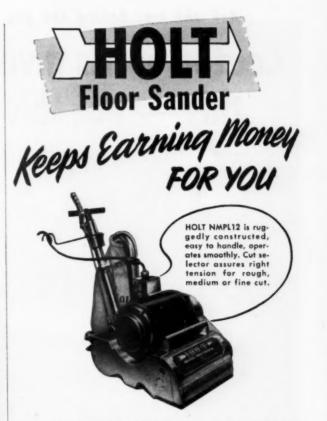
Courtesy California Industrial Commission Types of scaffolds which should not be used.



Mall Tool Photo

This heavy portable drill may be used for construction and maintenance work. Drill has interlocking reversing switch, can be equipped to do nut-running and lag-screwing.

	Working Limit Load	Double (Two-Leg) Sling					
Diameter Pounds of for Link Single-	Degree of Angle With Horizontal						
Stock in Inches	Vertical Sling	60 Degrees	45 Degrees	30 Degrees	20 Degrees	10 Degrees	
1/4 " " " 1/2 " " 1/4 " " " 1/4 " " " 1/4 " " " " " " " 1/4 " " " " " " 1/4 " " " " " " 1/4 " " " " " 1/4 " " " " " " " " " " " " " " " " " " "	2,750 6,600 11,250 16,500 23,000 28,750 38,750 38,750 44,500 57,500	4,750 11,400 19,250 28,500 39,800 49,750 67,000 77,000 100,000	3,900 9,300 15,750 23,250 32,500 40,500 54,750 63,000 81,500	$\begin{array}{c} 2,750\\ 6,600\\ 11,250\\ 16,500\\ 23,000\\ 28,750\\ 38,750\\ 44,500\\ 57,500\\ \end{array}$	$\begin{array}{c} 1,875\\ 4,500\\ 7,600\\ 11,250\\ 15,700\\ 19,650\\ 26,500\\ 30,300\\ 39,000\\ \end{array}$	950 2,275 3,850 5,700 7,950 9,950 13,400 15,500 20,000	



### DEMOUNTABLE DRUM CUSHION CHANGES IN MINUTES

Why let damaged drum cushions tie-up floor sanding 12 to 24 hours? HOLT demountable drum cushion (patented) can be replaced in minutes by the operator right on the job...so sanding goes on almost without interruption.

You cover more floor, too, with HOLT highspeed cutting. Sure-grip clamps keep paper "in." Self-adjusting, double belts stay tight. Correct design and dynamic balance eliminate chatter and vibration ... assure smooth, craftsman-like work.

Do floor jobs the easy, time-saving HOLT way. For further information and name of nearest dealer, write your name and address in margin of this ad and mail TODAY.



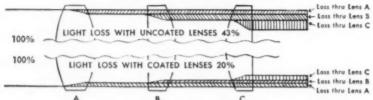


Model 3000, \$185.00,\* complete with tripod.

# with a White Universal Level-Transit

H ERE'S what coated optics can do for you. You can put in a full day without cycestrain or headache. There's less chance for a mis-reading. You get a clear, sharp sight — not a fuzzy image. What's more, you get your reading in far less time. Check this diagram. See for yourself how coated optics pass through up to 40% more light, provide a clearer image contrast.

COMPARISON OF LIGHT PASSAGE



And there's more!



Prices subject to change without notice.

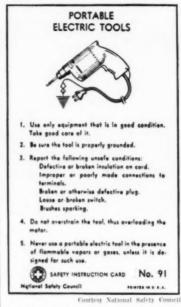
White Universal Level-Transits also offer you internal focusing, guarded vertical are and ball bearing race which insures smooth operation, even in sub-zero temperatures. Check one out on your next trip. You'll soon be convinced a White can make your work faster, easier, more accurate. Write for Bulletin 1053. DAVID WHITE COMPANY, 311 W. Court Street. Milwaukee 12. Wisconsin.

Expert REPAIR SERVICE on all makes, all types of instruments

## (Continued from page 112)

A portable tool presents many of the same hazards as a stationary machine, in addition to those of handling. Potential results of these conditions are electrical shock, burns, cuts, bruises, falls, strains and explosions due to the ignition of vapors by electrical sparks or friction.

These hazards can be considerably reduced by safe operating practices, choice of safe tools, and proper tool maintenance. Because of the sparks from brushes and commutator, portable electric tools should not be used in any area of inflammable gases, vapors, or dust, unless designed specifically for this work.



Fatal electrical shocks have been caused by failure of the insulation between the current-carrying parts and the frame of the tool. This hazard may be reduced by grounding the frame using three conductor power cord, by using tools having insulated exterior surfaces, by providing supplementary insulation for the operator, or by a combination of these measures.

Switches for portable tools should be well made, as no other part of the tool is probably subject to as much hard wear and tear. Switches should be of the safety type, which will operate only when held in position by the operator, and should be guarded to prevent starting by accidental contact with other objects.

Grinding Wheels. Grinding wheels mounted on the arbors of portable tools are subjected to extremes of abuse. They should be (Continued on page 120)

AMERICAN BUILDER

Put a **HOMELITE** CARRYABLE PUMP on YOUR Job and Eliminate Delays

On any repair or construction job, water causes delays. And delays cost money ... particu-

larly when men have to stand around idle.

Put a Homelite Pump on the job and watch those delays disappear. In no time it gets to the job ... no trucking problems, no planking, no pushing, no pulling. One man carries it and sets it up right where you need it. Quick starting ... and with the fastest self-priming... a Homelite will pump up to 15,000 gallons per hour without clogging or trouble. It draws water 28 feet and of great importance it will keep seepage at strainer level automatically.

Figure it out, with the time . . . which is money . . . saved by a fast-action Homelite it wouldn't take many jobs to pay for a Homelite. Possibly, one job would be enough. Write for a free demonstration.

Manufacturers of Homelite Carryable Pumps • Generators Blowers • Chain Saws



Canadian Distributors: Terry Machinery Co., Ltd., Toronto, Montreal, Vancouver, Quebec.

504 RIVERDALE AVENUE . PORT CHESTER, N.Y.

# BLACKHAWK A LOW COST, MOBILE Trenchtlog

A Ford or Ferguson tractor mounted, versatile, small trencher with big trencher performance, digs up to 800' per hour, with wide range of depths and widths - up to 7' deep, 20" wide. One man and a Trench Hog do the work of 40 hand laborers. Ideal for builders, plumbers, electrical contractors, utilities, municipalities and pipeline contractors.

- · Depths accurately controlled, hydraulically.
- Cutters furnished in 6" to 20" widths. Easily changed to suit the job. Special cutters for tough soils and frozen ground.
- · Optional equipment includes one side dirt delivery attachment to deposit spoil on either right or left side of trench.
- · Crumbers available to provide clean, smooth, accurate trench bottom.
- Choice of 7 digging speeds.

cuts all

-----

BELLEVILLE, ILLINOIS

resilient floor tile

- Independent wheel control for straighter line trenching and turning corners.
- Boom raises upward about 90° for transport.
- 4' bulldozer available for backfilling.

# THOUSANDS IN USE-EVERYWHERE



bevels metal wall tile

AMERICAN BUILDER

MONROVIA, CALIFORNIA

BIG

-----

Any idea of how long a good electric saw will stand up? Five years? Ten? Guess again!

In Columbus, Ohio, a couple of months ago, we came across a builder who owns one of the first Porter-Cable Saws produced. It's a Speedmatic K-8, built in 1926.

Asked to comment on his saw's performance, Mr. Kerby O. Kesler told us . . . "It has been in constant use by my men and myself for more than 25 years. This Speedmatic still cuts fast and accurate, and is capable of more years of service."

> See the latest Porter-Cable Saw— Model 508 shown above—at your Porter-Cable dealer's. Check your classified phone directory or write for name of nearest dealer. Send for free 40-page manual on saw operation.

ADEEdmotic SDS

PORTER-CABLE MACHINE CO., 1004 N. SALINA ST., SYRACUSE 1, N. Y APRIL 1953 • Like Mr. Kesler's "Oldtimer" shown here. all Porter-Cable Saws are built to last years longer. Each is given a run-in test which checks the precision, assembly and fit of all parls. We guarantee every tool is free of mechanical or electrical defeels.

**Porter-Cable** 

Quality Electric Tools

lears from now,

you'll still be

using it !



(Continued from page 116) handled with all possible care to avoid cracking the wheel, as a wheel on bursting throws pieces with terrific force. Grinders must wear goggles and keep out of line with the wheel. Manufacturers' recommendations should be followed as to operating speeds and sizes of wheels. All grinding wheels should have guards as far as it is possible to install them.

*Circular Saws.* There is very little danger at ordinary speeds of circular saws bursting solely from centrifugal force. Principal dangers are from a saw cracking, from striking something, or from a tooth or several teeth breaking away. Operating speeds should certainly not be greater than those for similar size bench saws, and because of the potentially greater abuse given to portable tools, the manufacturers' recommendation of 9,425 peripheral feet per minute should never be exceeded by more than 20 per cent.

The greatest hazard in the use of portable saws is from being cut by the blade. Most tools now on the market are designed with effective guards. The real danger exists, not while the saw is cutting through the work, but at the beginning and completion of the cut. It is most important that the guards provide effective protection as the saw enters the work, and after it leaves the cut.

Powder Actuated Hand Tools. While powder actuated hand tools are not new, they have only recently come into prominence throughout the building industry. All powder operated hand tools use blank cartridges as a source of power. The tools are so designed that the energy created by the burning powder is confined and controlled so that it is not released until it has reached its maximum value. This action delivers an instantaneous high velocity to the pin or stud.

All manufacturers of this equipment provide safeguards against accidental discharge. Both hands are required to operate the device, and usually a spring loaded sleeve must be rotated or held in position before the firing pin can be released.

Workmen should not be permitted to operate the tool unless they are trained and authorized to do so. Manufacturers' instructions and recommendations should be carefully followed. In many cases, the manufacturer will train men for proper use in all types of work.



AMERICAN BUILDER

 Here are two mixers that are real producers. They speed up work, save many man hours a year and are known everywhere for their quality and rugged construction. See your CMC distributor or write for catalogs.

Two Great MONEY

# WONDER "SUPER SIX" HOE TYPE MIXER

• Liberal six foot capacity. No finer machine built for mortar or plaster. Available also in lower priced De Luxe model. Smaller and larger hoe type mixers to fit any job condition.



# • WONDER 31/2S TILTER

The original and still by far the finest tilting mixer built. A full half-bag profit builder. Good for mortar, too.



The correct stud and cartridge should be selected for the job. If there is doubt, a test shot may be fired, taking proper precautions to prevent injury to the operator or others nearby.

Studs should not be driven too close to the edge of brick, concrete, or wood surfaces, because of their tendency to crack. Suggested clearance is about six inches, depending on the thickness of the wall.

Masonry and concrete spall can be reduced by firing through a thin metal disc or heavy waxed paper board like a milk bottle top.

The operator should be provided with adequate face and eye protection. Persons should not stand too close to the operator. The tools should never be held horizontally or pointed at anyone, and fingers and hands should be kept from in front of the barrel. These tools should not be used in an explosive atmosphere.

### **Production Power Tools**

Table Saws and Radial Saws. Both table saws and bench saws present a serious hazard from the blade of the saw. This can be minimized in radial saws by the use of guards which cover the blade except for the portion which passes through the work. The carriage of the saw should return to position near the vertical column of the saw after each cut.

Bench or table saws should be at all times fitted with guards which cover the blade except when in use. A splitter in back of the blade will prevent binding of the work, with the danger of boards being thrown back at the operator with serious force.

Blades should be sharp and properly set. The correct type of blade should be used according to the work. It is both unsafe and inefficient to use ripping blades for cross cutting or vice versa, and a thin blade with little set for finish cuts should not be used on heavy rough lumber.

Operators should wear goggles at all times, and may require respirators in enclosed areas. It is better to provide an exhaust system if work is to be performed in an enclosed space for any length of time.

Several models of table saws have the blade mounted on a swinging arm, so that it is normally below the surface of the table, and is raised through the stationary work by a foot pedal or hand lever, providing an additional degree of protection.

Masonry Saws. Saws for cutting

tile. cement block. and similar masonry units with abrasive blades are rapidly replacing hand cutting of these materials. It is essential that the correct cutting blades be used and operated at the specified speeds. As these abrasive wheels are of thin section. there is a considerable hazard from flying pieces of shattered wheels. Masonry saws are fitted with rolling carriages that insure feeding the work into the blade without binding, but the rate of cutting must not be excessive, as this wears blades rapidly, and presents a breakage hazard.

Adequate ventilation is necessary because of the large quantities of dust produced. Blowers for exhaust must be set up in any enclosed location, and it may be advisable for operators to wear respirators as well as goggles in some instances.

Pipe Machines, Threaders and Cutters. Operation of pipe machinery should be restricted to properly qualified and instructed workmen, as there is considerable hazard from exposed rotating parts. Reamers, cutters, and stocks should not be held on a rotating pipe with the hands, as the tool may catch and cause serious injury. All gears and other parts of drive mechanisms should be guarded or enclosed.





# GREATEST FORD TRUCKS EVER BUILT!

For faster handling on any job, Ford Trucks have new, shorter turning. New, wide-track, setback front axle provides sharper turning angle—easier maneuvering and parking.



Fifty Years Forward on the American Road!

<image><image>

Completely New for '53 FORD ECONOMY TRUCKS

# NEW TIMESAVING FEATURES GET JOBS DONE FAST!

Ford Economy Trucks for '53 are completely new from the tires up! New cabs, new chassis, new power, new transmissions . . . every inch specifically designed to provide fast, economical transportation. New Ford Truck timesaving features GET JOBS DONE FAST . . . at still lower cost per mile!

# NEW "DRIVERIZED" CABS



New one-piece curved windshield, 55% bigger! Wider seat, with new shock absorber. Larger door opening, pushbutton handles. NEW LOW-FRICTION POWER!

Choice of 5 engines . . . V-8 or Six!



T-23

Overhead valve, 101-h.p. Cost Clipper Six, 145- and 155-h.p. Cargo King V-8's-cut down on friction power waste, save gasoline. Also, 106-h.p. Truck V-8 and 112-h.p. Big Six.

## NEW TRANSMISSIONS .... widest choice in truck history!



Synchro-Silent transmission on all models at no extra cost. Steering post shift on 3-speed transmissions. New Fordomatic Drive or Overdrive now available on all ½tonners at extra cost.

### APRIL 1953

# 4 COMPLETELY NEW LINES

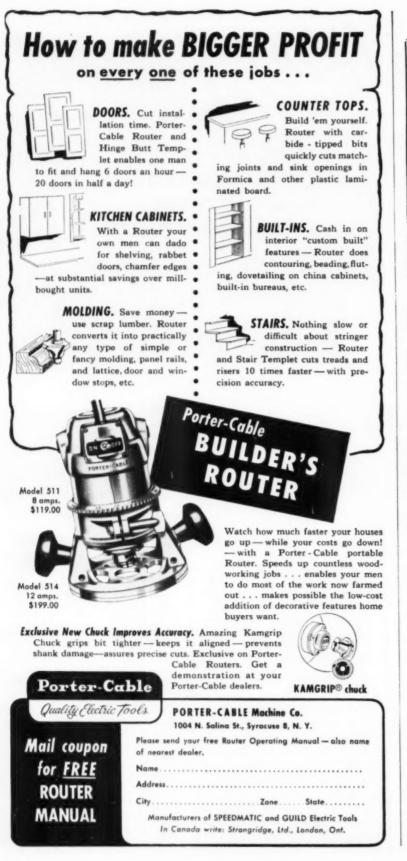
### over 190 completely new models! 9 Conventional F-Series. Up to 27,000 lbs. G. V.W.; 55,000 lbs. G. C.W. Pick-

lbs. G.V.W.; 55,000 lbs. G.Č.W. Pickup, Panel, Express, Stake bodies.
4 Cab Forward C-Series. Up to 23,000 lbs. G.V.W. Up to 48,000 G.C.W.
2 Parcel Delivery P-Series. Bodies up to 12½ ft. Up to 14,000 lbs. G.V.W.
4 School Bus B-Series. For up to 60-pass. bodies. Up to 20,000 lbs. G.V.W.

# FREE! MAIL THIS COUPON NOW!

FORD Division of F P.O. Box 658, Dear	ORD MOTOR COMPANY born, Michigan
	t charge or obligation, com- rd <i>Economy</i> Trucks for '53!
FULL LINE	HEAVY-DUTY MODELS
LIGHT MODELS	BIG JOB MODELS
PARCEL DELIVERY	CAB FORWARD MODELS
Name	
(PLEAS	E PRINT PLAINLY)
Address	
City	State

 state					
Check	bere	if	student		



# SAFE LOADS FOR SLING CHAINS

Diameter	Work Load in	Double	(Two Le	g) Sling		
of Link Stock in Inches	Pounds for Single Leg Vertical Sling	Degree of Angle with Horizontal				
		60 Degrees	45 Degrees	30 Degrees		
	$\begin{array}{c} 1,060\\ 1,655\\ 2,385\\ 3,250\\ 4,240\\ 5,370\\ 6,630\\ 9,540\\ 12,960\\ 12,960\\ 12,960\\ 12,960\\ 12,960\\ 20,040\\ 24,750\\ 29,910\\ 35,600\\ 41,800\\ 48,450\\ 48,450\\ 63,300\\ 63,300\end{array}$	$\begin{array}{c} 1.835\\ 2.865\\ 4.130\\ 5.630\\ 7.345\\ 9.300\\ 11.485\\ 16.525\\ 16.525\\ 22.450\\ 29.350\\ 34.700\\ 42.875\\ 51.800\\ 61.650\\ 72.400\\ 83.925\\ 95.775\\ 109.650\end{array}$	$\begin{array}{c} 1,500\\ 2,340\\ 3,370\\ 4,600\\ 6,000\\ 9,375\\ 13,500\\ 18,325\\ 23,975\\ 28,350\\ 35,000\\ 42,300\\ 60,350\\ 59,100\\ 68,525\\ 78,200\\ 89,525 \end{array}$	1,060 1,655 2,385 3,250 4,240 5,370 6,630 9,540 12,960 16,950 20,040 24,750 29,910 35,600 41,800 41,800 63,300		

Note: If three-leg slings are used, the safe loads given for double (two-leg) slings may be increased 50 per cent and four-leg slings 100 per cent, i. e. the safe load for a new %-inch, three-leg sling at 60 degrees with the horizontal is 6.195 pounds and for a new fourleg sling of the same size and at the same angle is 8.260 pounds.

In ascending or descending ladders, workers should follow these safe practices:

1. Use both hands going up or down. If material must be handled, use a rope.

2. Always face the ladder going up or down.

3. Be sure your shoes are not greasy, muddy, or slippery.

4. Never slide down a ladder.

5. Do not climb higher than the third rung from the top on straight ladders, nor the second tread from the top on stepladders.

Observation of the following safe practices is also important:

1. Do not use makeshift ladders. such as one made of cleats nailed across a single rail.

2. Be sure that a stepladder is fully open before you use it.

3. Before using a ladder, inspect it for defects. Do not use a defective ladder, but tag or mark it so that it will be destroyed.

4. Do not splice short ladders together.

5. Keep ladders clean and free from dirt and paint which might conceal defects.

6. Do not use ladders in a strong wind except in an emergency, and then only when securely tied or lashed in position.

 Do not use ladder in aisles or streets without having an attendant guard it, or roping or barricading off the work area.

8. Do not leave ladders unattended, especially outdoors, unless both top and bottom are securely fastened.

9. Do not use ladders as braces, guys, skids, horizontal scaffold members, or for any purpose other than for which designed.

# AMERICAN BUILDER

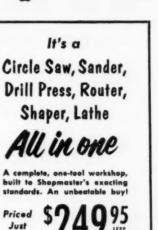
Courtesy National Safety Council



# UNIVERSAL NOTIFICATION POWER TOOL

Here at last, is a woodworking power tool so versatile, so universal in use —it amounts to a complete workshop. The amazing new Shopmaster Universal can not only do a hundred-and-one jobs formerly requiring individual tools—but it can actually perform operations *impossible with* any other tool! Built to Shopmaster's usual standards of precision workmanship, this new Universal is a power tool worthy of the finest professional craftsmen—yet simple and easy for a novice to operate.

The Shopmaster Universal combines dozens of features to assure top performance and long, maintenance-free life. All moving parts glide on sealed-for-life ball bearings. Matched four-step pulleys make available a range of four speeds. A reversing switch makes left hand drill and router bits unnecessary. Tool changes can be made in seconds.



Complete with saw, drill, disc-and-belt sander attachments, and safety type chuck. Saw attachment is furnished with 8" and 10" blade. Other tool accessories available. Complete unit mounts on special table as shown at the right.



APRIL 1953





# MORE POWERFUL! RIPS AND CROSS-CUTS 2 INCH PLANKS

WHIZ-SAW, #2, one of the most versatile cutting tools ever invented, cuts with amazing speed ... wood, formica, micarta, bone, plastic, fibre, asbestos board, pressed wood, hard rubber, etc., up to 2 inch thicknesses. Ideal for all craftsmen. The original WHIZ-SAW Model #1 cuts up to 1 inch thickness.
(\$55.00) WHIRL-SAW, Model #3, 4½ inch circular blade, cuts up to 1¾ inch thickness. (\$49.00)
If not available at your dealer, write to:

THE *Forsberg* MFG. CO., BRIDGEPORT, CONN. Makers of the Famous Whale & Viking Tools

# ... types of saw blades



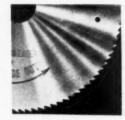
(1)

Types of rotary saw blades for power hand saws are: (1) Planer blade, (2) Crosscut blade, (3) Carbide-tipped blade, (4) Nail cutting blade, (5) Combination rip and crosscut blade,

Black & Decker Photos



(4)



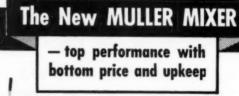
(2)



(3)



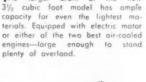
(5)





OTHER FEATURES: Muller Paddle Shaft Seal for positive bearing protection, guaranteed for life of mixer; power throwout; hinged engine housing, self-lubricating, self-aligning bearings; ball thrust on paddle shaft; new sofety grid.

MULLER



THE larger drum of the new



Muller 3½' Tilting Type Concrete Mixer. Prices from \$305.00 up, F.O.B. Factory

METUCHEN 4, N. J., Cable Address, MULMIX

MULLER MACHINERY COMPANY, Inc.

# DE WALT "3 adjustment action" HELPS YOU TO BUILD FASTER AT LESS COST

DE WALT gives you 15 set-ups, 15 different cuts .in less than 15 minutes

You not only cut framing, jack rafters and bridging faster and more efficiently with a De Walt-but you can make 15 different cuts in less than 15 minutes!

DE WALT

AVAILABLE IN FIVE MODELS

FROM TO 10 H.

Where most machines require at least 4 adjustments, De Walt's "3 adjustment action" makes it possible to position the saw for any desired cut in seconds!

This flexibility speeds up cutting, reduces operator fatigue, and enables a De Walt to turn out as much work in ten minutes-as other machines will in fifteen.

De Walt offers you unmatched precision, speed and versatility-you rip, cross-cut, plough, rabbet, tenon, bevel, miter and make many other cuts-a total of 15-in far less time than it takes ordinary saws.

Economize by making your own cabinets, special trim or window frames. Cut costs by as much as \$200 a house! It's easy-and you get perfect results every time.

Find out for yourself how De Walt's "3 adjustment action" saves you time ... saves you money. See your De Walt dealer or mail coupon below.



POWER SAWS DE WALT INC., Lancaster, Pa. Subsidiary of AMERICAN MACHINE & FOUNDRY CO., New York MAIL THIS COUPON TODAY!

Please send me full details on the De Walt Radial Power Saw Line.

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De Walt Inc., Dept. AB-4, Lancaster, Pa.

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CITY

Please send me your informative "Saw Tips".

HAVE YOU TAKEN THE DE WALT TRAINING COURSE? De Walt Inc. invites all its dealers and De Walt Inc. invites all its dealers and distributors to Lancaster, Pa., to take a week's course of instruction in the appli-cation and uses of De Walt Radial Power Server It will be well worth your while. You'll It will be well worth your while, you it learn new techniques of operation that learn new techniques of operation that will enable you to give more convincing Saws. will enable you to give more convincing demonstrations and more help to your customers.

APRIL 1953

Based on current of not over 5 volt This table for 110 extension length of	s. )-volt tool	s. For 220-	volt tools u	use wire siz			
Full-load ampere rating of tool	0-2.00	2.10-3.4	3.5-5.00	5.10-7.0	7.10-12	12.1-16.0	
Length of cord	Wire size (B & S gage)						
25 ft. 50 ft.	18 18	18	18	16	14 14	14	
75 ft. 100 ft.	18 18	18 16	16 14	14 12	12 10 8	10 8	
200 ft. 300 ft.	16 14	14 12	12 10	10 8	8	64	
400 ft. 500 ft. 600 ft.	12 12 10	10 10 8	8	6	4 4 2 2	22	
800 ft. 1000 ft.	10	8	64	4 2	2	1	

# Courtesy Electrical Contracting and National Safety Council

# ... erecting safe scaffolding

Tubular steel scaffolds erected along one wall should be securely anchored to the wall at suitable intervals, approximately once every 20 feet of height, and every 30 feet of width. Free standing towers, such as hoist towers should be guyed at every 30 feet of height as the erecting of the tower progresses.

Tubular scaffolds are frequently mounted on casters for ease in moving about as the work progresses. It is important that the base section be rigidly braced to hold the bottom sections together when casters are used. Casters should be securely locked before the scaffold is used, and a rolling scaffold should not be moved about while men remain on the scaffold.

Scaffold lumber should be inspected carefully before use. Pieces should be reasonably straight grained, free from large knots, splits, dry rot, and wormholes. Planks should not be less than 2 x 10 inches. Lumber selected for scaffolding should be given careful

	ion Ladde	.1.2
Douglas Fir or Ed	quivalent	
Size** of Ladder (feet)	(inches)	(inches)
Up to and including 30.	. 14	21/2
Over 30, up to and inc.		23/4
Over 40, up to and inc.		3
Eastern or Sitka Spruce	or Equiv	alente
Up to and including 28.	14	21/2
Over 28, up to and inc.		234
Over 32, up to and inc.		
Over 36, up to and inc.		314
Over 44, up to and inc.		31/2
Over 50, up to and inc.	60 15%	334
*See ASA Code A14.1- ders," for Group-2 woods. See ASA Code A14.1-1941 **See paragraph 37.		

128

storage, and not used for other purposes.

Scaffolds are not designed for material storage. Material should be delivered as needed, for current requirements only. Hoisting equipment should be located so that there is no possibility of material in movement striking the scaffold.

Electric safety indicator for locomotive cranes to warn the operator when the load is causing the crane to tip at a dangerous angle.

SWITCH

Courtesy National Safety Council

.....

POLE

Contra Lines Sanata Canada

GLASS TUBE

DOIE



surface. The line is all metal—won't crack, chip, or peel—most rust and corrosion resistant—will outwear painted lines many times. Tough maroon-colored vinyl case. 25, 50, 75 and 100+ foot lengths, with or without hook ring.

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AMERICAN BUILDER

# Your invitation to savings

Save Time and Money!

with BOSTITCH BUILDER'S TOOLS

kand tasks

TRY 'EM ! Look for the new Bostitch try-it-yourself display at your dealer's. Test the three handy tools you'll find there – the T5 Tacker, the H4 and H2B Self-feeding Hammers. Heft them to get their "feel." Drive staples with them to discover their speed, their ease of operation. Prove to yourself that Bostitch "fastens it better and faster and at lower cost with wire!"

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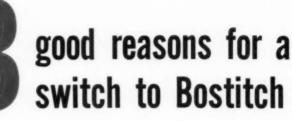
BOSTITCH **824 Mechanic Street** Westerly, Rhode Island











switch to Bostitch

"It's wonderful to have tools that require so little

service, do such a good job, save so much time!"

-ROOFING CONTRACTOR

### **1. BOSTITCH T5 TACKER** Light, compact, easy to op-

erate, the famous T5 Tacker is a favorite with builders. Loads fast. Gets into tight spots. Drives staples all the way into hard woods with powerful action. Three models. Twelve staple sizes. SMALL NOSE permits you to place staples within 1/16" of cleats or inside corners.

MANY USES . . . installing batt, blanket and reflective insulation . . . putting up ceiling tiles . . . fastening screening to frames . . . applying cornerite, sheathing paper, flashing paper . . . putting up mesh for tiling.

TYPICAL REPORT . . . "Stapling is 50% faster than hammer and nails for installing ceiling tile. No danger of marring the edges either." -Lumber Dealer

2. BOSTITCH H2B HAMMER High-speed, self-feeding stapling hammer, the H2B is ideal for tacking and light nailing. Loads easily from front. Holds 160 sturdy staples. One-hand, one-blow operation speeds job by freeing other hand for better balance or positioning the work. Builders like its long reach, its gloves-on operation, its light weight and balance, its rugged reliability. Two models. Three staple sizes.

> **3. BOSTITCH H4 HAMMER** This heavy-duty hammer

drives nail-size staples as

fast as you can strike it. Scientifically

balanced to give extra power to natural

swing. Staple legs spread inside wood for added holding power, will not vibrate loose. Easily loaded with strip

of 50 staples. Staples are made of galva-

nized, heavy-gauge wire.

MANY USES . . . installing batt, blanket and reflective insulation . . . laying roofing paper . . . applying cornerite and metal lath . . . applying wooden undercourse shingles on outside walls (H2B<sup>1</sup>/<sub>2</sub>) . . . applying felt and waterproof paper to outside walls prior to siding.

TYPICAL USER'S REPORT . . . "For installing insulation, Bostitch is not only faster, it does a better job. And it cuts the cost way down." -Builder

MANY USES ... applying asphalt shingles ... applying metal lath to studding ... applying corrugated paper to studding for installation of blown-type rock wool . . stapling of metal discs for built-up tar and gravel roofs . . . laying plywood under-flooring.

TYPICAL USER'S REPORT ... "We've saved nearly one-third of our labor cost on roofing and siding with the Bostitch H4 Hammer. Construction Company

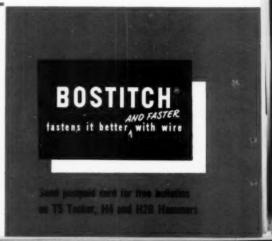
BOSTITCH, 824 Mechanic Street, Westerly, R. I.

Please send me bulletin and prices on:

	Bostitch T5 Tacker
	Bostitch H2B Hammer
	Bostitch H4 Hammer
	Bostitch machines to fasten_

to (NAME MATERIALS)

Name Street City Zone State









Tacker Saves Time Worker using onehand tacker to attach cornerite for reinforcing walls and concrete. Operating as fast as the hand can grip and squeeze, tacker also saves time by leaving other hand free to hold work.



Thread-low maintenance costs. SAVE TIME IN making layouts and in giving lines



APRIL 1953

Harbor plywoods are used wherever consistently high quality and durability are important...

HARBOR PRODUCTS are known throughout the industry as the royalty of Douglas fir plywoods. Dealers and users are agreed that Harbor products deserve their world-wide reputation for durability and extra quality. They are carefully manufactured to exceed accepted standards of construction and performance. They have proved their reputation by the toughest of tests in every type and size of structure-water tanks, sea-going clippers, railroad cars, billboards, concrete forms, and for hundreds of interior uses. For dealers Harbor products mean steady, repeat business. To users, they offer assurance of top performance always.

# SUPER-Harbord SUPER QUALITY WEATHERPROOF DOUGLAS FIR PLYWOOD WITH

FOUR EXCLUSIVE FEATURES All Hoartwood Vencer. The exclusive use of heartwood, exclusive use of heartwood, the prime wood of a tree, in SUPER-HARBORD, assured

a stronger, better panel.

Solid Inner Plys. Selected heartwood stock is used for inner plys as well as face re-neers in SUPER-HARBORD, Carefully patched, it elimi-nates troublesome core gaps.

Edge-Jointed Inner Plys. Solid inner plys are machine edge-trimmed and carefully butted. Every saw cut reveals the solid core construction.

• Humidified. During manu-facture, wood moisture is in-evitably reduced. After SUPER-HARBORD panels are bonded, they are re-hu-midified to minimize dimen-sional change or warping.

# SUPER-Harbord PLYCRETE

A finished SUPER-Harbord form panel for multiple re-use on concrete work demanding a relatively high architectural finish.

Harbord PLYCRETE

A panel especially made for concrete form work on average jobs where limited re-use is required.

-1

Harbord

Interior-type Douglas fir plywood of Commercial Standard quality.

SUPER-Harbord GIANT PANELS

GIANT FANELS SUPER-Harbord standard panels joined with s 1 to 12 ratio scarf joint. Produced in any length with a maxi-mum width of 9', or in any width with a maximum length of 9'.

Harborite

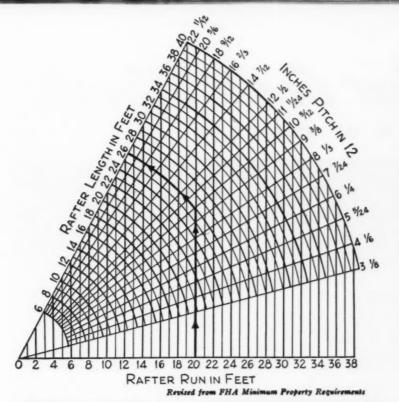
One or both sides plastic faced over SUPER-Harbord core. Makes excellent paint base for exterior finish.

Harbord

GIANT PANELS Giant-size Harborite panela with overlay faces manu-factured by joining stand-ard panels with a scarf joint.

SALES OFFICES AND WAREHOUSES

SALES OFFICES AND WAREHOUSES EXECUTIVE OFFICES, P. O. Box 940, Aberdeen, Washington ABERDEEN, WASHINGTON, Harbord Mercanile, Port Dock ATLANTA, GEORGIA, Harbor Plywood Corporation, 1161 Ridge Avenue, S. W. CHICAGO, ILLINDIS, Marbor Plywood Corporation of Indiana, 511 Baymiller Street INDIANAPOLIS, INDIANA, Harbor Plywood Corporation of Indiana, 1001 E. Hew York Sr. JACKSONVILLE, FLORIDA, Harbor Plywood Corporation, 2355 Dannis Street INDIANAPOLES, CALIF, Harbor Plywood Corporation of Indiana, 1001 E. Hew York Sr. JACKSONVILLE, FLORIDA, Harbor Plywood Corporation of California, 2005 K. Adameda St. OKLAND, CALIFORNA, Harbor Plywood Corporation of California, 3701 King Street PHILADELPHIA, PENNSYLVANIA, Harbor Plywood Corporation for California, 3701 King Street SAN FRANCISCO, CALIF, Harbor Plywood Corporation B02 North Broad Street TAMPA FLORIDA Harbor Plywood Corporation B02 North Rome Avenue



TO FIND the rafter length when its run and pitch are known, follow the vertical line from the run to its intersection with the radial line of the pitch. From the intersection follow the curved line to the length. The diagram also may be used to determine the run when the length and pitch are known, or to determine the pitch when the length and run are known. Example: For a run of 20 iset and a pitch of 10 in 12, the length of the rafter is read directly from the diagram as 25 iset

Ordinary construction lumber is graded on the basis of quality in two main classes—select lumber and common lumber. Select lumber has but very few minor objectionable characteristics, is smoothly finished and can be used as a whole for finishing purposes or where large, clear pieces are required. The selects are divided into two main groups: A and B grades, suitable for natural finishing, and C and D grades, which have blemishes somewhat greater than those in the first class, but blemishes which can be covered with paint.

Common lumber may contain numerous characteristics which do not permit its use for finishing purposes but which still permit its use for general utility and construction purposes. The two principle classifications here are boards and dimension. Boards are graded as No. 1, No. 2, No. 3, No. 4 or No. 5. These grades are not equivalent in all species. Dimension is graded as No. 1, No. 2 or No. 3. The characteristics of these various grades are described briefly in the table on yard lumber.

# Size Standard

Lumber sizes are based on its rough, green dimensions. For example, although described as 4 inch by 4 inch, which is the "nominal" size, a piece which has been dried and dressed on four sides is actually  $3\frac{5}{6}$  inch by  $3\frac{5}{6}$  inch. The first figure quoted in lumber dimensions indicates nominal thickness; the second, width; and the third, if there is one, is the length. Lengths on common lumber normally are in multiples of two feet.

Common boards, or boards, are a general purpose item available at all lumber yards in one or more of the kinds of wood most frequently used in building. The standard nominal widths are 4, 6, 8, 10, 12 inches or wider. Although the grades shown are from No. 1 through No. 5, the very lowest grades of any species are almost never available in retail yards. Their use is mainly for special industrial purposes. Boards are produced with square edge, dressed and matched (tongue-and-groove), or with a shiplap joint. The largest uses for common boards are subfloors, sheathing, roof boards, barn boards, rough siding and concrete forms.

### **Dimension Lumber**

Dimension is primarily framing lumber, used for joists, rafters and studding. Strength, stiffness, and uniformity of size are essential requirements. Dimension is nominally two inches in thickness dressed to 15% inches. Widths are usually nom-(Continued on page 134) LUMBER, FRAMING, MILLWORK, PLYWOOD, AND HARDBOARDS, FRAMING & STAIRS

**Types of Lumber** 

Standards Grades Sizes

**Good Framing Practices** 

Types of House Frames Wood Preservatives Rafters and Joists

**Stairs and Stair Framing** 

# Millwork

Built-ins, Cupboards Mouldings, Columns Shelves, Valances

**Plywoods for:** 

Sheathing, Subflooring, Roof Decking Exterior Use Interior Use Hardwood Plywood Interiors Concrete Forms Farm Uses

Hardboards

Types and Uses Application Techniques Concrete Forms

FOR MORE INFORMATION ON PRODUCTS ADVERTISED AND DESCRIBED IN THIS CHAPTER PLEASE USE ONE OF THE PREPARED INQUIRY POSTCARDS IN THIS ISSUE.

All West Coast Woods

THE CREAM OF THE CROP



Coos Bay Lumber Company, Coquille, Oregon

# DOUGLAS FIR PLYWOOD and DOORS

# 100% HOT PRESSED, interior and exterior types

For uses requiring long durability, for versatility in all types of construction, there's no better product than Douglas Fir Plywood manufactured by the Coos Bay Lumber Company. Here's a quality plywood - a superbly processed product cut from the finest virgin timber available on the Pacific coast. With years of Plywood manufacturing experience behind it, the Coos Bay Lumber Company is prepared to meet your every need for plywood and doors.

# SOON! COOS BAY HARDBOARDS

The ultra-modern Coos Bay Hardboard Plant at Coos Bay, Oregon, will soon be operating, producing hardboards of the finest quality.

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CLEVELAND, OHIO 19115 Detroit Ro (Rocky River)

COLUMBUS, OHIO 483 Neilste LOS ANGELES, CALIF.

812 E. 59th

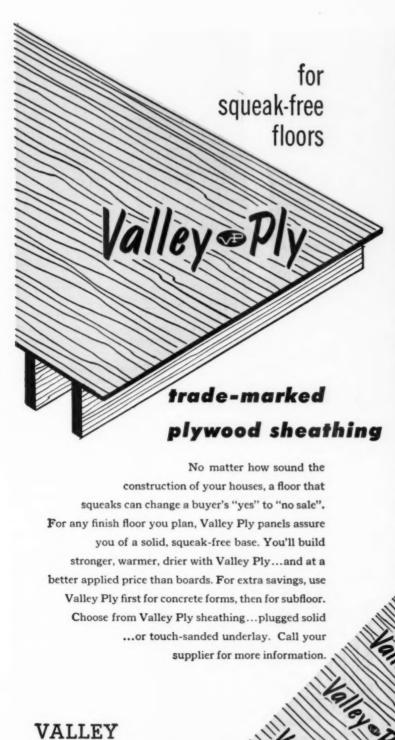
SAN FRANCISCO, CALIF. 214 Front SAN DIEGO, CALIF.

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1208 Royal Bank Bldg. Representatives elsewhere ughout the United States

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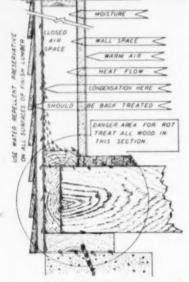


PLYWOOD COMPANY

Box 789, Eugene, Oregon Telephone 5-8491 TWX-EG 147

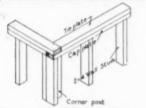
### WHERE TO USE PRESERVATIVE TO COMBAT CONDENSATION

CONDENSATION WITHIN WALL SPACE CAUSES ROT, SWELLING AND PAINT PEELING. CUPRINGL HELPS PROTECT THIS AREA. BACK PAINT WITH CUPRINGL TO REDUCE DAMAGE.

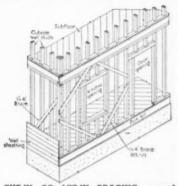


Courtesy, Cuprinol Division, Darworth, Inc.

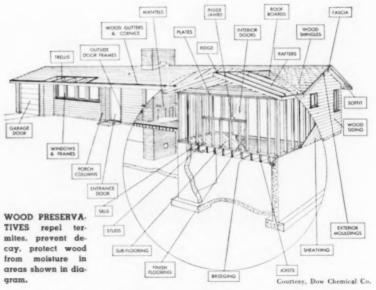
Liquid wood preservatives, applied before painting or varnishing, increase the useful life of floors and beams, joists, and siding, particularly in climates where moisture or termites make special problems, and in modern homes where heating, air conditioning, and laundry devices may increase moisture content of air.



CAP AND TIE PLATES should be used for all exterior walls and the corners lapped and nailed with three 16d nails



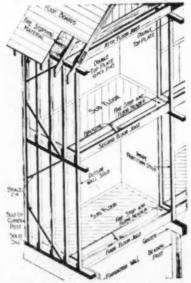
CUT-IN OR LET-IN BRACING around openings or at corners should be as close to a 45-degree angle as possible. Adequate corner bracing or diagonal sheathing are prerequisites of good construction and are stressed by meticulous builders



(Continued from page 131) inal 4, 6, 8, 10 or 12 inches and lengths normally run from 6 to 20 feet in multiples of two feet. Dimension thicker than two inches and longer than 20 feet is made but it is used in comparatively small quantities. Basically dimension lumber is graded to fill the requirements of framing for buildings.

### House Framing Types

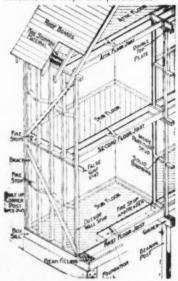
Three types of house framing are most prevalent in modern usage: (1) Modern Braced Frame (2) Balloon Frame, and (3) Platform Frame. All three are modern and accepted framing methods. The platform frame is the most popular and believed to be the fastest and safest form. The plat-



THE MODERN BRACED FRAME is in every way adaptable to modern needs, but must not be slighted in assembly form frame is often referred to as the western framing method, or western frame.

### **Good Framing Practices**

The use of good framing practices cannot be over emphasized. Enough supporting members of proper size must be used, not only to support ordinary loads but to impart sufficient strength to the entire structure. Good framing practices are necessary to give floors and entire structure good stiffness; a most important factor to a well built house. On these pages are shown detail drawings for joists, bridging, subflooring, studs, openings, framing around chimneys, sheathing, roof framing, trussed rafters, fire-stops and partitions.



BALLOON-TYPE OF FRAME for twostory houses is another modern and accepted type of framing structures

# REPORT ON

ea/ We are happy-and regretful. Happy because the acceptance and demand for this decorative fir plywood has ful because we can't seem to catch up with orders. It may seem odd that in a market of plywood plenty, there is, by comparison, so little Sea Swirl available. Yet this is understandable when you realize that only the most select panels qualify for this three dimensional product that captures the romance of soft ocean beaches and of tideprints in the sand. We suggest that you write for a color booklet illustrating the many uses of this wonder wood. While you are studying it, and planning on the use of Sea Swirl for modernization and new construction, we will be increasing production facilities on this pop-

ular plywood.

ASSOCIATED PLYWOOD MILLS, INC. Plywood plants at Eugene and Willamina, Oregon General Offices: Eugene, Oregon Lumber mill at Roseburg, Oregon

RANCH SALES WAREHOUSES:

1268 Utah St., St. Louis, 10.; 4814 Bengal St.; allas, Texas; 4003 Coyle Orego

LES OFFICES:

APRIL 1953





# ARKANSAS SOFT PINE Satin-like Interior Trim

1. Arkansas Soft Pine contains no pitch to bleed through and discolor paint, enamel or stain finish.

2. It is seasoned to correct moisture content (6 to 8 per cent) in automatically controlled dry kilns.

3. This process shrinks the wood before it is machined. Thus "pull" between summer and winter ring growth, which is the cause of raised grain, is completed while the wood is in the rough. Seasoned material is then machined to patterns of stabilized size and satin-like surface.

 Priming coats are evenly absorbed, be-coming integral with the wood's fiber. Final coats thus are applied to uniform surface, immune to bleeding and raised grain, to provide finished woodwork of grain, to provide minished woodwork of lasting beauty. These are dependable qualities in Arkansas Soft Pine which answer your question, "How will this trim look five years from now, or 25?"

Available at your local lumber dealers in A.I.A. approved contours and stand-ard 8000 Series patterns. Complete in-formation, including grades to specify, stress tables, trim patterns, painting and inichine instructions are completed in finishing instructions are contained in this free Handbook for Builders. Write for your copy.

Checking for correct moisture

low will this trim ok in 25 years?" you see it here.

and ridge, it is always wise to lap

members past one another and put nails.

bolts or fastenings in shear. The ridge joint may be further rein-forced by a light strap iron over the

raiter junction, shown

in Section E above

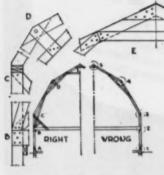
# FRAMING LUMBER, TOO -

in dimension, sheathing, siding, jambs and outside trim. The soft texture and paint-holding qualities of Arkansas Soft Pine insure your workmanship and reputation as a builder of better homes. Look for the trade-mark at your lumber dealers-stamped on all genuine Arkan-sas Soft Pine.

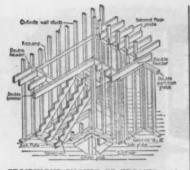


AMERICAN BUILDER

MEMBERS TOGETHER securely is essential in farm structures. Where a loadbearing post supports a girder on which either joists or rafters rest, an angle iron or similar device should be used to tie the



136



STAIRWAYS SHOULD BE FRAMED with not less than three horses and of stock wide enough to leave  $3\frac{1}{2}$  inches of material behind each cut. Landing must be carefully supported and the stair braced against thrust. Accurately cut horses or stringers are important

### Stairway Framing

Stair layout and building is a phase of construction confined largely to millwork manufacturing firms who employ professionals to help builders with these problems.

Never underestimate the value of good framing around stair openings. Doubled and sometimes tripled joists with well-selected, properly fitted and adequately fastened headers are of utmost importance to achieve strength and rigidity. Firmly secure stair horses against header of stair opening. In no case hang them from it.

It is recommended that risers be 634 to 7 inches and treads be  $10\frac{1}{2}$  to  $10\frac{3}{4}$  inches. Slight variations in these dimensions may be made, but in all cases have tread and riser measurements total about  $17\frac{1}{2}$  inches. Between 30 and 36 degrees is the proper, safe, over-all stair flight angle. The

(Continued on page 140)

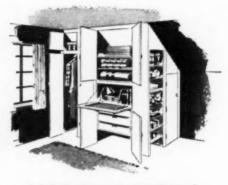


Natl. Fir Plywood A

Built-ins like this carefully designed shelfdoor wardrobe fit many situations. Plywood wardrobe may be installed as single unit, used as storage wall partition, or built back-to-back for two rooms.







# WAYS to put extra with low-cost

# PLANSAVAILABLE

HERE are eight new ideas you can use to build your salesstory right into the house. For even the most modest home can be lifted above the ordinary . . . given *extra* sales-appeal with low-cost fir plywood built-ins.

Fir plywood built-ins far more than pay for themselves. They sell houses faster—and at better prices. See how little you pay\* for fir plywood for each of these built-ins.

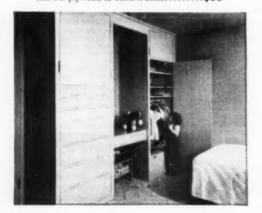
And when you plan with plywood, you make the built-in fit the house—*exactly*! No bothersome juggling of "stock" units. Fir plywood is easy to cut, fit, fasten. Paint it with popular modern accent colors to compliment your interiors ... or use light stains to feature the real wood grain.

Get detailed plans for each of these eight sales-clinching built-ins from your local lumber dealer—or write Douglas Fir Plywood Association, Tacoma 2, Washington. Please order plans by number.





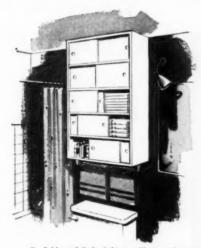
This trademark identifies quality-tested PlyPanel®—the versatile "one-side" grade of Interior fir plywood. Other grades include "two-side" panels for uses where both sides of panel will be seen. For outdoor use, specify Exterior-type fir plywood. EXT-DFFA® on panel edge means 100% waterproof glue.



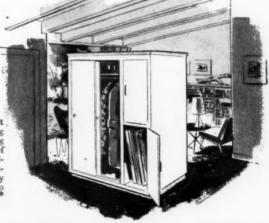


3. Shelf-Door Wardrabe combines features of roomy closet, dresser and chest of drawers. Use it to help sell your house faster. Can be used in any room. Build it with fir plywood for only......\$55\*

# sales-appeal in your homes fir plywood built-ins



6. Island Entry Wall at right defines entry and living areas without confining either. Adds feeling of spaciousness. Saves building costs by replacing conventional wall and entry closet. Fir plywood to build it costs... \$100\*







#### "The Wood Preservative Plus"

Minimizes swelling and

Shrinking of doors and floors **Reduces** Grain Raising and Separation Checks in Plywood

Dries quickly and takes Paint or varnish perfectly

Non-toxic to handle for On-the-job Application

**Stops Rot and Termites** 

**Carried by Lumber Dealers** 

CUPRINOL Division, Darworth Inc. 56 Maple Street • Simsbury, Conn.

#### (Continued from page 137)

recommended height for permanent handrails is 36 inches above the treads Minimum headroom distance between nose of treads and soffit over stairway, in a line parallel with the horses, should be 6 feet, 8 inches for main stairs and 6 feet. 4 inches for basement and service stairs.

#### Millwork

Millwork consists of building items which are fabricated at the factory by the use of some type of machinery. For specific information on millwork relative to doors, windows and stairs refer to directory section titled windows, doors, frames, and stairs.

Millwork may be either assembled at the factory or delivered to the builder knock-down. Included in the many items referred to as millwork are balustrades, scroll work, bent work, casework, cupboards, mantels, mantel shelves, columns, colonnades and a wide variety of mouldings. While some standardization of size exists, designs may be unique with each manufacturer.

Mouldings, however, can be purchased by reference to a standard numbering system, generally adopted by moulding manufacturers, which indicates the size and design of the specific type of moulding. In addition

MAKE YOUR HOMES



Natl. Fiz Flywood Assa

Modern millwork includes a wide variety of built-in cabinets and cupboards like these fir plywood units installed in modern kitchen. Custom-designed vertical molding strips add note of modern charm

to this accepted standard system of identification, certain stock mouldings have become standard within certain sections of the country. For example one might purchase a NY 116 in New York City or a DC 98 moulding in Washington, D. C.

Shown on these pages are some accepted standard stock mouldings from the "8000" series standard.

(Continued on page 148)

**EXTRA** 



#### DATA AND SPECIFICATIONS

FHA Acceptonce

highest qualit ls. Clear woo All po quality

from highest quarty materials. Clear wood panels. Operates easily and sofely with carefully balanced straight coil springs. Finger-tip tauch control will operate this sturdily con-structed stairway. Shipped complete in one package.

Model	Ceiling Height	Rough Opening	Shipping Weight	Overhead Clearance	Stoop Dimension
C-89	70-89	25½ × 60½	70 ibs.	22 inch clearance	4 <sup>°</sup> wide 12% <sup>°</sup> tong 8% <sup>°</sup> rise
C-99	89.99	от 25½ к 54″	68 lbs	required above floor	4″ wide 17∛s°long 9½″rise

ATTIC STORAGE

FEATURE AND INSTALL

SALEABLE"

Wel-Bilt

DISAPPEARING STAIRWAYS

#### make 6-room out of 4-room house

You build extra sales appeal into your homes when you install and feature Wel-Bilt Disappearing Stairways. The space saving Wel-Bilt Stairway can be installed in a few minutes by a builder. Ruggedly constructed for years of trouble-free service for your customers. Ideal for new construction or remodeling jobs. Comes completely assembled with jamb, shipped in one package. Investigate today, the added profit potential with Wel-Rilt





#### because...

The continued prosperity of my business depends upon the satisfaction of my customers, and I can keep that satisfaction only by building well and by using first class materials. Because WOODLIFE protects wood against swelling, shrinking, warping, grain raising, and guards it against decay and termites, it safeguards my customer's investment and strengthens my reputation as a quality builder. Many costly callbacks often needed to repair sticking doors and windows, squeaking floors, etc., are eliminated by WOODLIFE.

WOODLIFE, water repellent preservative, has been nationally advertised since 1935, and because it has user acceptance, more and more builders and architects find that WOODLIFE protected homes sell faster. It gives a "plus" value that marks a good builder —and at little extra cost.

Many lumber dealers supply WOODLIFE treated lumber and millwork items, and stock WOOD-LIFE in quart, gallon, 5 gallon and 55 gallon containers for on-the-job treating.

Write for literature and name of nearest distributor.

Protection Products Mfg. Co. Research Laboratory and Plant KALAMAZOO, MICH.

# Silent Salesman for New Homes

Bilco CELLADOOR

A proven fact! Ask any builder who installs BILCO Doors. He'll tell you it's the best selling feature he ever used. Home buyers sign up fast when basements are

useful, livable and safe.

Don't "date" your homes — investigate America's fastest growing building product . . . the BILCO metal Celladoor.



#### GIVE YOUR CUSTOMERS THESE BILCO BENEFITS

- WEATHER-TIGHT
- TROUBLE-FREE
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	OB HALLOCK AVE., NEW HAVEN, CONN. send me more facts about this selling nes.
NAME	
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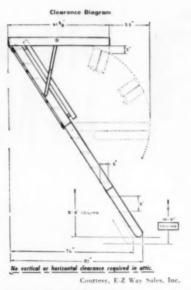


Natl. Fir Plywood Assn.

Fancy scalloped frame around built-in shelwing with ornate valance contrasts effectively with simplicity of plywood wall panels joined with V-joints and vertical scoring.

#### **Disappearing Stairs**

A number of manufacturers fabricate disappearing stair units which are designed for use with attics without taking up the space normally required for a finished stairwell. No vertical or horizontal clearances are required in the attic or loft; all that is needed is to cut a rough opening and install the unit. Some models



One model of modern folding stairway which provides safe access to attic without taking up valuable hall space.

move by counterweights, some are of one-piece construction on the stringer, others have a semi-extensible feature to save more space. Safety treads, an insulated ceilingdoor panel, and rigid construction are features of several models.

DOUG	LAS FIR PLYWOOD
Stock	Thicknesses, Widths and Lengths
	A, INTERIOR A-B, nd PLYBASE Sizes:
Thicknesses:	316, 1/4, 3/8, 1/2, 3/8 and 3/4 inch
Widths:	30, 42, 48 inches
Lengths:	60, 72, 84, 96, 108, 120 and 144 inches
EXTERIOR A	A, EXTERIOR A-B,
PLYSHIELD a	nd UTILITY Sizes:
Thicknesses:	316, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1 and 1 1/8 inches
Widths:	30, 36, 42, and 48 inches
Lengths:	60, 72, 84, 96, 108, 120 and 144 inches
SHEATHING	and PLYSCORD Sizes:
Thicknesses:	316, 3/8, 1/2 and 5/8 inch
Width:	48 inches
Lengths:	96, 108, 120 and 144 inches
PLYFORM S	izes:
Thicknesses:	1/2, 9/16, 5/8, 3/4 & 1/4 inch form liner
Width:	48 inches
Length:	96 inches
CONCRETE	FORM Sizes:
Thicknesses:	5/8 and 3/4 inch
Width:	48 inches
Length:	96 inches

# What's Cooking in the Kitchen?

#### WE HARDBOARD TWINS STIR THINGS UP

Turn us loose in a kitchen . . . that's the recipe for pleased customers.

We back cabinets, partition drawers, fill in corners and serve in dozens of helpful ways that any good builder knows and understands.

STAN is the Weldwood® Standard Hardboard twin... and TEMP, the Weldwood Tempered Hardboard member of the team, treated with oil and plastic so it's permanently weatherresistant.

Both Weldwood Hardboards can be cut, sawed, drilled, bored, planed or worked by any standard or ordinary hand tool. Both, being lighter than average in color, can be painted, even with pastel pigments. Both serve builders in any room in the house. Order today from your Weldwood supplier.

#### WELDWOOD<sup>®</sup> Hardboard

Manufactured by Abitibi Power and Paper Company Distributed Exclusively By UNITED STATES PLYWOOD CORPORATION World's Largest Plywood Organization

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To meet all your requirements: both Standard and Tempered Grades of Weldwood Hardboard come in three popular thicknesses: 1/8", 3/16" and 1/4". In sizes: 4'x6', 4'x8', 4'x10', 4'x12' and 4'x16'. Panels up to 4'x12' are wrapped six to a package. Weldwood Tempered Tile Board is available only in 1/8" thickness and sizes 4'x4', 4'x8', 4'x12'.

Call your Weldwood salesman for Weldwood Hardboard or Tile Board today.

# WHEREVER A TOP IS NEEDED -- THERE'S A USE FOR GENERAL ELECTRIC TEXTOLITE\*

GENERAL Electric Textolite plastics surfacing comes in dozens of exclusive patterns and colors. It is used wherever a durable surface is needed — tables, counters, work surfaces of all kinds — in homes, stores, restaurants.

A variety of gay patterns and solid colors makes General Electric Textolite as pretty as it is practical. Textolite's beauty lasts and lasts. It's scratch and heat resistant, withstands boiling water, scalding greases, even resists burning cigarettes. General Electric Textolite is stain resistant, sheds fruit juices, alcohol, ordinary household chemicals and acids without a trace. It's easy to keep Textolite tops clean. Just a swish with a damp cloth restores the original sparkle and luster.



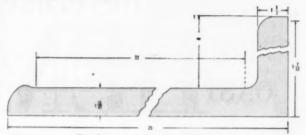
#### MONOTOP... NEW ONE PIECE MOLDED PLASTIC TOP

The G-E Monotop was developed by General Electric in answer to the demand for a simple, one-piece, molded, seamless plastic top that would fit over cabinets without metal trim or separate back splash.

The newest thing in plastic work surfaces, the G-E Monotop is molded all in one piece, with a  $4^{\prime\prime}$  high back splash and a raised, rounded, no-drip front edge. There are no joints or cracks to catch dirt.

Installation is simple and requires little carpentry. The Monotop is self-supporting, being 3/16" thick, and can be installed over an old top or directly on base cabinets. Ask for illustrated installation booklet.

Five decorator colors in the popular cross current pattern are available.



Simple cross-section of a G-E Monotop

#### **G-E TEXTOLITE READY-BONDED TO RODDISCRAFT PLYWOOD**

For your added convenience Roddiscraft warehouses have engaged leading fabricators in each warehouse community to bond G-E Textolite to Roddiscraft Plywood. G-E Textolite professionally bonded to Roddiscraft Plywood can be cut and installed by carpenters with ordinary tools. No gluing or clamping necessary. Ask your Roddiscraft dealer about G-E Textolite Ready-Bonded Tops.

#### AVAILABLE WHEN YOU WANT IT

A nationwide warehouse service makes delivery of G-E Textolite fast and reliable. For complete information — patterns, prices and prompt service get in touch with your nearest Roddiscraft dealer.



Dealers exhibiting this display can show you a wide selection of G-E Textolite colors and patterns.

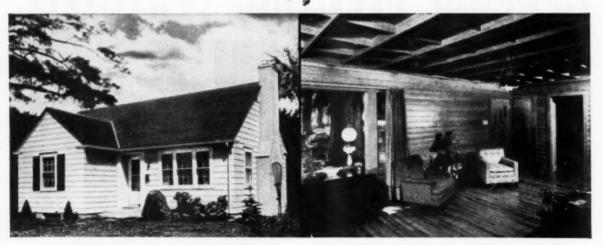
\*Reg. U.S. Pat. Off.



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229 Vassar St. Miami 38, Fla. .....255-315 N.E. 73rd St. 123 E. 27th St. Milwaukee 8, Wis. ....4601 W. State St. 65 W. 41st St. New Hyde Park, L. I., N. Y. 836 Depot St. 1756 Plaza Ave. 1756 Plaza Ave.

So many ways to use ... this abundant ability wood



Bevel and bungalow sidings of West Coast Hemlock excel in all the requirements of a beautiful, durable outside wall covering.

Interior walls paneled with bevel siding of West Coast Hemlock give this room a distinctive and novel atmosphere.

# Weyerhaeuser 4-Square WEST HENIOCK

### **The Ability Wood**

Those who are working with West Coast Hemlock know it is strong, easy to cut and fit, and remarkably free from checking and splintering. In comparison with other species, this ability wood also is distinguished for its fine texture, straight grain and freedom from pitch. These qualities—and other features—make West Coast Hemlock one of our finest, most popular soft woods.

# of HEMLOCK

• Weyerhaeuser takes this abundant ability wood and through scientific logging, accurate sawing, controlled kilnseasoning, precision surfacing, proper grading, careful handling and shipping, produces a wide range of 4-Square West Coast Hemlock lumber products. Fortunately, there are abundant stands of this superb ability wood on the West Coast . . . in a climate which produces superior Hemlock.

Properly kiln-dried, and carefully manufactured by Weyerhaeuser, 4-Square Hemlock has great merit as a dependable soft wood. It is manufactured in bevel siding, bungalow siding, flooring, framing, ceiling, drop siding, sheathing, boards, paneling, moulding and other items. These products are used interchangeably with other multipurpose, softwood species.

Because Hemlock is such a remarkably versatile wood, many builders are using it with great success in many places. Literature describing the characteristics and use value of Weyerhaeuser 4-Square West Coast Hemlock, the abundant ability wood, will be mailed to you on request.

Weyerhaeuser 4-Square LUMBER AND SERVICES WEYERHAEUSER SALES CO., ST. PAUL I, MINN.

BUILD WITH WEST COAST HEMLOCK...THE ABUNDANT ABILITY WOOD 144 AMERICAN BUILDER



# No other stairway offers so much!

EASY TO OPERATE—The cleverly engineered counterweights operate on LIFE-TIME ROLLER BEARINGS and silently raise or lower the stairway with practically no effort.

HYDRAULIC SAFETY-CHECK—Prevents slamming on both opening and closing and assures you that the stairway will shut tight and noiselessly.

**RUGGED & STRONG**—Construction of No. 1 kiln dried lumber throughout. Brackets, rocker arms and hinges cast of special aluminum alloy. Trim furnished on door panel only. All parts are numbered and interchangeable. Frame is made to fit 26" x 54" opening in ceiling.

INSULATED PANEL—Panel is insulated with Cellufoam and protected with tough chip board.

SAFETY TREAD—Each step is covered with full-width composition safety treads. Adds to appearance as well as safety.

FITS ALL CEILINGS—The stairway fits any ceiling from 7 feet to 9 feet 9 inches figured from finished floor to finished ceiling. Runners are graduated to facilitate cutting off at different heights. Two standard sizes: 8'9" fits from 7' to 8'9" ceiling, 9'9" fits from 8'9" to 9'9" ceiling.

EASY TO HANDLE—Shipped in 1 package assembled. Precision Stairways are packed completely in one heavy carton, assembled complete with jamb and ready for installation, which offers a considerable savings over other attic stairways. Shipping weight 130 pounds.

NO ADJUSTMENTS—NO SPRINGS—REQUIRES NO ATTIC SPACE. Full height above attic floor is only 36". Folds completely into 26" x 54" opening in ceiling.

CAN BE INSTALLED IN ONLY 30 MINUTES—1. Bolt brackets to frame. 2. Place stairway in opening, wedge in, square and nail in place. 3. Bolt connecting link to lever arms, place weights in rocker arms and tighten and stairway is ready to operate.

Accepted by F.H.A. Listed in Sweets. Specified by leading architects. Sold by more than 12,000 dealers in U.S.A. and Canada.

Manufactured by PRECISION PARTS CORPORATION 400 North First Street ••• Nashville 7, Tennessee



and now . . .

# MASONITE SIDING

-the newest member of the **Presdwood family!** 

- Makes every home-new or old-more attractive. modern looking. Improves resale value, too.
- · Gives homes the charm and character of lap siding in new, modern widths.
- Available with specially-designed Shadowline wood strips to create a deep, distinctive shadow. Permits smaller overlap.
- Out-weathers the weather! Permanent protection against rain, snow, heat-even hailstones. Won't rot or corrode
- Smoother! Has no knots or grain to rise and disturb the finish. Takes less paint, holds it better and longer. Repainting is extra years away!



• Stronger! Resists dents, bumps and scrapes. Won't split, splinter or crack. Won't push nails out.

• No short lengths. Packaged in full, truecut 8', 10' and 12' lengths.

- Choice of widths: Conventional 12", wider 16" and extra wide 24". In 316" and 14" thicknesses.
- Corners may be of wood or metal. Use sheathing and building paper if necessary. Use same type of finish as you would on wood.

Now! All the beauty and charm of traditional lap siding-plus more durability, faster application and better paint-retention. That's what you can offer your customers with grainless Masonite siding-an allwood hardboard. Tested for years both in the laboratory and in actual use.

Specify Masonite Siding on your next job. It pays off in dollars and in satisfied customers!

### VERTICAL SIDING, TOO

Looking for the unusual? Masonite Tempered Presdwood in the regular 4' width makes an excellent vertical siding material, with batten strips. 8' or 12' lengths will cover most applications in today's new homes.



#### It's New! asonite presdpi -the Presdwood-Plywood Panel that smooths out the tough jobs!

- · For every job requiring a strong, rigid and thick panel with smooth and durable surfaces that are easy to finish. Core made of at least 3 layers of well-seasoned plywood
- and outer plies of tough, super-smooth Masonite Presdwood.
- Interior grade. For all interior uses except in cases of high humidity or hard usage.
- Exterior grade. Completely waterproof adhesives. Presdwood facings are tempered to even greater moisture resistance. Out-weathers the weather.
- Both types in easy-to-handle 4' x 8' panels. In 1/2", %" and 3/4" thicknesses.

Now-Masonite Presdwood and plywood have been "mar-ried" to offer you the best features of both. In Masonite Presdply you have a strong, super-smooth, rigid panel that has scores of uses: In the home for cabinets, built-ins, wardrobes, walls, closet doors, etc. In stores and restaurants for fixtures, counter-tops, displays and shelving. In industry for work-benches, tables, shelves and partitions. Often used as forms for exposed concrete construction where smooth surface is required.

Send coupon for complete information about Presdply



#### ASONITE LEATHERWOOD

- A tempered Presdwood Product with one side richly em-bossed to simulate Spanish-grain leather. Other side ooth.
- Offers many interesting dec-orative possibilities—includ-ing handsome two-tone effects.
- For wainscots, dens, libraries, cabinet panels, etc.
  Popular in homes, restau-
- rants, theaters, offices and wherever a distinctive, luxu-rious setting is desired.
- In 1/8" thickness only. Apply over solid backing.
- 4-ft. panels up to 12 ft. long.



# MASONITE

- A tempered Presdwood Product with smooth, clean score lines to create an attractive tile pattern on one side. Other side is smooth.
- Easy to paint or enamel. Use striping tool in score lines to create interesting contrast.
- Highly resistant to moisture and temperature changes.
   For bathrooms, kitchens, laundries, Also used in hospi-tals, laboratories, stores and
- staurants In 1/n" thickness only. Apply over solid backing.
- 4-ft. panels up to 12 ft. long.

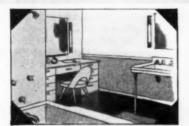
AMERICAN BUILDER



# PRESOWOOD'S Family Album

### featuring

- A type and thickness for every application-33 in all!
- Quality control through constant laboratory testing and careful inspection.
- Nation-wide distribution—available through your local building materials dealer.
- Application instructions in each package.



#### MASONITE TEMPERED

- Our basic Standard Presdwood...tempered for extra hardness, durability and weather resistance
- More than six times as resistant to surface ningies
- Highly resistant to changes in moisture and temperature. · For all exterior applications, including
- For all exterior applications, including farm structures.
  For all applications where extra strength, extra surface hardness and moisture-fighting ability are required.
  One side is extra-smooth; other side has
- screen impression.
- Screen infression.
  Like all Presdwood Products, it can be sawed, drilled, punched, routed, planed, beveled, bent and sanded. Fastens with nails, screws, bolts and various types of adhesives
- Choice of natural, brown or black
- In thicknesses of ½", ½", ½"
  4-ft. panels, up to 12 ft. long. 3%". 1/4" and 5%".



MACONITE

- Similar to ¼" Panelwood, but is planed on screen side to a uniform caliper of .215 inch.
  For use over wood floors or wood subfloors
- Provides a smooth, flat surface for lino-leum, asphalt tile, rubber tile, cork tile or .
- carpeting. · Easy to install. In 4' x 4' or 4' x 3' panels.



- The original member of the Presdwood family
- An all-wood hardboard made of exploded wood chips that are felted into a hard, dense, grainless board equally strong in all surface directions.
- Smooth surface on one side: screen impression on other
- Easy to work and to finish.
- Can be bent to graceful curves.
  In thicknesses of ½", ½", ¼" a
  4-ft. panels, up to 12 ft. long. 1/4" and 5%".



- Similar to Standard Presdwood, but has less density.
- Fine for interior walls and ceilings, soffits, porch and breezeway ceilings. · Attractive smooth surface. Finishes beauti-
- fully Easy to cut and fit.
- Thicknesses of 36" and 14" only. Can be applied over solid backing or studs 16" o.c. • 4-ft. panels up to 12 ft. long.

MASONITE CONCRETE FOR PRESDWOOD



- A specially-tempered Presdwood for maxi-
- mum efficiency in concrete form work. Insures a smooth surface, virtually elim-inating hand rubbing. .
- · Can be used again and again.
- In thicknesses of <sup>3</sup>/<sub>8</sub>" and <sup>1</sup>/<sub>4</sub>".
  4-ft. panels, 8 or 12 ft. long.



Better Hardboards for Better Building

**Both sides** are oh-sosmooth! with MASONITE DUOLUX

EXCLUSIVE 5-FT. WIDTHS! **Both Standard and Tempered Duolux** are offered in the regular 4-ft, width and an extra wide 5-ft, width. Makes possible many more joint-free applications.

- For all applications that call for perfectly smooth surfaces on *bolb* sides of the board.
- Use in homes, stores, offices, factories, institutions, and on the farm,
  Excellent for signs and displays.
- Available in both Standard and Tempered grades.
- Each grade comes in ½", ½", and ¼" thicknesses. · Each grade in lengths up to 16-ft.

One of the most usable members of the entire Presdwood family.

Masonite Duolux is extra smooth .very receptive to paints, enamels and other surface treatments. Finish stays smooth and flatpermanently.

lust a few of the more common applications in homes: Cabinets, flush doors, door panels, partitions, valances, soffits, built-ins, awnings, shutters and room dividers. Dozens of uses in commercial and industrial buildings as well.

bener r	araboaras ra	r Der	ter	DUIIG	ling			
MASO	NITE	CO Dept. A	R F	0 0	RA'	TIC 90 90,	D N	

Please send me complete information and tech data about the Masonite Presdwood family.	nical
Name	
Address	
CityZone	
County State	
"Masonite" signifies that Masonite Corporation is the source of the product	AB-4

#### RECOMMENDED MAXIMUM SPANS

PANEL		D CONTINUO		AS SIMPLE BEAM (OVER 1 SPAN ONLY)				
THICKNESS	20 psf	30 psf	40 psf	20 psf	30 psf	40 ps		
his" rough	23.0	20.0	18.0	18.0	16.0	14.5		
<sup>3</sup> s" rough	27.5	24.0	22.0	22.0	19.0	17.0		
1/2" rough	34.3	30.0	27.0	27.0	24.0	22.0		
5 s" rough	43.0	37.5	34.0	34.0	30.0	27.0		
3/4" sanded	47.0	41.0	37.0	37.0	32.5	29.5		
13 16" rough	53.0	46.5	42.0	42.0	37.0	33.5		

\* Face grain parallel with span. Deflection limited to 1/360th of span. If deflection of 1/270th of a span permissible, spans may be increased by 10%. Note: For roofs with flat decks or pitch not steeper than 3 in 12, and subject

Note:—For roofs with flat decks or pitch not steeper than 3 in 12, and subject to walking traffic, use  $\frac{1}{2}$  inch minimum thickness on 24 inch rafter spacing or  $\frac{3}{8}$  inch plywood on 16 inch centers. Where blocking is used at panel joints, use  $\frac{3}{8}$  inch on 24 inch centers and  $\frac{5}{16}$  inch on 16 inch centers.

	For Douglas Fir Plywood	
PANEL THICKNESS	APPROXIMATE MINIMUM RADIUS ACROSS GRAIN	APPROXIMATE MINIMUM RADIUS PARALLEL TO GRAIN
<sup>1</sup> , Inch	6 <sup>1</sup> <sub>2</sub> Inches	10 Inches
<sup>1</sup> <sub>4</sub> Inch	15 Inches	24 Inches
<sup>3</sup> s Inch	36 Inches	54 Inches
1 <sub>2</sub> Inch	6 Feet	8 Feet
<sup>5</sup> s Inch	8 Feet	10 Feet
3/4 Inch	10 Feet	12 Feet

somewhat longer radius than indicated because of characteristics of the v (such as short grain) in the particular panel.

SOUND INSULAT	SOUND DEADENING								
PARTITION CONSTRUCTION*	Sound Transmission Loss in		FREQUENCY CYCLES						
	Decibels	MATERIAL	128	256	512	1024	2048	Avg.	
1/4" Douglas fir plywood, both sides	31.1	*1/4" Douglas fir plywood	.31					-	
1/2" Gypsum Plaster, metal lath,		on both sides of 2x4 studs		.11	.14	.12	.10	.16	
both sides	33.2	"14" Douglas fir plywood both sides with 34-lb, felt							
1/2" Gypsum Plaster, wood lath, both sides	33.4	and wallpaper over ply- wood	.35	.18	.16	.11	.13	.19	
SINGLE SHEETS**		***Plaster, gypsum or lime, smooth finish on lath	.02		.03		.04	.03	
SINGLE SHEETS		***Plaster, gypsum or							
1/4" Douglas fir plywood	22.4	lime, rough finish wood paneling	.04		.06		.05	.05	
1/2" Fibre board A	22.2	***Linoleum, asphalt, rub- ber or cork tile on con-			.03 to			1	
1/2" Fibre board B	21.0	crete floor			.03 10				

Ultimate	+ Loads at	Standard P	lywood E	dge-Distanc	es for Late	erally Load	ed Nail Jo	ints.
				NAIL	SIZE			
PLYWOOD	6d (	COM.	8d COM.		10d COM.		16d COM.	
THICK- NESSES	Load	Plywood Edge- Distance	Load	Plywood Edge- Distance	Load	Plywood Edge- Distance	Lood	Plywood Edge- Distance
A 16.	335#	1.2*	420#	4."				
<sup>3</sup> .s"	345#	1 2	470#	3 "*				1
1.2"	r		470#	^ x"	500#	1.2"		
5."			470#	5 .*	575#	5,*	620#	3 ""
31"					575#	34"	675#	34"

#### (Continued from page 142)

Plywood is an engineered panel material made up of three or more layers of veneers bonded together with glue, with the grain direction of each ply at right angles to that in the adjacent ply. An odd number of plies is nearly always used to obtain balanced construction. While plywood panels are produced in a wide range of both soft and hardwoods, over 90 per cent of all plywood used in light construction is supplied by the Douglas fir plywood industry.

#### SHEATHING, SUBFLOOR-ING, ROOF DECKING

Plyscord is the recommended grade of plywood for sheathing, subflooring and roof decking. Certain veneer defects not affecting its serviceability may appear on both surfaces. It has moisture-resistant bonding

Plyscord  $\frac{1}{16}$ -inch thick is recommended for use as roof sheathing over rafters 16 inches on center under both wood and asphalt shingles. Wood shingles, however, must be applied with nailing strips unless  $\frac{1}{2}$ -inch plywood is used. The rafters may be spaced 24 inches on center when  $\frac{1}{2}$ inch plywood is used.

The minimum thicknesses of Plyscord when used for wall sheathing are  $\frac{4}{36}$ -inch for 16-inch stud spacing and  $\frac{4}{36}$ -inch for 24-inch stud spacing. Corner braces in house framing may be eliminated when 4 by 8-foot sheets of plywood are nailed with 6d nails, 6 inches on center on all edges and 12 inches on center at intermediate bearings. When  $\frac{4}{36}$ -inch plywood is applied as wall sheathing, wood shingles may be fastened directly with ring-barbed nails. If barbed nails are not used, nailing strips must be employed.

One-half inch plywood is permitted as a base for wood finish and all composition types of flooring when the following application methods are followed: (a) joist spacing not more than 16 inches on center; (b) blocking installed under all panel edges at right angles to joists and (c) nailed securely 6 inches on center at all edges and 10 inches on center at intermediate framing members. Further, joist spacing may be increased to 20 inches if 5%-inch plywood is used and to 24 inches if 3/1-inch plywood is used when requirements (b) and (c) above are followed. Lay panels with outer grain across the joists.

In all cases correct nailing techniques must be followed for fastening the plywood and other components of

(Continued on page 151)

AMERICAN BUILDER

Coming in with a **ROAR** to make your sales **SOAR!** ...the new

Weldwood<sup>®</sup> Panel

#### Priced For Business ... And Profits!

Surfwood is priced for any building budget! Its picturesque, natural appearance...its ease of installation...freedom from maintenance...appeals to both the builder doing luxury installations and the man who wants something special but <u>must</u> have low cost materials.

Its rustic air of informality will create a big demand for use in such diversified places as ranch and summer homes, offices, country clubs, rumpus rooms, cocktail lounges.

Ride in on SURFWOOD to greater sales and profits! Get in touch with your nearest Weldwood distributing unit today! This handsome, new paneling duplicates all the weathered surface details, color and charm of wood aged by long exposure to the sea. This effect even includes open and sound knot-holes... which add greatly to the natural appearance of Surfwood.

Here is a panel that will weather the sea of time ... will always *stay* beautiful ... always remain a big hit with your customers.

Surfwood is Weldwood Fir Plywood, bonded with the amazing new L-1R adhesive which not only resists moisture but also withstands mold.

Surfwood is made in  $48'' \ge 96''$  size, 5/16'' thick.



UNITED STATES PLYWOOD CORPORATION World's Largest Plywood Organization Branches in Principal Cities • Warehouses in Chief Trading Areas • Dealers Everywhere

# customers can choose from 3 Ez-Way units

#### Ez-Way's 3-unit line means easy sales...

Three outstanding stairway units in the EZ-Way 1953 line completely cover your market when you're selling customers the way to "more room for living". There's no excuse for waste attic space on any purchasing level with EZ-Way's 3-way selection!



EZ-WAY Folding Attic Stairway

E Officiency Alexe Streneway Ideal for remodeling on new construction, the EZ-Way Folding Stairway converts waste attic or loft space to living or storage quarters at the lowest possible conversion cost, Shipped completely assembled. Touch controlled, balanced spring action & No counterweights & Sturdity built & Safti-Walk steps & Decorative styling

SPECIFICATIONS Model 18 Model 22

Model 18 Model 22 (heavy duty)

#### 

#### EZ-WAY Economy Ladder

Costing only slightly more than a large step ladder, the EZ-Way Economy Ladder can be installed with no alteration to the attic scuttle hole. Rigidity and sure-footing are designed into the Economy Stairway. Easily operated by a woman or child.

#### SPECIFICATIONS

Model 15 Any opening 16" x 24" or larger---(a) Maximum floor to floor height 9'2" (b) Minimum vertical clearance in attic 4'7" (c) Clearance on attic floor 4'1½" If the floor to floor height is less than 9'2" the vertical clearance (see b) required in attic will be reduced.

#### EZ-WAY Sliding Stairway

Developed especially for the mass housing market, this inexpensive stafiway serves two neads—when not in use as a stafiway, it is easily demounted for use as a utility ladder around the home and farm. Simplest, most effective stafiway available in this price range!

#### SPECIFICATIONS

14

Sell the profitable idea of "More Room For Living" with EZ-Way stairway units.



#### allowable spans for douglas fir floor joists

DRESSED LUMBER, Includes S48 and S2E

Nominal size (inches)	Spacing c. to c.	1900-f Select Structural Framing etc.	No. 1 Framing, Joists, Plank	No. 2 Framing, Joists, Plank	No. 3 Framing, Joists, Plank
3 1 6	In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.
	12	11 3	11 3	11 3	7 7
	16	10 2	10 2	10 2	6 7
	20	9 6	9 6	9 2	5 10
	24	8 11	8 11	8 4	5 4
2 2 8	12	15 0	15 0	15 0	11 8
	16	13 8	13 8	13 8	10 1
	20	12 8	12 8	12 2	9 0
	24	11 11	11 11	11 2	8 3
3 x 8	12	17 8	17 8	17 8	14 10
	16	16 0	16 0	16 0	12 10
	20	14 11	14 11	14 11	11 6
	24	14 0	14 0	14 0	10 6
2 x 10	12 16 20 24	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	19 0 17 3 16 1 15 1	19 0 17 3 15 5 14 1	15 11 13 9 12 4 11 3
3 x 10	12 16 20 24	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	22 4 20 3 18 10 17 9	22 4 20 3 18 10 17 9	20 1 17 6 15 8 14 4
2 1 12	12	23 0	23 0	23 0	18 7
	16	20 10	20 10	20 10	16 1
	20	19 3	19 5	18 8	14 8
	24	18 3	18 3	17 1	13 2

#### Save Time and Money . . . Avoid Mistakes . . . Use

### SIMPLIFIED CARPENTRY ESTIMATING

HERE IS EVERYTHING YOU NEED to know to "take off" a bill of materials from set of plans and specifications for a frame house. Saves you time figuring jobs, protects you against oversights or mistakes that waste materials and cost money. Nothing complicated—just use simple arithmetic to do house carpentry estimating with this easy-to-use ready reference handbook. CONTENTS: Estimating Fundamentals. Foundation

**CONTENTS:** Estimating Fundamentals. Foundation Material. Framing. Exterior Finish. Hardware. Build ing Information. Estimating Short Cuts. Labor Hours per Unit of Work. Carpentry Mensuration. Mathematical Reference Tables. Stair Estimating. How to Plan a House.

#### 1950. 5th Ed. 304 p. 123 illus. 60 tables. 5x8. \$3.75



#### (Continued from page 148)

floors, walls, and roofs. For nailing in-, 3%- and 1/2-inch Plyscord, 6d common nails should be used. The 54-inch Plyscord should be fastened with 8d common nails. Nails should be spaced not more than six inches apart at the edges of panels and not more than 12 inches apart on other bearings when plywood is used for sheathing or subflooring.

#### FOR EXTERIORS

For exterior use, only the exterior grades of plywoods, with waterproof adhesive bonding, should be applied. Plyshield is specifically produced for use as siding; one face is sound veneer and ready for any type of finishing

The minimum thickness of plywood recommended for siding is 3/8-inch. although, for economy in some types of construction, 1/4-inch panels are used successfully. For construction of single-wall structures, such as warehouses. 1/2-inch or thicker Plyshield siding has been used with success and economy.

Exterior plywood siding should be applied with non-corrosive nails. The common, hot-dipped galvanized type is satisfactory. Nailing should be with 6d common or with 6d box nails for 34-inch siding and 8d for thicker siding When full-size 4 by 8-foot or longer panels are used, fastenings should be spaced not more than 6 inches on center at panel edges and 12 inches elsewhere. When narrow 12to 24-inch panels are installed as lapsiding, nailing at panel ends should be not more than 4 inches on centers.

All edges of plywood siding, no matter whether butted, veed, covered, or exposed, should be bedded in a thick lead and oil paste or other suitable compound. This is knifed on as the panels are applied. Filler or bedding specifications are: 100 pounds of paste white lead, one and threequarters gallons of raw linseed oil and one pint of dryer. Reduce dryer to one-half pint if boiled linseed oil is used.

If plywood is installed as lapped siding, the lap should be at least two inches and bedded in paste. The verti-



EXTERIOR WALL section running across the joists. First joist is set 5/16-inch outside of stud line to provide for 5/16-inch plywood panel. This simplifies use of standard 4 by 8-foot sheathing panels applied either vertically or horizontally

cal joint should be backed with narrow strips of wood shingles tacked to the studs. The vertical butt joints may also be flashed by a strip of asphalt-impregnated building paper tacked over the shingle and lapped just over the course below. Horizontal edges of plywood used as lapped siding should be beyeled slightly so water will drip from the outside edge.

#### FOR INTERIORS

Plypanel is the grade of fir plywood designed for finishing walls, ceilings, partitions, storage walls, cabinets and built-in furniture where only one surface is to be exposed.

Thicknesses most popular for wall paneling are the 3%-inch and 1/4-inch panels, while the 1/2-, 5/8- and 3/4-inch thicknesses have widespread use in cabinets, built-ins and doors,

For good wall construction, Plypanels 3%-inch thick are recommended, over studs 16 inches on center. Apply panels either vertically or horizontally; the latter affords extra rigidity.

Some building codes require a 2- by 4-inch fire stop about four feet from the floor, between studs. This horizontal member serves as backing for plywood panels and is recommended.

Plywood panels 3%-inch-thick are fastened with 6d finish or casing nails spaced 6 inches on center and 1/4-inch panels are applied with 4d finish nails.

A basic principle in applying plywood paneling is to start at openings with vertical joints and divide plain wall spaces in any preferred, orderly

(Continued on page 152)

TYPICAL DOUGLAS FIR PLYWOOD THICKNESSES FOR FARM SERVICE BUILDINGS

	Flo Plywood Thickness	Joist	Walls Plywood S Thickness Sp	itud	Roof Plywood Thickness S	Rafter	Notes
Grain Bins* Round	3/8"	12"	1/4". \$ / 16" 3/8"		⅔″	24"	12' Height
Rectangular	3/8"	12"	1/4" 3/8"	12"	3⁄8″	24"	8" Height
Corn Cribs*	3/8"	12"	3/1 "	16"	3/8"	24"	12' Height
Silos*	A		1/4" 3/8"		1/4". 3/8"	. 24"	Glued construction. Double skin bottom half. 14' diameter, 32' high.
Lining			1/4"		1/4"		
Horse Barn	-		1/2" 3/4"	16"	3/8"	24"	Inside wall lining.
Stall Partitions	-		3/4	24"		*****	
Horse Trailers	-		3%"	24"			Glued construction.
Calf Barn Partitions			3/8" 3/8"	16" 24"	1	24"	
Loafing Barn			3/8"	16"		24"	
Milking Barn	******		3/8"	16"	3/8"	24"	
Milk House			3/8"	16"		24"	
Hog Farrowing House	11.00		3/8"	16"		24"	
Portable House	1/2"	16"	3/8"	16"		16"	Construction
Wallowing Trough Feeder	5/8" 3/8"	24"	1/2" 3/8"	24"		24"	Glued construction
Pig and Lamb Brooders	1/4"	24"		24"	1/4"	16"	
	3%"	16"	1.04	24"		24"	
Poultry House Portable Brooders	3%"	16"	1/4"	24"		24"	
Watering Tank and Trough	1/2"	24"	1/2"	24"			Glued construction
Tobacco Curing Barn			3/8"	16"		16"	
Fruit and Vegetable Storag			3/8"	16"		24"	
Fumigation Chamber	3/8"	16"	1/4"	16"	1/4"	16"	
Refrigerators and Freezers	3/6"	16"		16"	1/4"	16"	
Machine Sheds	/0		3/8"	24"		24"	1
Septic Tank Forms			3/.11	24"	/•		
Chutes and Air Ducts			11."				
	******	******			******		1
Doors	*****		1/2". %8"	_			

\*Design of these structures depends on capacity and dimensions. Check with existing plans, especially for adequate nailing and bracing.

NAILING—For most buildings listed above, general plywood nailing recommendations are as follows: Use 6d common nails for kanels less than  $y_2^{-1}$ , 8d common otherwise. Space nails  $\beta_0^{-1}$  in from edge and 6<sup>-</sup> on centers at panel edges, 12<sup>-</sup> on inner bearings.

arrangement. Often moldings are applied to obtain horizontal stream-lined effects or a variety of paneled designs. V-grooves, easily made with portable electric routers, can be effectively employed to simulate narrower paneling or to make designs on the panel face. Lapping of panels is particularly effective in ceilings.

#### PLYWOOD ON THE FARM

Because plywood used in farm service structures is constantly or repeatedly exposed to weather, to wetting during cleaning, or to high humidities (as in dairy barns), only the exterior grades with waterproof adhesive bond should be used.

#### HARDWOOD PLYWOOD

The application measure set down for fir plywood can generally be followed for hardwood plywoods used on interiors with a few additional cautions. To achieve the best results, furring strips of ½-inch plywood, cut two inches wide with the grain running the short way, should be nailed to the studding and blocking. By use of the furring strips, individual panels are practically united into a single unit of wall which swelling or shrinking of the building will not affect.

#### CONCRETE FORMS

Two standard grades of fir plywood are especially produced for concrete form use: (1) Plyform, for multiple re-use, made with highly water-resistant but not waterproof adhesives; (2) exterior-type fir plywood, grademarked EXT-DFPA-Concrete Form, with a completely waterproof bond between the plies. Plastic-surfaced plywood is available for constructions requiring the best possible appearance of the concrete surface.

The thickness of plywood to use in concrete forms depends on the loads, permissible deflection, and spacing of studs, joints or stiffeners. The 5%-inch and 34-inch are the most popular thicknesses. It is axiomatic that the supporting framework, studs, wales, posts and joists must be constructed for deflection, bending strength and shear in studs and joints and for column action in posts. Plywood requires proper support from studs or joists. The height and rate of pour as well as fluidity affect pressures against the forms and spacing of supports. Values are calculated on panels placed with face grain across the studs:

Thick- ness	Thick- Stud ness Spacing					Max	imum I		
5/8 **	12"	1/2	70	of	Span	880	Ibs. sq.	ft.	
3/4 "	12"	1/2	70	of	Span	1,330	Ibs. sq.	ft.	
3/4 **	16"	1/2	70	of	Span	560	Ibs. sq.	ft.	
5/8 "	12"	1/3	60	of	Span	660	Ibs. sq.	ft.	
3/4 "	12"	1/3	60	of	Span	1,000	lbs. sq.	ft.	
3/4 "	16"	1/3	60	of	Span	420	lbs. sq.	ft.	

#### HARDBOARDS Types and Uses

Hardboards are panels processed from ligno-cellulose fibers which are the result of exploding wood chips under high-pressure steam. The fibers are then compressed into the desired panel thickness and density in thermal hydraulic presses. A quick reference chart shown on these pages gives the physical properties and panel sizes available for the seven basic types of structural and surface-finishing hardboards.

Hardboard is known as "the wonder wood of 1,000 uses." It is extensively used as a material for modernizing commercial interiors and exteriors, for cabinets and other built-in features in houses, and for bevel siding in home building. It is flexible and can be applied in curved designs. The surface is hard and resistant to dents and wear, and is an excellent base for any kind of finish.

#### Preliminary Conditioning

All hardboards should be preexpanded before application. When using tempered hardboard for interior use the panels should be pre-expanded by applying cold water to the reverse (screen) side, at the same time scrubbing with a broom or brush. No water should be left standing on the smooth surface or boards will not retain their original color. After the surface has turned a dark brown color, stack screen side to screen side and allow the board to stand for 12 to 16 hours. Then apply in this damp condition.

When using tempered hardboard for exterior finish, follow the same pre-expansion process as above, but let the board stand for 24 hours before applying.

Hardboards with tile face or leather finish have a lower rate of water absorption. To pre-expand such hardboards, it is necessary to stack, screen

MINIMUM BENDING RADII OF HARDBOARDS

		Heated Equipment Bending Forms Heated to 300°-450°F		Cold Moist Bends		Cold Dry Bends	
		Smooth Side Out	Smooth Side In	Smooth Side Out	Smooth Side In	Smooth Side Out	Smooth Side In
Standard Hardboard	1/8"	21/2"	2"	8"	4"	12"	10"
	3/16"	31/2"	21/2"	12"	6"	18″	12"
	1/4"	5"	4"	18"	14"	26"	22"
	5/16"	6"	5"	28"	16″	40"	28"
Tempered Hardboard	1/8"	21/2"	2"	4"	31/2"	9″	6"
	3/16"	3"	21/2"	8"	51/2"	13"	10"
	1/4"	4"	3″	16"	10"	24"	18"
	5/16"	6"	5″	24"	14"	36″	24"
Leather-textured Hardboard 1/8"		3"		10"		14"	

TABLE showing minimum bending radii for hardboards by thickness and type

		BOARDS—THICKNESSES, SIZES, WEIGHTS Dimensions in Feet	
Inch Thick		Lbs. per Sq. Ft.	
Standard			
1/0	4x12	4x10 4x9 4x8 4x7 4x6 4x5 4x4 4x3	0.76
316	4x12	4x10 4x9 4x8 4x7 4x6 4x5 4x4* 4x3*	1.01
1/4	4x12	4x10* 4x9 4x8* 4x6* 4x4* 4x3*	1.36
510	4x12	4x10* 4x9 4x8* 4x6* 4x4* 4x3*	1.72
Panelwood			
316	4x12	4x10 4x8 4x4 4x3	0.90
Tempered			
1/0	4x12	4x10 4x9 4x8 4x7 4x6 4x5 4x4 4x3	0.79
316	4x12	4x10 4x9 4x8 4x7 4x6 4x5 4x4* 4x3*	1.10
1/4	4x12	4x10* 4x9* 4x8* 4x6* 4x4* 4x3*	1.42
516	4x12	4x10* 4x9* 4x8* 4x6* 4x4* 4x3*	1.76
Black Tempered			
1/0	4x12	4x10* 4x8* 4x6* 4x4* 4x3*	0.79
316	4x12	4x10* 4x8* 4x6* 4x4* 4x3*	1.10
1/4	4x12	4x10* 4x8* 4x6* 4x4* 4x3*	1.42
916	4x12	4x10* 4x8* 4x6* 4x4* 4x3*	1.76
Concrete Form			
316	4x12	4x10* 4x8*	1.13
1/4	4x12	4x10* 4x8*	1.46
Tile Finish			
1/8	4x12	4x10* 4x8 4x6* 4x5* 4x4 4x3	0.84
Leather Finish			
1/8	4x12	4x10* 4x9* 4x8 4x7* 4x6 4x4* 4x3*	0.84
		ailable only when on inventory	

AMERICAN BUILDER

# FOR FINEST Architectu Quality Redwood

#### with HIGHEST GLUE-HOLDING ABILITY

#### SPECIFY PALCO CERTIFIED DRY REDWOOD

No other wood surpasses Redwood in gluing properties, and few begin to equal it. Along with this natural advantage, PALCO *Architectural Quality* Redwood offers highest uniformity of texture, grain and seasoning—with greatest dimensional stability and minimum shrinkage. For highest ability to take and hold different types of glue under different methods of application without special treatment, insist on PALCO *Certified Dry* Redwood—It's the best by every comparison, and yet costs no more.

For a comparative analysis of Redwood's outstanding qualities, write for Redwood Data Book "JG," today. PALCO Redwood is tops in ALL these qualities

High Dimensional Stability

**Finest Paint Retention** 

**Greatest Durability** 

Good Workability

Glue-holding Ability



#### THE PACIFIC LUMBER COMPANY

The best in Redwood — Since 1869 Mills at Scotia, California 100 Bush St., San Francisco 4 • 35 East Wacker Drive, Chicago 1 • 5225 Wilshire Blvd., Los Angeles 36 MEMBER OF CALIFORNIA REDWOOD ASSOCIATION

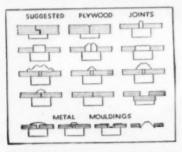
APRIL 1953

Low Swelling and Shrinkage

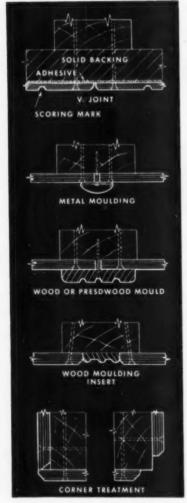
side to screen side, with wet cloths or newspapers between the panels and allow to stand for 12 to 16 hours. Cover stacks to reduce evaporation.

#### Working with Hardboards

Use typical woodworking procedures and ordinary carpenter's tools when building with hardboards. Pan-



SUGGESTED joint treatments for interior plywood walls. Wood or metal mouldings may be utilized



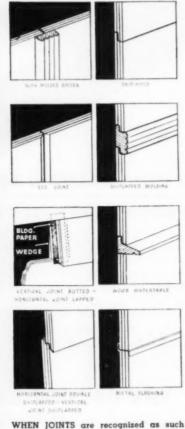
SUGGESTED joint treatments for hardboard interior paneling. A slight space between panels is recommended

els can be sawed, planed, routed, drilled, punched, shaped or bent into simple curves. Just observe these three "don'ts": Don't toenail; don't drive nails in the edges; don't nail moulding, etc., onto hardboards without any backing, for the hardboard will not hold the shank firmly.

The cross-cut saw with 8 to 12 points per inch and a No. 6 set should be used for straight cutting. Pressure should be little more than the weight of the saw. Power saws save time and may be used. Use a coping or compass saw for cutting irregular, curved and inside edges. Turn the intended exposed surface up when cutting. This procedure will leave a sharper corner on the face edge in addition to helping protect the face side of the panel.

Holes should be drilled if screws are to be used as fastenings. Counterbore holes if the screw head is to be flush or below the surface. For circular holes, a twist drill will work more satisfactorily than an auger bit.

For concealed nail heads, use finishing or casing nails and set with a nail set. Then fill with putty or



WHEN JOINTS are recognized as such and made a part of the architectural design they are usually easier to treat. Above are shown eight popular treatments for plywood siding joints plastic wood, over the head, after the prime coat of paint has been applied.

#### Making Bends

Hardboards can be bent into simple curves by the cold dry, cold moist, or the hot method. The method used depends upon the radius of the curve desired. (See bending radii chart).

#### Installing Hardboards

Hardboards may be applied over solid backing such as wood, gypsum lath, gypsum wallboard and plaster, or directly to studs or furring strips not more than 16 inches on center. Solid, continuous support must be maintained behind both horizontal and vertical joints. When applying directly over studs, hardboards should be at least <sup>3</sup>/16-inch thick.

When hardboards are to be attached to solid surfaces the panels should first be cut to fit loosely in position on the area to be covered. Never fit panels tightly abutting each other. Then, by using a saw tooth trowel with notches of approximately Bia-inch depth, spread waterproof adhesive over the entire back of the panel. Spread on all edges. Be careful not to get it on the surface which is to be exposed.

Place panel in position immediately after adhesive is applied. Press and tap it to get a firm contact over the entire area. It is then desirable to place braces or supports against the panel to hold it in place. (See diagram). Time required to set is usually overnight. Nails may be used in place of shoring if base surface permits firm anchorage.

#### Concrete Form Hardboards

Specially tempered hardboards are for concrete form use and should be pre-expanded before being applied to the framework of a concrete form. Scrub water into the screen side and then stack screen side to screen side, covered, and let stand for 24 hours.

Panels are then applied to the form construction in the moist condition with the smooth side against the concrete and nailed securely. Screen side of panel may be used against the concrete if rubbing is required to produce a uniform surface color on concrete.

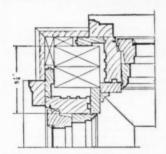
Necessary bevels can be formed of smooth, straight-grained wood and nailed through the fiber board and into the backing. Before first use or re-use the panel surface which bears against the concrete should be wiped with waste saturated with grease having a calcium soap or aluminum stearate base, or with waste dipped in parafin base oil having a viscosity of not less than 250 seconds at 100 degrees Fahrenheit (Saybolt) and free from volatile constituents.

AMERICAN BUILDER

#### structural details - wood casements

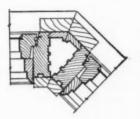
Installation of standard wood casement unit in frame wall. This unit has reversi-

#### CORNER WINDOW DETAIL-1/4 scale



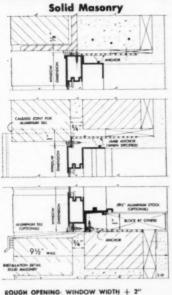
Angle iron or steel column can be used in place of 2x4's. Sash may be either swinging or stationary.

#### ANGLE BAY DETAIL-Ve scale



Section through angle mullion made from standard units. Specify long sill horn for mitering.

#### structural details - aluminum horizontal

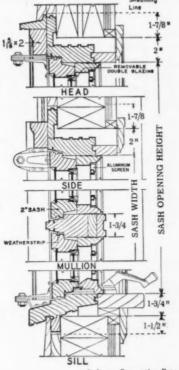


ROUGH OPENING: WINDOW WIDTH + 2" WINDOW HEIGHT + 16"

Horizontal sliding windows of aluminum require no painting, are easy to install and maintain

APRIL 1953

ble windbreaks for either 34'' or 1/2''sheathing. Plaster reveal inside finish can be used in place of extension jambs and casing trim



Andersen Corporation Data

Concrete Block

ROUGH OPENING: WINDOW WIDTH + O" WINDOW HEIGHT + 16" Peterson Window Corporation Data

155

### WINDOWS, DOORS, AND FRAMES

#### Windows

Casements Metal Wood Horizontal Sliding Double-hung Metal Wood Awning Types Walls of Glass Double glass Glass block Pivoted and Projected Storm Sash and Combinations Basement and Utility Special Types

Doors

Wood Metal Glass Combination Cabinet and Cupboard Special Types

Frames

Basic Principles Door Frames Window Frames Wood Metal

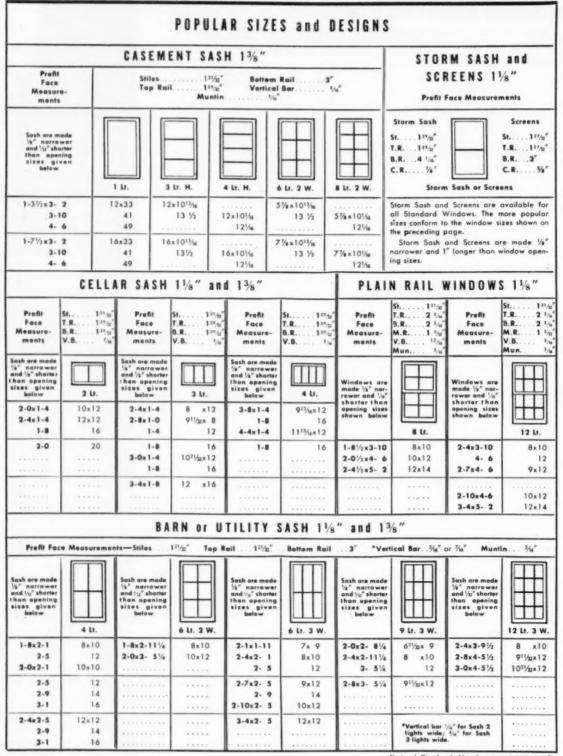
Screening

Venetian Blinds

Installation Details

FOR MORE INFORMATION ON PRODUCTS ADVERTISED AND DESCRIBED IN THIS CHAPTER PLEASE USE ONE OF THE PREPARED INQUIRY POSTCARDS IN THIS ISSUE.

## OPENING SIZES-PREFIT LAYOUTS and GLASS SIZES



#### Wood Casements

The out-swinging type of wood casement is most popular with builders and home owners because apparently it can be more easily made weather-tight. Some types have storm sash which open with the window proper, and others have extra deep rabbets to accommodate the readymade double pane units in common use. As with metal casements, sash are often hinged with offset butts to National Woodwork Manufacturers Association Data allow cleaning of both sides from the inside. Screen and storm sash, when available with the unit, are hung on the inside and do not interfere with its operation.

(Continued on page 160)

AMERICAN BUILDER

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# Gate City Wood Awning Windows

#### FACTUAL PRE-ORDERING INFORMATION

Complete schedule of sizes (with corresponding stud or buck openings) shown in our catalogue No. 89.

16-INCH GLASS width in 14-16-18-inch heights. 1 to 5 vent windows.



20-INCH GLASS width in 14-16-18-inch heights. 1 to 5 vent windows.

32-INCH GLASS width in 14-16-18-inch heights. 1 to 5 vent windows.



40-INCH GLASS width in 14-16-18-inch heights. 1 to 5 vent windows. Top vent fixed in 5-vent units.



44-INCH GLASS width in 14-16-18-inch heights. I to 5 vent windows. Top vent fixed in 5-vent units.



FIXED SIDE LIGHT units for combining with operating units. 16-inch glass width. 1 to 5 vents high.



PLATE GLASS FRAMES for combining with operating units. In width desired, to match 1 to 5 vent heights.

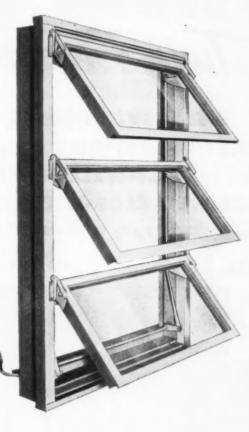


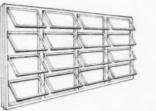
#### FOR LOW COST INSTALLATION

Each window delivered to the job factory-assembled, glazed, with hardware installed and semi-prefit inside screens. Quick, easy installation saves costly labor time. Prompt delivery of stock sizes and styles to fit every need.

For specifications refer to SWEET'S BUILDERS' FILE-4d-GA

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Member of the

Council, Inc.

Producers



- ALL WOOD Perma-Treated for resistance to rot, fungi and termites.
- All IAMB sections cushion seal weatherstripped. **Factory-installed** spring bronze horizontal weatherstripping at slight additional cost.
- SCREENS FURNISHED as standard equipment. Storm sash interchangeable with screens.
- SASH RABBETED for Thermopane alazing at slight additional cost.
- ALL HARDWARE easily accessible for inspection and oiling.



PICTURE WINDOW BEAUTY with plenty of ventilation easily accomplished. Combine perfectly with plate glass centers or fixed side lights.

WINDOW WALLS, beautiful and practical, easily mullioned. Close tight or open wide with fingertip control. Operating handle below sill out of way of blinds.

PERFORMANCE PROVEN over the vears in all types of buildings and all climates and weather conditions.

For further information write Dept. Dept. AB-4 GATE CITY SASH & DOOR CO. Wood Window Craftsmen Since 1910" P.O. Box 901, Fort Lauderdale, Florida

# BILT-WELL

WEATHERTIGHTNESS – to save fuel and EASY OPERATION to save irritation – make both BILT-WELL SUPERIOR double-hung units and BILT-WELL CLOS-TITE casements the outstanding windows in their respective fields



#### "SUPERIOR" JAMB-LINER

The Bilt-Well Patented Superior Jamb-liner provides twin functions. Its flexibility automatically overcomes sticking from expansion also overcomes leaking from contraction. And, because it does both, Superiors fit snugly and slide easily under all weather conditions.

See Our Catalogs 16<sup>c</sup>-CA and 23<sup>b</sup>-CA In Sweet's 1953 File



AMERICAN BUILDER

**BILT-WELL SUPERIOR** Windows give you <u>TWICE</u> the protection against air infiltration as required by American Wood Window Institute's Specifications by <u>Actual Tests.</u> And, Superiors require only 1/10th the lifting effort of most other effectively weatherstripped windows. Yes,— Superior's patented Jamb-liner is the secret. This exclusive feature provides flexibility which insures both finger-tip lift and snug-fitting windows. And "Superiors" are counter-balanced with <u>guaranteed</u> overhead spring balances. These fine features are permanent, no adjusting or servicing. NO OTHER WINDOW IS COMPARABLE!

**BILT-WELL CLOS-TITE** Casements are double weatherstripped to provide the twin features —weathertightness and ease of operation. Full  $\frac{3}{16}$ -inch clearance between beveled edge of sash and frame insures bind-free operation. Both sash and frame are weather-stripped, plus the additional insulating feature of twin glass on all sash. Cadmium finish (weatherproofed) hardware includes patented Extension Hinges (for easy cleaning) and a quiet, smooth Crank-type Operator. Locking handle is bronze plated.

The Bilt-Well Line of Building Woodwork (everything for the home) is made of clear, kiln-dried Ponderosa Pine. Essentially all exterior products are toxic, water-repellent treated in accordance with National Woodwork Manufacturers Association Standards,

The complete Bilt-Well Line-everything in woodwork for the home: Superior Unit Wood Windows • Clos-Tite Casements • Nu-Style & Multiple-Use Cabinets • Carr-dor Garage Doors • Combination Doors • Screens & Storm Sash • Basement Unit Windows • Shutters • Exterior Doors • Interior Doors • Entrances • Louvers & Gable Sash • Corner China Cabinets • Ironing Board Cabinets • Mantels • Telephone Cabinets • Stair Parts

Manufactured by

CARR, ADAMS & COLLIER CO., Dubuque, Jowa





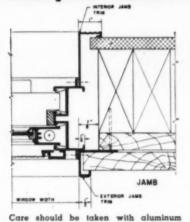
#### DOUBLE WEATHERSTRIPPING

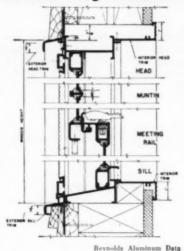
Spring tension weatherstrip (on both sash and frame) is made of anodized aluminum alloy. It is neat, nailless—rolled into a saw kerf in the frame stops at head, sides and sill, and into the four edges of sash. Therefore, sash do not bind even when tested under the most extreme moisture conditions.

ild

BIL

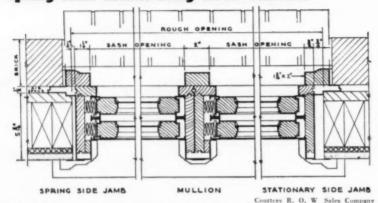
#### detail plates - aluminum double-hung windows





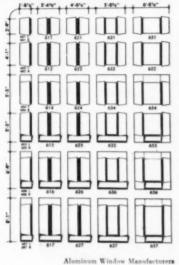
windows to avoid scratches or stains from plaster droppings. Coat sash with petroleum jelly after installation to make for easy cleaning later

#### spring sash double-hung wood windows

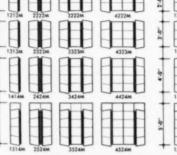


Detail plate shows construction features and installation of spring sash wood double hung windows. Factory-litted windows are delivered to site semi-assembled, weatherstripped, with metal lining for side jambs screwed on and horizontal metals installed

#### AWMA modular sizes - aluminum casements



A.W.M.A. MODULAR



C-A1 CASEMENT WINDOWS in new AWMA modular sizes for residential construction. Dimensions are window opening dimensions. Single ventilator units may be hinged right or left. Fixed types furnished for all sizes shown. C-A2 and

#### (Continued from page 156) Double-Hung Windows

The double-hung window is probably the most common in American architecture, and modern improvements in weights, balances, and weather stripping have kept these windows competitive with most other types in modern construction.

#### Metal Double-Hung

Metal double-hung windows have the same characteristics of other metal windows; they are weatherstripped at the factory, easy to install, easy to care for and operate. Most are made in box-type sections, with glazing done on the job. Some provide for double glazing.

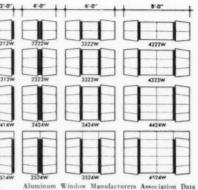
Manufacturers offer a great range of opening sizes, installation hardware and special features. Even though these are fundamentally similar, their slight variations make it imperative to decide on brand and sizes to be used before construction is begun on outside walls, and to follow closely manufacturers' instructions as to installation.

#### Wood Double-Hung

Modern methods which produce factory-assembled complete units have resulted in substantial savings in building costs as against the oldfashioned windows built on the site. Weather strip is placed in the assembled frame, and balances are hooked up ready to operate. Weights and pulleys are now used in only the "economy" types, and complete units are delivered to the building site ready for installation.

The National Woodwork Manufacturers Association has established standards and specifications for the trade, and opening sizes are set up to (*Continued on page* 164)

#### A.W.M.A. WESTERN MODULAR



C-A3 types shown at left may have horizontal or vertical muntins if desired on 20" or 24" bar centers for width and 16" bar centers for height. Fixed lights may be had in place of sill vents

AMERICAN BUILDER



#### STEEL:

18 gauge cold rolled steel.



FINISH:

One Coat baked on primer on all sides.

#### ASSEMBLY:

All frames furnished in complete welded assembly with reinforcing plates behind each mitre joint-no additional labor required at job site. HINGE BUTTS WELDED ON AND STRIKE AP-PLIED AT FACTORY.

Removable spreaders are fastened at the lower ends of the jambs. These spreaders protect the frames during shipping and handling and facilitate proper alignment during erection. They are easily removed after the frames are set.

#### HARDWARE:

For  $1\frac{3}{6}$ " doors (FR-1), one pair  $3\frac{1}{2}$ " x  $3\frac{1}{2}$ " butt hinges and loose pins are furnished. The three-knuckle portion of the hinge is welded to the frame. For  $1\frac{3}{4}$ " doors (FR-2) one and one-half pair 4" x 4" butt hinges and loose pins. Combination Screen Door Frames (FR-C) have

one and one-half pair 4" x 4" hinges for 134" door and one pair of 3" x 3" hinges for screen door. Loose hinge pins are included. Frames for Double Acting doors are reinforced

for pivot hardware. We do not supply this hardware.

A universal type brass strike, complete with steel dust box is attached to the frame. This strike is designed to fit most standardized locks and latches. Where a bit key lock is used re-quiring a two-hole strike, the Aetna universal strike is provided with a lower knockout plate that is easily removed. Patent Pending on strike plate and dust box assembly.

#### ANCHORS:

3

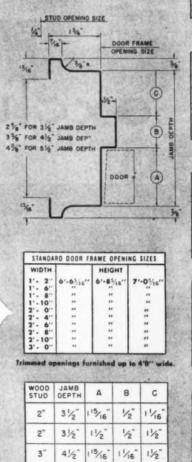
C

5

C

Four Anchor clips are welded to each jamb. T-anchors are furnished for installation in ma-sonry walls. Each jamb section is provided with a floor knee for fastening to the floor.

WELDED

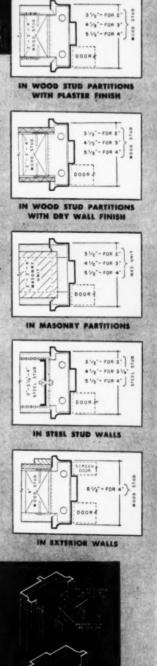


11/2

11/2

1/16

15/16 21/16



**AETNA STEEL PRODUCTS CORPORATION**. Manufacturers of Quality Hollow Metal Doors, Trim and Elevator Enclosures

31

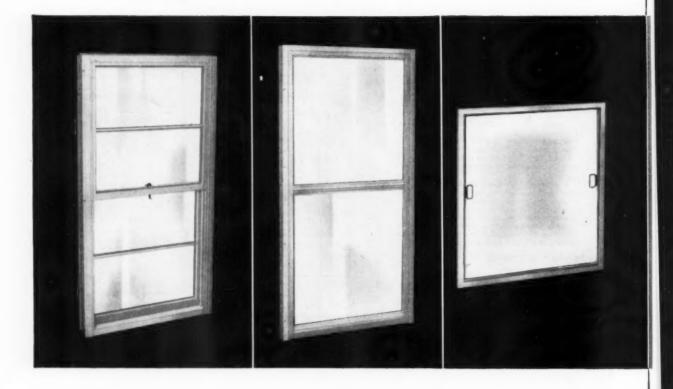
4

41/2"

51/2

Executive Offices: 730 Fifth Avenue, New York 19, N. Y.

# new! exclusive!



#### **CECO-STERLING**



#### ALUMINUM WINDOW

In the hard selling, competitive days ahead "quality built" homes will sell faster. . . keep your speculative inventory low. And there's no better way to prove quality than to build with wanted features.

To meet this more demanding market we at Ceco have developed a new product that says quality at a glance—It's the new Ceco-Sterling 3 [in] 1 Aluminum Window.

Here is something every homeowner will want on sight ... a window unit that takes all the work out of summer screening and winter storm windowing ... self-storing screens and storm windows do the trick ... changing is a mere matter of raising and lowering from the inside ... there are no ladders to climb.

Here's a window that's brilliantly handsome ... will complement any architecture ... will outlast any home ... costs nothing to maintain. Advanced Engineering puts it ahead of the field.

Sounds too good to be true, doesn't it? But you can count on it because the Ceco-Sterling 3 in 1 Aluminum Window is all we claim. We back it with a guarantee of satisfaction.

#### CECO STEEL PRODUCTS CORPORATION

Offices, warehouses and fabricating plants in principal cities General Offices: 5601 W. 26th St., Chicago 50, Illinois

#### Why Home Owners Will Prefer the Ceco 3 in 1 Window

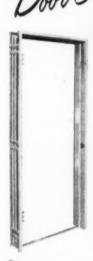
- The Ceco 3 in 1 Window is the strongest Prime Window with sash balances and stainless steel weather stripping plus combination screen and storm panels offered as a unit package.
- Exclusive permanent weather seal, nothing make-shift, nothing to deteriorate, wear out or replace. No window can match it in preventing air and cold infiltration.
- 3. Self-storing storm window and screen changed as easy as raising an arm.
- New Beauty ... made of lustrous aluminum ... modern design complements any architecture.
- L. Hifetime...made of ageless aluminum. Prime Window is all welded construction.
- 6. Ease of operation. Prime Window raised or lowered with finger tip.

In construction products CECO ENGINEERING makes the big difference

#### Why Builders Will Prefer the Ceco 3 in 1 Window

- The Ceco 3 in 1 Window is the strongest Prime Window with sash balances and stainless steel weather stripping plus combination screen and storm panels offered as a unit package.
- 2. Easy to install . . . no fitting or trimming of the Prime Window.
- 3. Easy to anchor Prime Window. Better engineered Ceco anchoring hardware comes with the unit.
- Built as a unit ... sold as a unit with price including all hardware, sash balances, lock, pull down, screws, closures, channels and weather seal.
- All welded frame and sash in the Prime Window.
- 6. One source of purchase for the 3 in 1 unit, Time and money saved in buying.

So be sure this new Ceco window creation is in the homes you build. You can be sure it will improve any home and cost will be competitive. Smart Builders Cut Costs With ONE-DER METAL Door & Window



One-Piece Frame for Any Type Construction

Completely assembled—ready to install—nothing else to buy! For brick, block or frame; all Metal Window Institute standard sizes.

FOR BUILDINGS LARGE OR SMALL

## **ONE-DER** FRAMES FIT THEM ALL I



Quick, Easy Installation

Set ONE-DER Metal Frames in place,

level up and installation is complete. No finish carpenter labor! And prepriming means less painting!

For Further Details see Sweet's File 15a/On and 16b/On Order TODAY from your dealer, listed in Yellow Panes of Telephone Directory, or write—



(Continued from page 160) conform to modular principles. Weather stripping has advanced to the point where some manufacturers are using tension-type weather strip to hold the window in any position and eliminate the need for balances of any kind. This also allows for easy removal of the window for cleaning and painting without removing any interior frame stops.

#### Awning Types

The awning-type of window, wood or metal, is basically a casement window turned on its side with the hinge at the top. Wood awning windows usually have sash or vents hung from the top and hinged by brackets to the jamb. The bottom rail of one unit interlocks with the top rail of the one below. The sash are usually controlled by worm or gear mechanisms, and good ventilation is possible, as most units may be opened to 90 degrees. In many types, units may be left open without danger of rain driving in.

Some units have motor-driven operators. Most of them permit the bottom vent to be open a crack without the others being open at all, and allow the top unit to drop inside for easy cleaning of the remainder from inside the room. Both wood and metal are available in a complete range of sizes.

#### Metal Casements

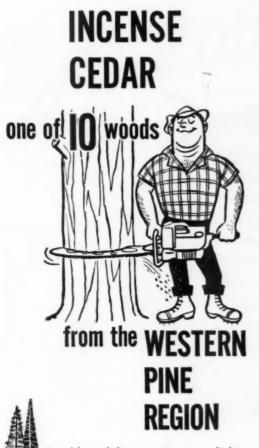
The Aluminum Window Manufacturers Association and the Metal Window Institute have set up specifications for the trade pertaining to aluminum and steel windows, respectively. Steel windows are bonderized and painted with special primer, while aluminum windows are cleaned and coated with clear lacquer by the manufacturer and do not require painting.

Light in weight, metal casements are surprisingly strong, durable, and easy to work with. However, care should be taken in installation to avoid rough handling which might bend slender frames or sash out of shape. Following manufacturer's instructions for installation should result in snug-fitting windows with all screens and storm sash fitting properly and hardware functioning easily. *Horizontal Sliding Windows* 

The horizontal sliding window came into being when someone turned a double-hung window on its side. Since 1940, the spring-type weather stripping has made possible weathertight operation. This type of window permits larger glass areas than most other types of movable window, and has increased in popularity because of that fact.

(Continued on page 168)





A.R.

Durable and decay-resistant . . . light weight and easily worked . . . receptive to paints and stains of all kinds . . . this pleasantly fragrant softwood is in demand for a wide range of residential and industrial construction work.

This is but one of ten fine softwoods from member mills of the Western Pine Association. All are manufactured, seasoned and graded to exacting Association standards. Lumber dealers, builders, architects and wood users have found them dependable and best for many construction uses.



#### THESE ARE THE WESTERN PINES IDAHO WHITE PINE

PONDEROSA PINE . SUGAR PINE

THESE ARE THE ASSOCIATED WOODS

LARCH • DOUGLAS FIR WHITE FIR • ENGELMANN SPRUCE INCENSE CEDAR • RED CEDAR LODGEPOLE PINE



Write for free illustrated Facts Folder on Incense Cedar. Address: Western Pine Association, Yeon Building, Portland 4, Oregon.

# EVERYBODY



### PROFITS WITH

e completely modern Sash Balance

BUILDER

Hidalift cuts installation time and costs because it's easier, faster to install and tension.

#### DEALER

Hidalift sells on sight. It's easy to handle. Builds up sales volume and goodwill.

#### ARCHITECT

Hidalift doesn't mar the beauty of modern windows because Hidalift is 100% concealed.

#### HOMEOWNER

Hidalift insures lifetime wear plus ease of operation. Increases resale value of home.

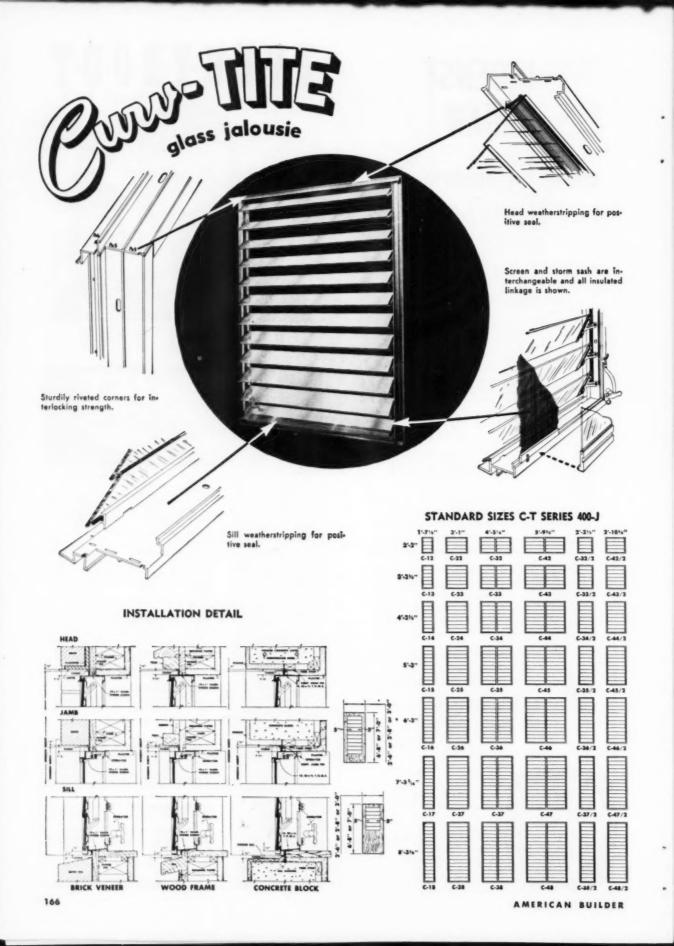
te sure and sond for the new falder which illustrates and describes Hidaliff's many quality features and Installation advantages.

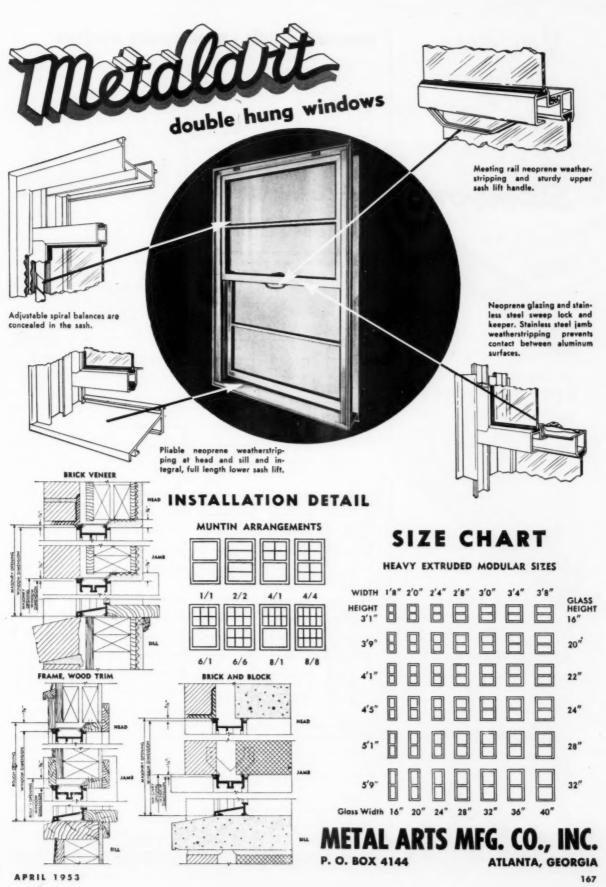
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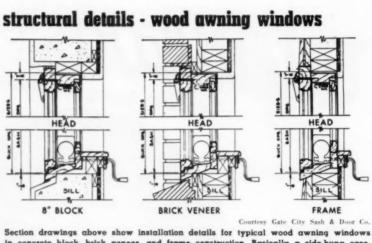
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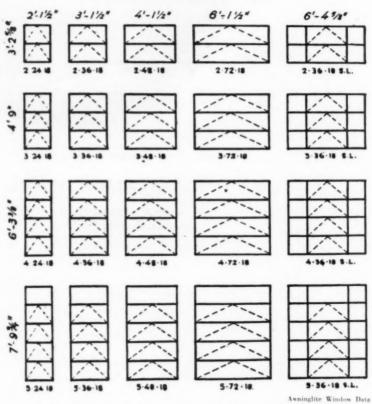






section ardwings above snow installation details for typical wood awning windows in concrete block, brick veneer, and frame construction. Basically a side-hung casement type, such windows fit into many modern types of construction

#### Wood Awning Windows Standard Styles and Sizes



(Continued from page 164) Walls of Glass

The modern trend is definitely toward the use of larger glass areas in home construction. Picture windows have grown to be whole walls of glass, and two of the nation's largest glass manufacturers are making available a double-pane unit which reduces heat loss or gain from windows and makes the glass wall truly practical. Glass block is frequently used with

picture windows, a common application being a plate glass or doublepane picture window flanked on each side with sections of glass block into which is built a ventilating louvre unit.

Plate glass is frequently used where problems of insulation and heat loss are not acute, but the double-pane unit is becoming ever more popular in

(Continued on page 177)

AMERICAN BUILDER



"Quality-Approved" Aluminum Windows are any homebuyer's assurance of trouble-free window service—with no painting, no rust, no rot for the life of the house. Maintenance becomes simply a matter of occasional washing. Windows always open and close easily.

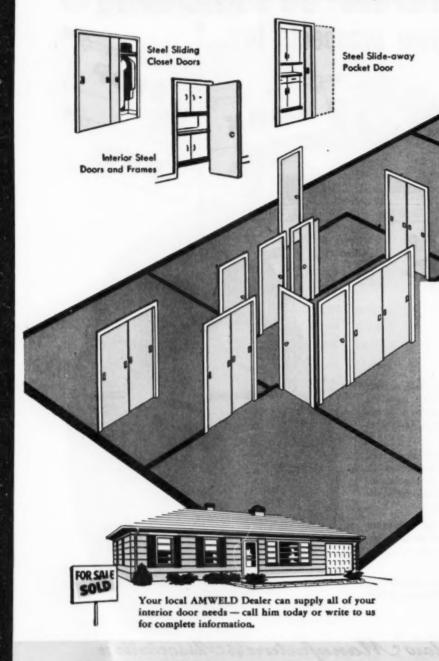
"Quality-Approved" Aluminum Windows pay you extra profits because they're easier to handle and install-because they add customer appeal that helps you sell your houses faster.

For detailed information, write any "Quality-Approved" Manufacturer, see Sweet's Builder's File (Section 4c/ALU) or write to Dept. AB-4.

Aluminum Window Manufacturers Association

# YOUR HOMES WILL SELL FASTER with AMWELD<sup>®</sup> salesmen in every room

Look how the AMWELD line can fill your every interior door requirement



Take an average 3 bedroom home like this - AMWELD interior doors throughout can help make the difference between a quick turnover, at your price - or a FOR SALE sign up for weeks. AMWELD modern, attractive design and all steel construction - eliminates warping, shrinking, cracking and maintenance - often means a SOLD sign in the front yard before the paint dries. In addition to making homes more salable, you, as a builder, can realize a healthier profit on every house built with AMWELD frames, flush doors and sliding closet units. Builders everywhere report AMWELD closet door units, doors and frames can be installed more quickly and at lower installed cost than hand-fitted types.

AMWELD' BUILDING PRODUCTS DIVISION

# TAKE YOUR CHOICE of these AMWELD<sup>®</sup> Space Savers

## AMWELD<sup>®</sup> Steel Sliding Closet Door Units

- Eliminate waste door swing area,
- Provide more useful storage.
- Make entire closet interior usable.
- Make wall and floor space adjacent to closets available for living area.
- Easy-to-install.

#### AMWELD<sup>®</sup> "K-D" Sliding Closet Doors Birch Finish or grey prime coat

Save from 6 to 9 square feet per closet in waste door swing space. Available factory painted with baked-on neutral grey enamel primer — ready for your choice of finish coat or can be furnished with new Birch Finish ready-to-install.

Made of 20 U. S. gauge cold rolled steel. They will not warp, shrink or crack. Ideal for closets, cupboards, as well as basement, attic and garage storage units.

#### AMWELD "Assembled" Sliding Closet Door Unit

One piece welded frame comes ready-to-install. Prime finish panels same as "K-D" unit. All hardware supplied. Can be supplied for plaster, wood stud, or masonry walls.

#### SIZES AVAILABLE "K-D" (BIRCH FINISH AND PRIME FINISH)

REPRESENT FILE		an	d ASSEMBLED UNI	TS
		Opening	No. Panels	Height
1 and 1		3'0"	2	6'91/2"
1/2		4'0"	2	6'91/2"
	E	5'0"	2	6'91/2"
	1	6'0''	2	6'91/2"

#### AMWELD SNAP-IN HARDWARE

"K-D" and Assembled Sliding Closet Door Units furnished with time saving easy to snap in hardware. No screws, nuts or bolts required. Saves time on installation — makes job simple and secure.

- All hardware simply snaps in place.
- Two deeply recessed non-tarnishing plastic door pulls snap in each panel.
- Lifetime rollers provide easy, silent operation.
- Self-adjusting spring-held guide keepers assure ease of operation prevent sway and derailing.



#### And here is the Newest AMWELD<sup>®</sup> SPACE SAVER A MWELD<sup>®</sup> SLIDE-AWAY

#### Pocket Door and Frame Unit

Eliminate door-swing problem areas with the AMWELD Slide-Away. Modern, attractive flush door when closed — glides into wall recess, out of sight — out of the way. All steel door construction — will not warp, crack, or shrink. Comes factory primed with grey baked-on enamel ready for your choice of colors. Frame unit available separately if desired.

Easy-To-Install—Framing Unit is made of heavy gauge steel channel with wood core — nails to ordinary studding.

Brass Finger Pulls or Latch Sets—Finger pulls can be furnished for closets and ordinary doorways —latch sets available for bathrooms and bedrooms.

Two Sizes Available — The Slide-Away is furnished in two widths — 2'6'' and 2'8'' for  $(1\frac{3}{6})''$  thick, 6'8'' high) AMWELD Steel Flush Doors.



#### AMWELD Interior Steel Doors

#### and Frames

Trim and neat in appearance, AMWELD interior flush doors go well with any decor. Installation is quick and easy installed cost in most cases is considerably less than handfitted types. Frames are factory primed with grey baked-on enamel, ready for your choice of color. All steel construction eliminates cracking, warping and shrinking. Available in  $1\frac{3}{2}$ " and  $1\frac{3}{4}$ " doors and are furnished in all standard sizes and frames. Available for plaster, stud or masonry wall construction.

#### AMWELD® INTER-LOK "K-D" Steel

#### **Door Frames**

Here is an interior door frame that one man can assemble in 11 minutes. Hammer is only tool needed — no screws or pins. Corners are mitered does not require open corners to fasten assembly together.

Supplied in 41/4'', 51/4'', 61/4''jamb thickness for 1'6'', 2'0'', 2'4'', 2'6'', 2'8'' and 3'0''door widths. Made of 18 U. S. gauge steel, frames are grey primed at factory.

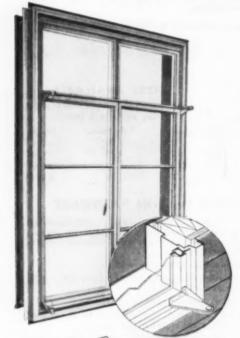


THE AMERICAN WELDING & MANUFACTURING CO. 310 DIETZ ROAD . WARREN, OHIO



# A COMPLETE LINE OF QUALITY METAL

#### STEELCRAFT STEEL RESIDENCE CASEMENTS MADE OF HOT ROLLED SECTIONS ....

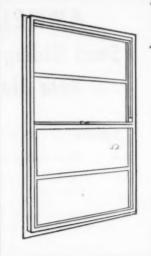


Steelcraft Steel Residence Casements are made of heavy hot-rolled solid sections of uniform thickness, with butt welded mitred corners. Extra long reinforced hinges provide ample clearance for safe and easy cleaning of the exterior of the glass from the inside. Sections are designed for maximum daylight. Heavy bronze finish roto or lever type hardware may be used for ease in operation of the ventilator. Screens and Steelcraft Aluminum Storm Sash are easily attached to the inside of the frame. All standard Western and West-

ern modular sizes also available.

#### Steelcraft (Steel Inside-Outside Trim)

The installed cost of trim and casement window is considerably less than the multiple piece window frames and trim. It is a complete inside-outside window trim . . . no extras to buy . . . the window sill, the window stool, the inside moulding and the outside trim, the inside trim, the fins, the flashing-everything it takes to trim a window. It's all galvanized and bonderized with a bakedon coat of paint for long-lasting protection.

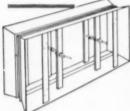


#### Steel Door Frames

Use this modern building product at a great reduction in cost. Onepiece all welded con-struction . . . . won't struction . . . won't crack, shrink, swell or warp. Reinforced mitred corners won't open. Hinges spot welded to frame; brass strike plate loose hinge butts and pins furnished.

#### **Knocked Down Door Frames**

Knocked down door frames are designed for economical shipping, for maximum storage, for quick easy assembly and installation.



#### Steel **Basement** Sash Form

Easy to use. Saves time. Eliminates wood form carpentry, as-sures correct place-ment in wall and provides attractive bevel finished perimeter.

#### **Steel Basement Sash**

Steelcraft steel basement windows are made of hot-rolled sections which provide double weathering contact throughout. Armless ventilators assure trouble-free operation. Positive handle locks sash tight against frame.





**Steel Utility Window** For barns, basements, shops and garages. They have removable tilt-in type armless ventilators and provide continuous double weathering contact.



#### **Exterior Surround**

Designed with identical contours and ends accu-rately coped, this surround presents neat corners and joints in the assembly. It is nailed to the rough open-ings and the casement is attached with self-tapping screws

#### Steel Lintel

Available in a wide range of stock sizes for any window or door opening. Continuous ribs strengthen the heavy gauge steel, and provide an excellent base for brick and mortar.



DETAILS OF HOT-ROLLED SECTIONS











THE STEELCRAFT MANUFACTURING COMPANY, ROSSMOYNE,

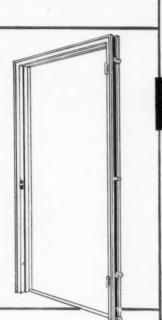
#### ALL STEELCRAFT STEEL PRODUCTS ARE **BUILDING PRODUCTS** BONDERIZED ACCORDING TO STEELCRAFT'S RIGID SPECIFICATIONS

#### INDUSTRIAL WINDOWS

#### Aluminum **Double Hung** Windows

The trim appearance of Steelcraft aluminum double-hung windows blends with all types of architecture. They are quickly installed . . . easy to operate ... will not rust, rot or decay and never need painting. Flexible stainless steel and rubber weather stripping make both heating and air condi-tioning more efficient. They are delivered complete, factory assembled, no extras to buy, no hardware to install . . glazed or unglazed according to your specifications

•Will be available shortly.



# Commercial

· Hot rolled new billet steel

Sturdy heavy duty construction





Easily installed

Made of hot rolled new billet steel, Steelcraft pivoted windows are engineered for permanent easy operation of the vented section. They cannot stick, warp or shrink. The outside sections are

Projected Window

angle shaped to provide firm anchorage in the masonry or mullion connection. Double Flat contact weathering is pro-vided on all four sides of the ventilator.

Security

Window



#### **Steelcraft Intermediate Projected Steel Windows\***

Steelcraft Intermediate Projected Steel Windows are designed for use in schools, hospitals, offices and other types of buildings where maximum light and draft-free ventilation are important factors. They are easily screened and will not interfere with blinds or shades.

Steelcraft Intermediate Projected Windows are made of high quality hot-rolled, new billet steel and are sturdily constructed. Double contact weathering is provided on all four sides of the ventilators.

\*Will be available shortly.

#### Steel Doors\*

Steelcraft industrial steel doors will not warp, shrink, swell, chip or splinter. They are fire-resistant and will give years of trouble-free service. They come to the job with lockset and hinge cut-outs already fabricated to receive hinge cut-outs already fabricated to receive standard tubular lock-sets . . . no fitting, no drilling or mortising, simply insert hardware and hang door. Rights and lefts are inter-changeable by reversing the doors. Steelcraft doors are finished with a special baked-on enamel providing an excellent base for field minime painting.

\*Will be available shortly.





**Steel Sliding Closet Doors**  Packaged ready to install · Easy screwdriver installation · Cut construction cost · Give added closet space

Steelcraft's new metal slide closet doors give extra storage space to any closet and give direct access too. No cutting .. fitting ... or unnecessary "extras." This door and frame is a complete packaged unit ready for installation!

**Spacemaker** 

Two types of side trim and complete steel casing available.

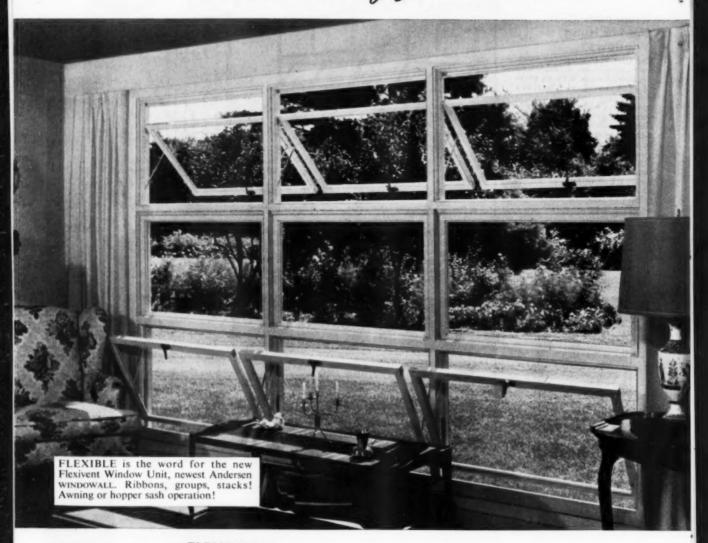


Intermediate **Projected Window** 

00

ON

Indowall **Choice of 4 complete** wood window units...



# Versatile *FLEXIVENT* window—newest Andersen unit

JUST LOOK! 3 1. Outswinging awning sosh 1. Outswinging awning sosh 2. Inswinging topper sosh FROM JUST ONE UNIT!

3. Outswinging casement sash

VERSATILE—You never saw a window with more uses than the new Andersen Flexivent. Hundreds of combinations possible from 9 sizes of units.

LOW IN COST—Simple hardware, simplicity of design and simple operation on friction hinges have kept the cost of Flexivent low. Fine for medium and low priced houses!

HIGHLY WEATHERTIGHT-Flexivent is completely weatherstripped. Outside double glazing panel optional.

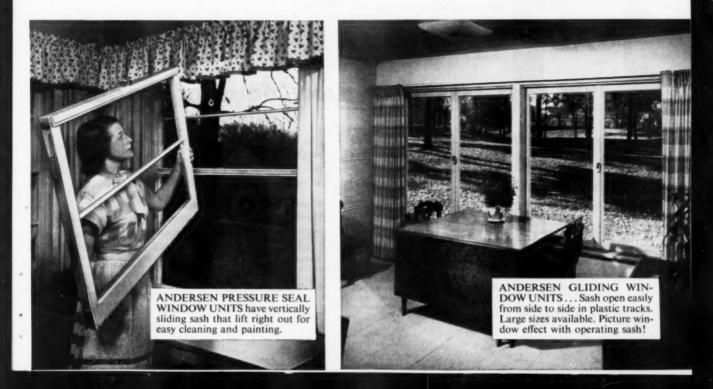






Andersen WINDOWALLS are *complete* wood window units . . . carefully engineered and precisely manufactured from beautiful *insulating* wood. Sold only through millwork dealers. For specification data and details, see your millwork dealer, consult Sweet's Light Construction File, or write Andersen Corporation.

Andersen Corporation BAYPORT . MINNESOTA . WINDOW SPECIALISTS FOR 50 YEARS





### ADD \$\$\$ TO HOUSE VALUES-

### YET COST LESS THAN MANY DOMESTIC WOODS!

Genuine African Mahogany is recognized everywhere as the King of Woods—is far more *desirable* than ordinary woods.

Mengel Mahogany Flush Doors are built with faces of genuine African Mahogany, which *automatically* upgrades any building in which it is used.

Yet you can buy Mengel Flush Doors, or Standarder Flush Doors, with faces of genuine African Mahogany, for fewer dollars than you'd pay for comparable doors of almost any domestic wood! The Mengel Company operates its own logging concession and mill in the best Mahogany section of Africa, and imports this King of Woods in tremendous volume. You get the savings!

Equally important, Mengel and Standardor Flush Doors are built *better*, to give *better service*. Compare specifications, either in Sweet's or at your dealer's. You'll be glad you investigated!

> Door Department THE MENGEL COMPANY Louisville, Kentucky

### AN ALL NEW DESIGN THAT TRANSCENDS CENTURIES OF SAW AND HAMMER THINKING

Kewanee steel

door frames

### THE FIRST ADVANCED STEP IN DOOR FRAMING

### **MODERN APPEARANCE...**

A truly beautiful door frame; gives rooms **a** look of spaciousness. No dust-catching projections, Slender, graceful, tight-fitting lines,

### LOWER FIRST COST ....

The most economical door frame on the market.

### LOWER INSTALLED COST ....

Can be installed in a fraction of the time required for ordinary jamb and trim. Installation is simple, requiring about  $\frac{1}{12}$  the time. No mortising of jambs for hinges and strike ... no trim to be applied later ... no filling of nail holes ... no prime painting.

### SHIPPED KNOCKED DOWN ....

Compactly packaged in individual shipping cartons, Kewanee door frames are easy to handle and store, and they arrive on the job in perfect condition. Kewanee has found a way to beautifully finish door openings, throwing into discard long hours of cutting and fitting, and highcost superfluous material. The Kewanee steel door frame, consisting of three pieces quickly installed with only two tight-fitting joints, provides a perfect meeting of plaster or drywall with the frame.

Patent Pending

### CONSTRUCTION FEATURES ...

Nail holes are provided every 7" along flanges of frame, assuring rigid attachment to subframe, preventing vibration and eliminating metallic sound. Jambs punched and recessed for standard butt hinges.

### MADE IN TWO TYPES ....

Plaster type has recessed edge which serves as plaster ground. Made of galvanized steel, especially treated for perfect paint adhesion. Drywall type has recessed edge to receive wallboard. Resulting joint requires no taping. Made of cold-rolled steel, coated with aluminum primer.

Try Kewanee Door Frames in Your Next Project

### OTHER KEWANEE BUILDING PRODUCTS



### STEEL WINDOW BUCK ...

The very best and cheapest method of installing Kewanee steel basement windows in poured concrete foundations. Eliminates labor and material for making wood forms, strips cleanly, and leaves the window frame securely imbedded in concrete. If you pour your foundations, the Kewanee Window Buck is a MUST.

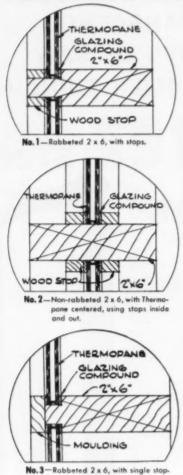


Nation's biggest selling steel basement window. Tight-litting with broad sill and wide fins. Long locking handle gives jam-tight closure. Provided with arms for sale operation. Supplied for putty or puttyless glazing. Kewanee screens and storm sash snap on in an instant without use of clips or screws. An Economical, Beautiful Door Frame Write for literature,

### KEWANEE MFG. CO.

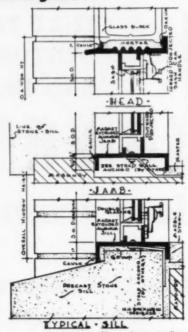
4453 Burlington Ave., Kewanee, Illinois

### structural details — walls of glass . . .



Libby-Owens-Ford Data Three suggested methods for framing double-glazed windows. Dimensions of openings should be ½ inch larger than unit being installed. Ample glazing compound must cushion glass unit, with setting blocks used for any double-glass units whose width and height combined total 80 inches or more

(Continued from page 168) the "window wall" type of construction. This double pane typically consists of two pieces of good quality plate glass mounted in rubber with an air space of ¼ inch or so between. This provides insulation and reduces the condensation which usually occurs on glass in cold climates. Triple glass units are also available.



Detail plate above shows installation detail for double-glazed window unit installed in glass block panel. Ventilator unit is extruded aluminum, outward-projocting type

### Special Types

There are many and varied special types of windows available both as standard units and as custom-made installations. Among them are the electrically-operated picture windows which are hung from a metal screen which rolls up at the top. As the screen unrolls, the window drops down into a slot and the screen covers the opening. These motor-driven units come complete in a package, ready for installation.

Another special type is a modification of the simple utility window, and is a bottom-hinged panel opening inward with screening across the opening. The entire unit is in a metal frame ready for installation in a glass block wall. Modular units are available.

Louvred window units for use with picture windows can be obtained in



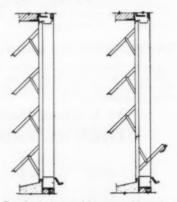
Courtesy Vita Automatic Windows, Inc.

Electrically-operated window is lowered into frame below window opening, raised by power driven unit. Screen is attached at top of window sash and follows window as it descends to keep opening covered and insects out

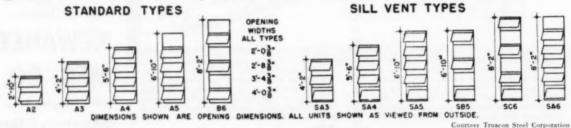
wood or metal. These are strictly ventilating devices, can be closed and made weather-tight. Other types of jalousie windows, with horizontal strips of glass, are rated as weathertight and provide controlled ventilation as well. Glass jalousies are frequently installed in door panels.

Another manufacturer produces a louvre-type shade screening of metal with the louvres set close enough to keep out pests and insects but far enough apart to provide ventilation and shade. This also affords privacy, as you can see out but people on the outside cannot see in.

Tension screens are another recent development which housewives have found convenient, especially when it comes to cleaning windows. Screens snap into place from the inside, roll up for storage and are easily manipulated.



Two basic types of louvres, with projectout and project-in bottom light



178



# the best cost less?



**R**•O•Ws outsell other windows by 2 to 1 Production economies have made it possible to sell this premium quality window (with the extra-value removable feature) at a lower price than ordinary quality windows.

#### See your local lumber dealer or write

R.O.W SALES COMPANY 1328 .. 66 ACADEMY AVENUE . FERNDALE 20, MICHIGAN



Split-level homes are gaining popularity in Eastern States. Ted Engleman, of Adelman Lumber Co., reports that many builders in the Pittsburgh area are concentrating entirely on this type of residential construction.

It is significant that tri-levels are now being built by speculative operators. Until recently, only a few custom homes were designed to capture the best features of both the one-story and two-story houses. Public enthusiasm has been generated-first of all-by the pleasing variety of exterior lines. The tri-level home can be designed to hug the ground with the attractive primary lines of a long, low, one-story structure. Those who object to the extreme contemporary "flat-top" singlelevel monotony find variety in the half-story difference between sections of the roof.

Architects are encouraging this trend toward increasing the amount of usable living space within the exterior limitations. Much of the privacy of a good two-story structure can be achieved in the tri-level and many construction economies (heating, plumbing, wiring, roofing, etc.) are possible. The split-level home offers a good compromise between the economy of a two-story residence and the charm of ranchtypes.

Paul Hodges and Ralph Lineberger of Royal Oak Wholesale Company, Royal Oak, Michigan, find that their customers (Michigan lumber dealers) are leaning more and more toward the handling of brand-name products only.

Hodges feels that home buyers are now demanding the products with which they are familiar. In turn, builders are willing to pay a fair premium for high-quality, nationally known, building materials. Dealers don't like to inventory products which don't sell. They find that "off-brands" are not a bargain at *any* price.

This attitude of lumber dealers fits in with the general trend toward more aggressive dealer merchandising. Building material dealers find that local merchandising is most effective if it ties in with national sales promotion and advertising programs of the product manufacturers.

(Advertisement)

Studies are now being conducted in ten  $R \cdot O \cdot W$  manufacturing plants to determine the best method of treating wood against decay and simultaneously reducing swelling and shrinking to a minimum.

Wood treating has been general practice among R•O•W manufacturers for some time but there have been differences of opinion about the most effective solutions and the value of the vacuum process as opposed to the dip-method. Deeper penetration and greater production speeds are claimed by those favoring vacuum process.

In many areas, home buyers have been educated to expect homes to "come equipped." They have seen so many new houses with dishwashers, garbage disposers and other appliances that builders are having trouble selling new houses without them. In Los Angeles, according to T. M. Cobb Company, wholesale building material suppliers, four out of five of the 5000 new homes completed each month are equipped with a garbage disposer.



The R+O+W DISTRIBUTORS plant at Rocky Mount, Virginia is owned and operated by D. C. Vaughn. This plant long has been called "the largest sash and frame operation in the world." It is generally conceded that this plant, alone, produces more wood windows than the total sold under any other name. It is one of the eleven primary R+O+W plants established at strategic shipping locations throughout the country.

In addition, there are fifteen  $\mathbf{R} \cdot \mathbf{O} \cdot \mathbf{W}$  assembly plants and fifty national warehouses to further reduce shipping costs and improve delivery service. Fifty two distributors and over 400 salesmen serve a total of nearly 11,000 authorized dealers. Arthur E. Blow, who has been President of  $\mathbf{R} \cdot \mathbf{O} \cdot \mathbf{W}$  Sales Company since its start in 1939, is confident that the national preference for  $\mathbf{R} \cdot \mathbf{O} \cdot \mathbf{W}$  s will continue to increase. This, in spite of increased direct competition.

"We not only make a better quality window," Mr. Blow says, "but the plus-value removable feature doesn't bring our price above other good wood windows. The additional fabrication cost is offset by the savings gained from our method of distribution.

(Advertisement)

# - avoid annoyance!



Buyers of modern homes are entitled to the convenience and beauty of removable wood windows. No other window can duplicate the weather-snug construction of  $R \cdot O \cdot Ws$ . Over 8,000,000  $R \cdot O \cdot Ws$  are now in daily use.

#### See your local lumber dealer or write

R.O.W SALES COMPANY 1328 ... 66 ACADEMY AVENUE . FERNDALE 20, MICHIGAN



### FLIP...and it's OPEN! ZIP...and it's CLOSED!

### Pre-packaged, Ready-to-Install NOVOPLY\* SLIDING DOOR UNITS assure permanently trouble-free service!

Novoply Sliding Doors are s-m-o-o-t-h, e-a-s-y gliding doors! An adult can push 'em back and forth with a finger...and even a little child can always work them without any trouble at all!

These precision-built units are very simple to install ... easy to adjust. Made of the flattest paneling ever produced – beautiful  $\frac{3}{4}$  thick Novoply – they are guaranteed not to warp more than  $\frac{1}{6}$ , if properly installed.

They come pre-packaged, with pre-cut jambs and header as well as all necessary hardware, including ball-bearing top guide rollers and overhead track.

Ideal for closets and non-loading bearing partitions between rooms. Novoply Sliding Doors are wanted for new and remodeled homes... office buildings... apartment houses... hospitals, schools, motels and trailers. A *tremendously* profitable market you *can't* afford to miss!

So see these Novoply Sliding Door Units right away. Our warehouses have them in stock and will give you complete details. Or, use coupon below.



UNITED STATES PLYWOOD CORPORATION World's Largest Plywood Organization

\_\_\_\_\_

55 West 44th Street, New York 36, N. Y. AB-1-53
Please send me further information, dimensions, etc., on Novoply Sliding
Door Units.

\_Zone\_\_\_\_

State

Name\_\_\_\_

City-

HOPE'S NEW COMBINATION INSIDE-OUTSIDE METAL TRIM

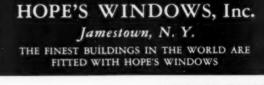


### HOPE'S STEEL RESIDENCE CASEMENT WINDOWS

Hope's new Inside-Outside trim combination saves you money, time and effort installing Hope's Steel Windows. Rough openings easily prepared; no sheathing to cut back or notch; you install trim without need for any finished carpentry whatever, either inside or out.

This solid steel trim construction makes window frames that never warp, shrink or swell and are fire, insect and vermin proof, adding extra value to the home...with lower costs to the builder.

Hope's new Metal Trim combinations assemble completely in a few minutes either at the warehouse or on the job. They accommodate all standard sizes of Hope's Steel Windows. For complete information write for Brochure No. 132.



PUT THE BUILDING	make the homes you build FULLY
BOOST SALES     Rough Stud Opening For Single Unit       Capitalize on Etling Win- dow sales appeal. Sell homes faster, at greater profit.     20 x 16 2'51/2'' x 3'83/6'' 20 4'43/8'' 22 4'83/8'' 24 5'03/6'' 28 5'83/6''	MODERN with low-cost
CUT COSTS         24 x 16         2'91/2" x 3'836"           Easy to install. Just place it, square it, nail it.         24 x 16         2'91/2" x 3'836"           20         4'436"         24           20         4'836"         24           22         4'836"         28           28         5'838"         28           28 x 16         3'11/2" x 3'836"         3'36"           22         4'436"         22	Alimetic ROYAL
24         5'038''           28         5'838''           28         5'838''           32 x 16         3'5½'' x 3'838''           20         4'438''           22         4'836''           23         24           5'838''         20           32 x 16         3'5½'' x 3'838''           20         4'836''           22         4'836''           24         5'038''           28         5'838''	ALUMINUM COMBINATION STORM-SCREEN DOORS
frame. Carton-packed.       36 x 16 3'91/2" x 3'83'8"         PICTURE       20 4'43'8"         WINDOWS       22 4'83'8"         In-swinging side sash.       36 x 16 3'91/2" x 3'83'8"         Stationary center section       36 x 16 3'91/2" x 3'83'8"         Mdd 177's" to total glass       36 x 16 3'91/2" x 3'83'8"         Mdd 177's" to total glass       36 x 16 3'91/2" x 3'83'8"         Mdd 177's" to total glass       36 x 16 3'91/2" x 3'83'8"	ROYALS add charm and extra value to every style of home and your buyers will go for their practicality! ROYALS take all kinds of abuse; never need painting; assure savings on upkeep and repairs for years to come. Your local building supply dealer has the new Alumatic ROYAL — see for yourself how much more beauty and value the ROYAL can add to your homes. Special low con- tractor prices — delivered complete with all hardware, closer, and aluminum jamb — ready to install!
Thermopane, or 1/4-inch plate glass. 10 STYLES 35 SIZES WRITE TODAY: Please send catalog, specifications.	Advinctic CORPORATION OF AMERICA EXECUTIVE OFFICES: Milwaukee 14, Wisconsin PLANTS: Milwaukee 14, Wisconsin; Paterson 5, New Jersey Cost 5, Softh St., Milwaukee 14, Wisc
NameAddressCity—StateCity—State ETLING WINDOW DEPT. AB-534 BARBERTON, O.	IN CANADA: Aluminum Bidg. Prod. Co., Ltd. Windsor, Ontario Manufacturers of femous ALUMATIC and ARALUM aluminum combination storem-screen windows, screen doors, screens and porch enclosures. CityState

Ś

DOILALHUNG WINDOWS







PICTURE SLIDE WINDOWS



ALWINTITE ALUMINUM WINDOWS

### make houses EASIER TO SELL!

Building a few houses or a large development, you'll find ALWINTITE aluminum windows offer real "sales appeal." ALWINTITE offers a choice of window styles to satisfy any house design. All are finest quality. All are easily installed.

### **DOUBLE-HUNG WINDOWS**

Available in 4 basic types, in 35 standard stock sizes. Completely assembled with built-in weatherstripping. Also available with Fin-Trim. Corner, bay and in-line mullions. Screens and storm sash to fit.

### **PICTURE WINDOWS**

In 21 standard sizes. Can be used alone or with doublehung windows for ventilation. Will take 1/4" plate glass or 1" double glazing (Thermopane or Twindow).

### **SLIDING WINDOWS**

In 12 modular sizes and 3 standard sizes, with or without Fin-Trim. Use independently or in window panel systems. Can be mullioned horizontally. Screens and storm sash available.

### **PICTURE-SLIDE WINDOWS**

New picture window flanked by sliding vents at each side. Available in 3 standard sizes with integral Fin-Trim. Ideal for living rooms, dining rooms, kitchens and bedrooms.

### VIEWall WINDOWS

Large floor-to-ceiling (6' 434" high) picture window unit in 3, 6 or 9 light sections with sliding wndows and fixed lights. Will take stock size Thermopane.

### COMBINATION STORM WINDOWS and DOORS

In addition to its line of prime window products, ALWINTITE also manufactures a line of "Triple Channel" combination windows and a superior quality combination storm door. Write for complete details.

The complete line of ALWINTITE window products are stocked and warehoused by distributors from coast to coast. For detailed installation drawings, a copy of our complete catalog and prices, write to Dept. AB-4.





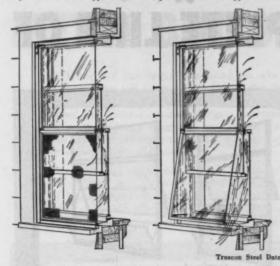
### combination screens and sash units

### FOR SUMMER

During rainy weather the top sash may be lowered to allow ventilation. Air will enter through the screen and flow up around the meeting rail and top section of the upper sash.

### FOR WINTER

Ventilation can be controlled by opening the bottom unit of the storm sash and lowering the top sash. Air will flow up around the meeting rail and top section of the upper sash.



Typical combination steel sash with screen and storm sash provide year 'round comfort. Various combinations of window adjustment may be made to provide storm protection and adequate ventilation at all times

#### (Continued from page 183)

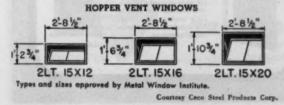
Some manufacturers are producing what amounts to triple-hung units, which have a standard double-hung window plus a double-hung storm sash plus a one-half screen unit—all built into the same prefabricated frame, complete with weather stripping and balances, or pressure weather stripping for easy removal and cleaning of the sections. Ready for installation at time of construction, these units simplify matters a great deal for the builder.

Storm sash for casement and the awning-type windows, as well as screens, are devised for handling and installation on the inside of the window. Rubber or other weather seal is usually provided around the edges, and storm sash frequently comes with built-in ventilator lights so that winter ventilation may be controlled as desired.

#### **Basement and Utility Windows**

Wood or metal basement and utility window units, set up and ready to install, come with or without storm sash and screen, and are normally provided with frames, hardware and accessories in one package from the manufacturer. Frames are grooved to hold mortar, and wood units are chemically treated to resist rot and insects. Screen and storm sash are fitted to fasten from the inside.

One type of basement window is fitted with reversible sash which may be hung to open either at top or bottom. Removable sash may be reversed in a matter of seconds.



APRIL 1953

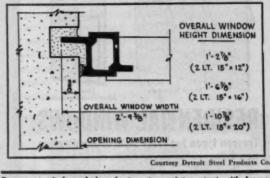
### hasement and utility windows

### INSTALLING

### BASEMENT WINDOWS

Basement Windows are especially designed to fit openings in walls of concrete blocks, as shown in sketches at right. Their convenient sizes also permit easy installation in all other types of construction. Detail below shows method of installation in concrete block.

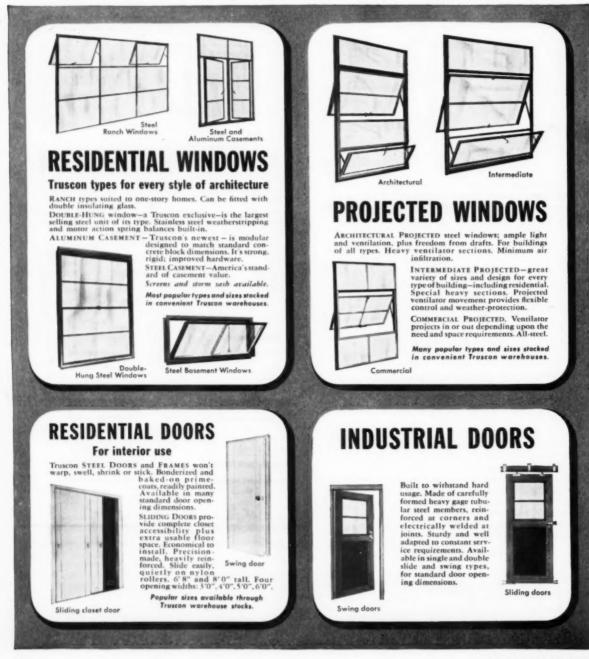




Basement windows below feature two-point contact with frame, anchoring fins, jamb shields, and adjustability of opening

Utility window units are made to fit modular principles, come already glazed, with top vent opening inward; an outer screen across this opening is built in to keep out insects and vermin. All units are easy to operate, lock securely, and have few moving parts to get out of order. They are ideal for barns, farm and storage buildings. (Continued on page 189

# Who but TRUSCON can offen you THE MOST COMPLETE LINE OF





## **METAL BUILDING PRODUCTS!**

• Here are products you need on every construction job from the moment the first shovel of earth is turned. All are manufactured by Truscon-world's largest fabricator of steel building products-and feature the quality and craftsmanship you've the right to expect from the leader.

For example, Truscon steel windows are Bonderized, and given a baked-on prime coat of high quality Bakelite-base paint. They can't rot, warp, shrink, swell or stick. Truscon steel doors and frames assure perfect fit and permanent, trouble-free operation. Mass production and fast, easy installation mean important on-the-job economies.

Check the advantages of *all* the items listed here. Then concentrate on Truscon as the source for your metal building products—for dependability, for responsibility, and for quality backed by a fifty-year reputation of outstanding service to the building industry. Detailed literature describing all Truscon products will be sent you upon request.

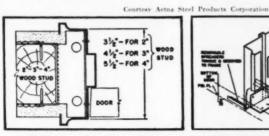


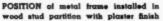


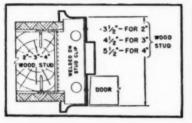
### how to install a metal door frame

Steel door frame arrives on the site assembled in one plece, with head, two sides of trim, anchor clips (or T-anchors, if the frame is to be installed in masonry walls), hinges, steel dust box, and brass strike spot welded to the frame.

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







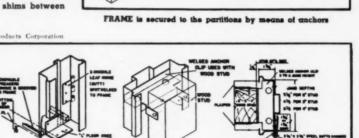
#### POSITION of frame in wood stud partitions with dry wall finish. Where thin boards are used, it may be necessary to place shims between stud and board

### METAL DOORS

(Continued from page 185) Metal doors of steel, bronze, aluminum, and a wide range of alloys are available in models which fit into both exterior and interior design. Hollow metal doors are easy to install, cannot sag, splinter, warp, or

SWING

8

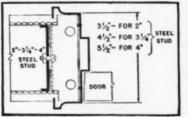


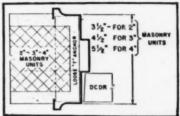
WEL OFO O

AILING FLANGE BENT FOR APPLICATION

FRAME anchored to floor by knees. left. Center and right, jamb clips secured to studs

DOORS





#### WHEN metal frames are used in steel stud partitions. Tranchors may be bolled, welded or securely tied for proper anchorage. See illustration of anchors, abave left

swell, and will give good performance for long periods of time.

Other types include metal-covered and tubular construction, and many metal doors are used in combination with large glass areas. Many manufacturers furnish sliding as well as conventional types of metal doors,

SLIDE

IN masonry partitions. Astna provides Tanchors for proper bond between frame and partition. T-anchors should be placed at masonry joints, three per jamb

and most of these doors come complete with frame and instructions for installation. As with metal windows, certain precautions must be taken to avoid scratches, to use a second coat of paint on steel doors and frames (unless a baked-on synthetic paint is used) and to avoid staining the **metal**.

TYPES& SIZES - SWING DOOR & FRAME - SMALL OP'S	TYPES & SIZES - SWING DOOR -LARGE OPG TYPES AND SIZES - SLIDE DOOR
2868M 2868G 2868G2 5468M 5468G 5468G2	
2870M 2870G 2870G2 5470M 5470G 5470G	4000C6 8080C6 50100C8 100100C8 307023L 4080C8L 6080C63L 50100C63L 50100C63L 00100C63L STOR23L 607023L 4080C63L 6080C63L 50100C63L 50100C63L 00100C63L STOR23L FRAMES ONLY FRAMES ARE NOT FURNISHED FOR STRUCTUR- TURAL FRAMES ONLY FRAMES ARE NOT FURNISHED ALL SLIDE TYPE DOORS TO 507 LIOD"HIGH FURNISHED FOR STRUCTUR- TURAL FRAMES ONLY FRAMES ARE NOT FURNISHED ALL FRAMES ONLY FRAMES ARE NOT FURNISHED OR MACHINED BY SUPPLEA
3070M 3070G 3070G2 6070M 6070 G 6070G2	THE COMPLETE LINE OF HARDWARE FOR DOOR HARDWARE; HAS & STAFLE (FOR FADLOCK) TYPES ABOVE IS LISTED BELOW PARTICULAR PIECES OF HARDWARE FOR EACH INDIVIDUAL DOOR MUST BE SPECIFIED (NOTE-MORTISE LOCKS NOT FURNISHED FOR THESE DOORS) FOR THESE DOORS) TROLLEY & CLEVIS DOOR FULLS
	CHAIN BOLT (DOUBLE DOOR ONLY) FOOT BOLT (DOUBLE DOOR ONLY) BUTTS (2 PAIR PER LEAF) TITS TITS TITS TITS TITS
3870M 3870G 3870G4 7470 M 7470 G 7470G4 SWING DOORS 6'8'S'O' HIGH FURNISHED STANDARD WITH PRESSED METAL FRAMES MACHINED FOR DOORS & HARDWARE, MAY ALSO BE INSTALLED IN STRUCTURAL, FRAMES IF DESKED BUT SUCH FRAMES	L.M. SWING IN DOUBLE SWING IN THE FIRST DIGITS INDICATE NOMINAL DOOR SIZE, LETTER WINDICATES DOUBLE SWING OUT DOUBLE SWING OUT DOUBLE SWING OUT DOUBLE SWING OUT
ARE TO BE FURNISHED AND MACHINED BY OTHERS. THE COMERTE LIKE OF MADDARE FOR DOOR TYPES ABOVE IS VIDUAL DOOR MUST BE SPECIFICD. ES REGUIRED FOR EACH MOD- HARDWARE. MORTISE TYPE LOCKS & STRIKES (ACH-HT REY OR CYLINGER MASTER-REYED IF DESIRED). CHAIN BOLT (DOUBLE DOOR OHLY)	THE ANNING N KEY SIGE SOUTH SET OF THE S
FOOT BOLT (DOUBLE DOOR OHLY) Push & Pyll Platts Butts (16 pair Per Leaf) Door (Archs Door, Stops	R H SUBS
APRIL 1953	18



GET THE FACTS on the Amazing

Fleetlite Aluminum WINDOWS

#### Wood Doors

Wood doors are made of many species, including softwoods, hardwoods, plywood, fir, Ponderosa pine, and in a variety of types of construction including flush, paneled, and in combination with glass inserts or panels.

Exterior doors for both home and commercial entrances are frequently heavier and more ornate than many interior doors. Both Ponderosa pine and Douglas fir doors come in a wide variety of sizes and designs, for both interior and exterior applications. The Fir Door Institute has set standards and specifications for the trade in the fir door group, and doors are manufactured to close standards for alignment, balance, and function.

Popular among more recent developments has been the hollow core flush door made up of interior sections in grid or arch or ribbed form with an outer layer of plywood or other laminated material. The engineered interior construction is said to give such doors unusual strength and rigidity, while the exterior finishes are usually very fine and susceptible of adaptation to many types of interior design

A substantial number of wood doors have been made with fireproofing treatment, the wood being impregnated with fire-resistant chemicals. This increases the weight of the doors about 30 per cent, and several such doors have been made to pass the one-hour fire exposure test of the underwriters' laboratories.

#### Glass Doors

Glass doors for both exterior and interior applications follow the trend in modern design toward the use of larger glass areas in walls of both commercial and residential buildings. In commercial buildings, glass doors have come into common use for stores. In residential buildings glass doors are useful as a design feature creating a spacious appearance while affording separation; for example, keeping kitchen odors from the rest of the house, or preventing the colder air in enclosed porch from entering the rest of the living space.

Some glass door installations utilize stainless steel frames and fittings. but most use aluminum extrusions reinforced with structural steel. Because of the relatively great weight of these doors, special care must be taken to follow the manufacturer's instructions, so that the doors hang true and operate correctly, with door



GLASS DOORS for stores and public buildings readily combine with other treatments in the modern manner

frames plumb and in proper alignment. Special glass with as much as four times the strength of ordinary plate glass is employed to make possible large doors which have no supporting cross-pieces.

#### **Combination Doors**

In addition to doors which combine wood and metal, wood and glass, metal and glass in various ways, a number of manufacturers who produce combination screen and storm scash also produce combination screen and storm doors. Door and insert units are available both in wood and metal, in a wide range of stock sizes. They come equipped with interchangeable inserts for screening or storm glass.

### Cabinet and Cupboard Doors

Cabinets and cupboards offer an opportunity for the builder who operates his own millwork department. He can fabricate suitable cabinet units ready for installation. There are, however, a large number of companies which provide a full range of metal and wood doors, both of the hinged and sliding types, for cabinet and cupboard applications.

Sliding doors for wardrobe cabinets have become increasingly popular, especially since high construction costs have cut bedroom space to the point where sliding doors in thin wall partitions make for a real space-saving in the room. Decorative effects may be obtained by using flush types or panel types.

### Special Types

Louvred doors have become popular in warm climates for entrance installations, and in colder climates for interior uses. Louvres may be of glass, wood or metal, and doors are

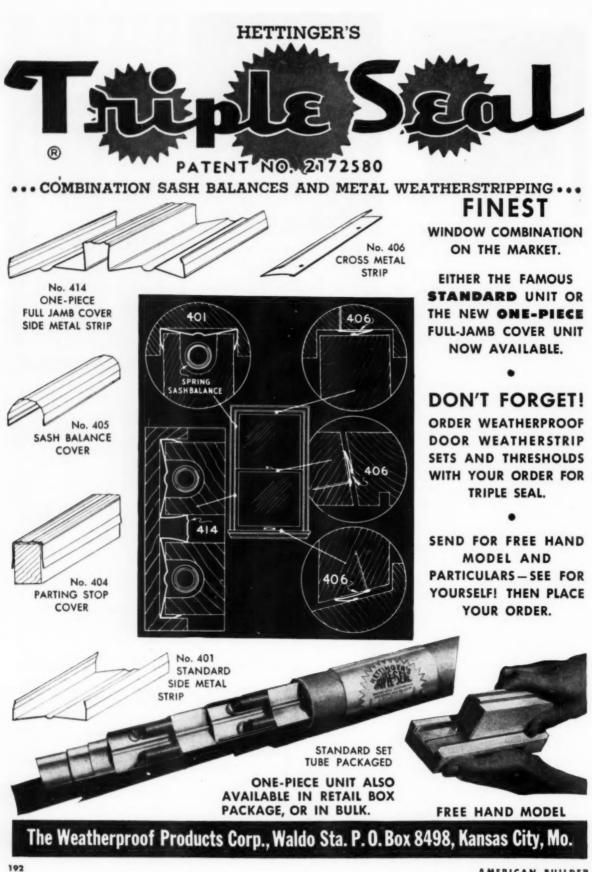
(Continued on page 195) APRIL 1953



HERE'S WHY PELLA WOOD CASEMENTS ARE EASY TO INSTALL . . . When received on the job, they are simply set into rough wall openings, caulked and secured in place by steel interlocking fins. Pella Wood Casements are completely assembled and prefited at the factory — cut installation costs to a minimum. Stock-size units can be combined into hundreds of customlike effects.

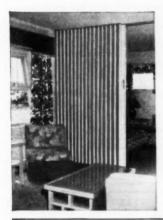






### SPACE SAVERS ... COST SHAVERS ... SALES BUILDERS "MODERNFOLD" Doors Let you offer customers More for Less!

"Modernfold" Doors fold rather than swing, stack neatly against the door jamb when not in use. In place of conventional doors they permit full use of valuable floor and wall space ordinarily lost to door swing. Used as a "movable wall" as shown below, a "Modernfold" door gives homes an "extra" room without permanent or inconvenient loss of living space. You can make rooms do double duty, speed sales, with "Modernfold" doors.



### RUGGED, DEPENDABLE, EASY TO MAINTAIN

Frame: Steel, patented box construction, double-strength hinges at both top and bottom: smooth accordion-like action, assured rigidity. (Unusually tall doors equipped with extra hinges.)

Covering: Heavy cotton, vinyl impregnated. Flame resistant, withstands flexing and abrasion. Resists peeling, chipping, cracking and fading. Washes with soap and water. Available in 23 colors.

12" 12'4" 13'/2" 14'4" 6'44" 7'/4" 8'/4" 9'44" 9'44" 10'/2" 11'/4

12 234

161/2"



Sizes: Wide Lengt 2' 6" 3' 0" 4' 0" 6' 8½" 6' 8½" 6' 8½" x ×× 4' 0" size in "rolling post" only. Doors may be used as pairs.



Latest innovations in design and production techniques enable the makers of "Modernfold" doors to makers of "Modernfold" doors to offer "Spacemaster"—a quality folding door at a price that actu-ally makes per opening cost less than that of conventional doors. Vinyl coated fabric cover, steel frame, coated fabric cover, steel frame, patented box construction hinges. In "Decorator Gray," a neutral color that blends perfectly with any color scheme. Available through lumber and building supply dealers. Ask your "Modernfold" distributor where you can get "Spacemaster" folding doors. Or clip coupon.





Any two doors listed above may be combined as a Custom-built doors available up to 20 ft. high, 60 ft. Can be furnished for curved installations, and with mec

### TIME-SAVING, LABOR-SAVING INSTALLATION



Sten 2. Screw in jamb



Step 1. Slide head track onto trolleys, raise door to standing position, fas-ten it in place.

clips, attach jamb post to them. No planing or fitting necessary.

Step 3. lob is done! No hardware to install. No painting or finishing required.

Look in your city classified directory-under "doors" -for the name of our installing distributor

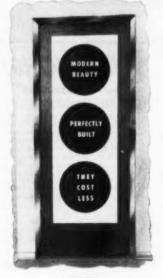
NEW CASTLE PRODUCTS	Sold and
NEW CASTLE, INDIANA In Conada: "Modernfold" Deers, 1315 Greene Ave., Montreal	
The doors that fold	New ( P. O. )
like an accordion	Gentle
modernfold	
D OTO R S-	Name.
by NEW CASTLE	Addre
COPYRIGHTED NEW CASTLE PRODUCTS 1953	City

#### Serviced Nationally

	Castle P Box 50			le, Ind	iana				
Gentl	emen:								
D Pl	ease sen	d me f	ull de	ails of	"Mo	dernfo	ld"	doo	rs
	ease sen	d me f	all det	ails on	"Spa	cemast	25.	doo	rs
Name	•••••								••
Addr	ess								
City				ounty.		.State.			

APRIL 1953

### De Luxe METAL DOOR JAMB



PATENTED

### OUR METHOD SAVES TIME AND LABOR COST LEAVE THE DOOR AS IS AND ADJUST THE JAMB TO FIT THE DOOR

#### (No Welding)

Nail on metal type jamb made in 3 sections for case in handling and fast installation



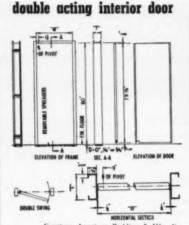
### **DELUXE JAMBS ARE PREFERRED:**

- By builder because it cuts his cost and at the same time gives him a much superior product.
- 2. By carpenter who installs jamb because it is easily handled and installed with no difficulty.
- By plasterer because he can plaster flush with the jamb casier than any other metal jamb and because plaster will not crack around jamb. (See illustration)
- 4. By painter because jamb and wall can be painted at some time with some paint.
- 5. By home buyer because it is durable, easy to maintain, trim, neat and modernly beautiful. Also manufacturers of sliding metal door jamb and hardware, double-acting jamb, open casing metal door jambs, and a complete line of metal door jambs.

A PRODUCT OF



194



Courtesy American Welding & Mfg. Co. Details of installation of double acting steel interior door, showing rough opening dimensions required

(Continued from page 191) available in a wide range of materials to fit into design requirements. The jalousie-type of door claims the advantages of controlled ventilation with privacy.

Sliding doors either hung on a track with rollers overhead or resting on rollers at the bottom, are often used by the builder to gain space or add convenience to the home. They are particularly useful in connection with entrances to basement or attic stairs, in hallways where swinging doors would be in the way, and between rooms which can be thrown together for added spaciousness by opening the doors. These are frequently used in pairs like double doors. Sliding doors for closets are also available from a number of manufacturers



SLIDING WARDROBE doors permit easier access to contents of closet and also save floor space

Folding doors of hinged construction are largely being supplanted in new construction with flexible folding doors of several types. These are either vinyl-covered plastic units mounted in steel frames which come ready to install or strong, lightweight wood slat material woven together and suspended from an overhead track. They operate easily, and



... than non-weatherstripped windows by actual test of weatherstrip manufactured by members of the Weatherstrip Research Institute. (University of Minnesota Institute of Technology Testing Laboratory.) Effectiveness is greater than 6 for average or poorly fitted windows.

### Reduction in Air Infiltration Through Windows Due to Weatherstripping (Unlocked—no storm sash)

Type of Fit	Par Int cfh/ft.			
	Weather- stripped	Non- Weather- stripped	Weatherstrip Effectiveness†	
Well	14.2	61	4.30	
Average	16.7	104	6.24	
Poorly	23.8	163	6.85	

\*At a pressure of 0.20 inch of water (20.4 mph wind velocity).
†Ratio of non-weatherstripped to weatherstripped par-influction.

The above facts, plus the complete story on weatherstripping is presented in Bulletin No. 35—"Air Infiltration Through Weatherstripped and Non-Weatherstripped Windows," published by the University of Minnesota, Institute of Technology. The facts showing the economic value of weatherstrip are based on over-all research of climatic conditions in 12 selected cities in the U.S. covering a full range of weather conditions.

anterna)	×
WEATHE	RSTRIP Research
	INSTITUTE
	OFFICE OF THE SECRETARY
	BOX 101 - RIVERSIDE, ILLINOIS DEPT. AB-43
Please send my illustrated Bullet	FREE Copy of the 47 page, in No. 35.
ADDRESS	



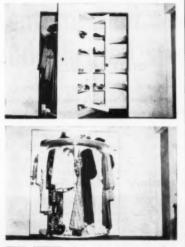
FLEXIBLE DOORS and room dividers are used like standard doors. No trim is needed. Usually they hang from ceiling

add a note of vertical corrugation which works into other design elements in the room in a pleasing manner. Builders estimate that folding doors take from 20 to 50 per cent of the space needed by ordinary doors.

Fire-resistant doors for special purposes in small commercial buildings are also found useful in home construction in the custom-built field. These may be of metal or metalcovered wood, and in some instances are of chemically-treated wood, Various manufacturers provide a wide range of models and sizes which have passed the underwriters' one-hour fire-rating test.

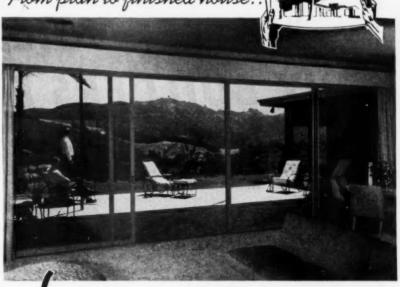
### Roll-Up Doors

Rolling doors for garage entrances or service entrances include roll-up type of grilles used also in porch and patio treatments in modern home construction. Rolling doors are neat in appearance, easy to operate, save space, give weather protection, burglar protection, and fire protection if treated with fire-resistant material. They can be operated automatically if desired.



TWO VIEWS of revolving unit used in small home closet construction. All stored material is easily reached

From plan to finished house.



# Save time, labor and money!

Slide-View makes homes more livable and saleable too. Here are important reasons why building contractors prefer Slide-View-

Strong sections of bonderized 14-gauge steel delivered to job in a complete pre-assembled package ready for easy, fast installation.

**2** Costly time-wasting fitting and blocking eliminated by flat head and reinforced extra-strong threshold.

**3** Glazing costs held down to a minimum by deep rabbets and metal bead.

4 All standard Slide-View types fall within stud thickness.

5 All units are fully adjustable and require no afterinstallation service.

On every house where you install Slide-View, you build a home of superior beauty, comfort and lasting value.



There is an authorized Slide-View Dealer near you to serve you. Write today for complete specifications and installation details.

STEEL DOOR AND WINDOW CO.

521 NORTH LA CIENEGA BOULEVARD, LOS ANGELES 48, CALIFORNIA

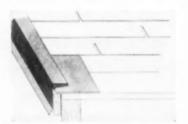
### WHAT YOU SAW at our Chicago Exhibit IS WHY WE SAY

## "BETTER BUILDERS BUY BUILDERS FRAMES"

WE SINCERELY THANK the 6,000 Builders, Distributors, Dealers and Architects who visited our Booth at the National Home Builder's Exposition in Chicago, and saw for themselves the advantages of our KD (knocked-down) Window and Door Frames. The enthusiastic acceptance of our products was magnificent. If you were not there, write us for details.



Through-the-wall Window Frames made from GALVANITE STEEL, ALU-MINUM OR STAINLESS STEEL to fit all standard steel or aluminum casement windows.



"BETTER

#### **BUILDERS ADVANTAGES**

CONVENIENT INSTALLATION before or after wall is raised. Drive a dozen nails and you are through.

NO ADDITIONAL LABOR. BUILDERS FRAMES are complete through-the-wall construction. No trim required inside or outside.

SAVE PAINT, only one coat needed.

SAVE TIME, many hours per house, many days per project.

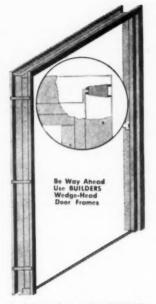
BUILDERS FRAMES were designed for Builders, after exhaustive studies with Builders, Architects and Dealers, to help you meet the requirements of your customers—HOME BUYERS.

Our Window and Door Frames are shipped knocked-down to your warehouse, or can be shipped assembled direct to your job when specified. Home Buyers are enthusiastic about the fact that Builders Window Frames are absolutely water-proof in all corners.

### DISTRIBUTOR ADVANTAGES

MINIMUM SPACE required for warehousing.

NO LOST SALES due to wrong size in stock. NO DEAD INVENTORY. Small stock heads, sills and jambs make up into all standard sizes. BIG SAVINGS ON FREIGHT over assembled units. EASILY ASSEMBLED in your warehouse. YOU CAN RECOMMEND and satisfy your customers with BUILDERS FRAMES.



Steel Door Frames BEAUTIFUL IN DESIGN, Economical and Permanent.

### "STEEL SEAL" ROOF EDGING

Galvanized gable roof edging. Nail to decking, slide roofing into place. Protects barge board from rotting, prevents wind from getting under roofing. OTHER PRODUCTS

Steel and Aluminum Liners, Window Fins, Formed Lintels. Let us quote on your requirements for special window and door frames.

### Write For Catalog and Dealer's Name In Your Territory

### BUILDERS MANUFACTURING CO.

1514 Brown-Marx Building, Birmingham, Alabama

BUILDERS BUY BUILDERS FRAMES'

### PAINE DOORS the doorway to trouble-free service

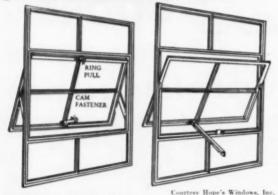
### Here's the interlocking, ventilated all wood core that provides unduplicated strength and stability

On the surface, flush hollow core doors may look much alike, but it's what's bencath the face that determines the service and satisfaction that you can expect. Here's where the superiority of Paine Rezo doors is most pronounced; for nowhere else will you find equal dimensional stability, nor such lightness in weight combined with great structural strength.

For these reasons architects and contractors everywhere have installed more than five million Paine Rezo doors in buildings of every type. No other hollow core door has been so widely endorsed, so thoroughly time-proved. Remember, when you decide on Paine Rezo doors, you specify a door that not only looks good, but is good all the way through. Write for an illustrated data bulletin.



### pivoted and projected windows

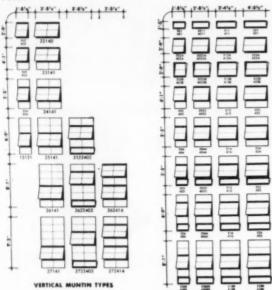


COMMERCIAL PROJECTED PIVOTED

Typical commercial projected window (left above) and pivoted window (right), showing basic construction features including operating devices

### **Pivoted and Projected Types**

Included in this category are awning windows with a hopper vent at the bottom which swings inward instead of outward; the heavy projected units; and the semi-protective pivoted types. With pivoted vents, the unit swings horizontally at the center instead of at the top, as in awning types, so that the vent projects outward and also inward at the same time. This allows windows to be kept open during rains; the projecting portion keeps the rain out, while the inner portion acts as a baffle to deflect air towards the ceiling. Units are available in wood, steel, solid bronze, or aluminum. They come with standard hardware and may be fitted with screens and in some cases with storm sash, particularly on the opening-out vents.



HORIZONTAL MUNTIN TYPES

P-A1 & P-A2 PROJECTED WINDOWS in the new AWMA standard sizes for residential, commerical, and monumental-type buildings. Dimensions are window opening dimensions. All vents shown projecting out may project in if all in same unit project alike. Vertical muntins may be added to 200 and 400 series windows if based on 20" or 24" bar centers. Fixed types are available for all sizes shown

Alumi

### **Combination Units**

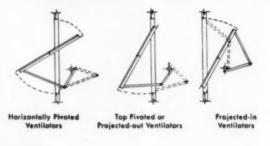
Combination screen and storm sash are available from a host of manufacturers, and are made in wood, aluminum, stainless steel, and other materials. Screens are furnished either full length or in half-length sections, wired with copper or aluminum cloth. Storm sash usually comes in two sections, making the combination unit a threepiece affair.

One manufacturer lists 20 stock sizes, and others make many more, as well as fabricating such units to order to fit existing windows of almost any structure. Metal units are sometimes built with a wood subframe, with steel or aluminum parts carefully finished and joined to the subframe.

### mechanical operators

### lever-arm operators

Lever-arm operators are used for rapid control of short runs of projected or pivoted ventilators. Lever arms on a rotating shaft running parallel to the windows are connected to the ventilators by suitable links attached to steel plates. Movement of the lever arms opens or closes the ventilators as the shaft is rotated. Windows are securely locked in any position.

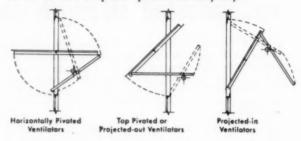


#### power

Power for lever-arm operators is furnished to the horizontal shaft by a worm driven segmental gear which may be operated from the floor by an endless chain or by a shaft provided with suitable miter gears and handwheel.

### rack-and-pinion operators

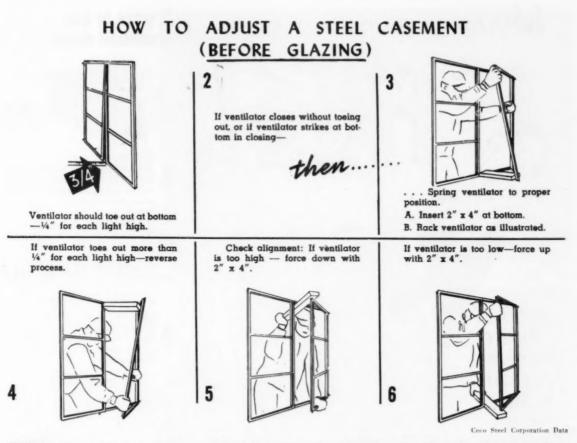
Rack-and-pinion operators are used to control long runs of projected or pivoted ventilators or for short runs of continuous windows. Pinions on a revolving shaft engage straight or curved toothed racks which are directly connected to suitable plates on ventilators. Curved racks are desirable where clearances are limited. Use rack-and-pinion operators for heavy duty.



#### power

Power for rack-and-pinion operators is furnished by a worm driven full gear operated from the floor by an endless chain or by a shaft with suitable miter gears and handwheel. Electric drive with remote control can be provided.

Ceco Steel Data



**STORING**—Steel residence casements should never be laid flat one on top of the other. Always place casements vertically, using two parallel planks as a base and lean one unit against the other.

Do not pile any other materials on top of the casements, and do not permit building tradesmen to use the casements as ladders or as supports for scatfolding. Store the hardware and other fittings in a dry place where they will be safe and protected from the weather.

FIELD PAINTING—For best results, steel casements should receive the first field coat of paint before erection. Surfaces to be painted must be clean, and no painting should be attempted if surfaces are covered with frost or moisture.

**ERECTING**—1. Any steel residence casement that is damaged should be put in good condition before using.

2. When shipped, all ventilators are held shut. Keep the ventilators securely in place until effection.

3. All rough openings should be plumbed and squared during construction and will vary in size according to space needed for interior finish. Each finished opening must be ¼" wider and¼" higher than the overall dimensions of the casement frames. This will permit installation without distortion.

4. The outside of the frame and the mullions should be buttered with mastic before the casement is placed in the rough opening. Application of mastic is not to be confused with caulking of the casement opening, which is an entirely separate operation. 5. If the casements are to be erected in wood construction, apply the screws so as not to distort the casement frames. Do not draw the screws tighter in one hole than in another.

6. If the job is of masonry or brick veneer construction, do not use the casement as a straight-edge for the brick, stone, concrete block or clay tile. Do not force the masonry units against the steel casement frame, as this will distort the casement and make weathering imperfect.

7. Where the ventilators extend to the head of the casement, a head drip is furnished loose when specified.

It should be applied before the casement is erected. This is accomplished by placing the head drip on the top edge of the casement frame and tapping lightly to seat it in place. No screws or bolts are required. Where the ventilators do not extend to the head of the casement, no head drip is necessary, because a drip is provided as an integral part of the transom bar.

8. After the casement is erected and as you install the inside trim, be sure that you allow  $\frac{3}{4}$ " clearance around the casement on the interior, so screens and storm windows may be installed.

9. The <sup>3</sup>4" clearance is needed at the sill for another reason, too—to provide room for the underscreen operator. You will get this <sup>3</sup>4" clearance if, in applying the inside trim, you bring the finished stool up flush against the bottom edge of the stool gauge on the casement. Then, when the underscreen operator is installed, it will give the appearance of resting on the stool.

10. After erection but before glazing, inspect the casements to see that all ventilators are weathered properly-that is. that the ventilator fits snugly when closed. It is difficult to weather the ventilator after glazing. Test the fit before installing hardware by pushing the ventilator closed gently. The top of the ventilator should touch first while the bottom of the ventilator extends 1/4" for each light high. Then a slight push on the bottom should bring the ventilator to bear evenly on the casement all around. Later, after you install the hardware, this top-to-bottom closing operation will be accomplished with the underscreen operator. Be sure all plaster and dirt are removed from the inside of the frame and do not attempt to force the ventilators closed when such conditions exist.

11. After glazing and painting, apply the hardware.

12. PUTTY—Steel window putty, especially prepared for outside use, must be used. Putty should spread easily and smoothly and should adhere to both steel and glass.

13. GLAZING—Spread putty over the glazing rabbet before setting the glass. Push the glass firmly into position so that putty fills all crevices and forms a uniform, watertight bearing surface. The back putty layer should be about 1/32" thick. Center glass in frame. Slip the glazing clip into place and apply the face putty.



5 ways to use accordion doors Flexible partitions between living areas add privacy when desired. create sense of space in limited areas when open Division between dining area and kitchen creates mealtime intimacy, can be opened to ease serving and cleaning-up Basement play areas screened off from furnace and utility area for convenience can be opened up for wash-line space and other utility functions Hospitals and institutions find added flexibility in patient care with folding door partitions between beds Flexible doors conceal closet and wardrobe storage walls and cupboard space without taking up valuable floor space AMERICAN BUILDER

## ideal control of light air temperature privacy

with



# lexalum.venetian blinds

Make your homes completely functional—with a completely functional window treatment. FLEXALUM blinds give light without glare, fresh air without drafts, comfortable room temperatures, and privacy without that shut-in feeling. And this most efficient of all window-coverings is also the most attractive, the most durable, and the easiest to clean.

#### The all-FLEXALUM blind gives you durability and lasting beauty:



Wipe-Clean Plastic Tapes and Cords A damp cloth wipes away the stubbornest stains. Tape won't shrink, stretch, fray or fade.



Aluminum Slats Spring-tempered to anap back rulerstraight even when bent to 90° angle. W on't rust, chip, crack, peel or change color,

Snap-Back



Insist on this Mark Look for the Flexalum "visible-invisible" trademark. It's your assurance of the top quality venetian blind.

Write for local sources and free file of venetian blind information—AIA File #35-P-3 Hunter Douglas Corp., 150 Broadway, New York 7, New York

APRIL 1953





### Now...RUSCO HORIZONTALLIDE Tubular Steel Windows!

New Addition to Prime Window Line Makes Ideal Treatment for Added Wall Space, Bedroom and Bathroom Privacy, Above Sinks, Etc.

The F. C. Russell Company has now applied the proven engineering principles of its widely-accepted verticalslide Prime Window to a new line of Horizontal Slide Windows. These Horizontal Slide Windows offer the same exclusive features and advantages. Frame and window members are of streamlined, rigid, tubular galvanized steel, bonderized and finished with baked-on outdoor enamel. They are supplied as completely finished assemblies and provide the same ease and speed of installation and convenience during construction.

Rusco Horizontal Slide Prime Windows ideally meet design and construction requirements for high window placement, such as in ranch type houses, where added usable wall space is desired, and in hard-to-reach places such as over sinks, bathtubs, etc. They assure greater ease of operation at shoulder-high or head levels.



APRIL 1953



### IT TAKES ONLY 20 MINUTES TO INSTALL A READY HUNG DOOR!

Yes, you can install 10 Ready Hung Doors in 1/2 a day, with nearly an hour to spare.

You save a lot of money when you do 25 to 40 hours work in less than 4 hours. In addition to direct labor cost savings, reduced man hours means reduced supervision cost, insurance cost, social security cost and accounting cost — because the job is finished as much as a week earlier, you save interest expense and close the sale sooner.

All these savings are yours because Ready Hung Doors are delivered to you with all the tedious work done - as it should be - on precision machinery and jig assembled on a high production assembly line. All you do is separate the halves of the two piece jamb. slip them back together in the opening and nail it to the wall. With nothing to saw, fit, chisel or plane you can't miss!

PATENT NO. 2489029

READY HUNG DOORS SAVE TIME-LABOR-MONEY WASTE - WORRY - SKILL and DO A BETTER JOB

WRITE FOR FOLDER 1451-36 cartoons in this folder (from our recent advertising campaign in this magazine) show 36 REASONS WHY READY HUNG DOORS SAVE. You will want this folder for reference-in addition, you will find the cartoons amusing.

> HOUSTON, TEXAS Ready Hung Door Mfg. Co. P. O. Box 124

MEMPHIS, TENN.

SOLD THROUGH LUMBER DEALERS write the mill nearest you.

BIRMINGHAM, ALA. National Woodworks, 2201 29th Ave. North BURBANK, CALIF. Ready Hung Door Mfg. Co. 200 South Victory Blvd. CHARLOTTE, N. CARO. National Door Unit Corp. 123 E. Griffith Street ------

DALLAS, TEXAS Ready Hung Door Mfg. Corp. 1113 Dragon DENVER, COLORADO Prefabricators, Incorporated P. O. Box 5222 GRAND RAPIDS, MICH. Haskelite Manufacturing Corp. 701 Ann St., NW

Ready Hung Door Mfg. Corp. 911 Rayner NEW YORK, N. Y. Bailey-Whaten Company 17 Park Ave., W. Orange, N. J. READY HUNG DOOR CORP., Fort Worth 2, Texas

SAN ANTONIO, TEXAS Ready Hung Door Mfg. Corp. 200 Seguin Street SIOUX FALLS, S. DAK.

TORONTO, CANADA C. Lloyd & Son Limited 1214 Lawrence St., N. Park P. O., Ont.



### Saran Plastic Screening

Saran screening is receiving current attention for use in windows and doors of residential, agricultural and industrial buildings. Special installations have varied from protective coverings on greenhouses to placing over children's play pens.

Highly resistant to damage and abuse, it has high resiliency. Rustproof, stainproof qualities make it possible for screening to be left on windows, doors and porches all year round. It needs no protective painting. The mesh is easily washed with a damp cloth. It is also non-inflammable. This ease of maintenance reduces the expense in upkeen.

Saran screen cloth is very easy to handle. It can be splined into metal frames and tacked, stapled or splined into wood frames. A plastic spline which may be rolled into place either with a hand or an electrically driven wheel is available to screen manufacturers.

Saran screening is woven from a monofilament which is extruded powder. cooled from saran stretched, inspected, spooled and woven into screen cloth. The saran powder is made by the Dow Chemical Company. It is a thermoplastic. derived from petroleum and brine as its basic raw materials. These are converted into vinylidene chloride and polymerized, generally with vinyl chloride. Saran is a copolymer of approximately 90% vinylidene chloride and 10% vinyl chloride.

Woven of a filament having a diameter of 0.015", the screening is produced in the commercial standard mesh. 18 x 14. This mesh is available in all standard widths. 24", 26", 28", 30", 32", 34", 36". 42", and 60". The standard colors are gray, an aluminum shade, and a dark green. A fine mesh screen. 20 x 20 mesh with 0.012" filament is available in grav only, in 26". 28". 30", and 36" widths.

dling and to assure that

every piece reaches the

job undamaged, ready

for installation.

2 SO

Framingham, Mass.

MILLWORK OF QUALITY SINCE 1719



### TO GIVE YOU THE ADVANTAGES OF LOW COST MODERN CONSTRUCTION ....

The low initial cost of Ra-Tox Folding Doors plus the savings made by the total elimination or simplifying of wall construction . . . add up to impressive total savings on every house you build.

Make all interior door openings except bathroom with simple plaster finish and install Ra-Tox Folding Doors. Eliminate costly corner clothes closets by installing room high Ra-Tox Doors on cornercurve track, Ra-Tox Doors are supplied complete, in wide choice of colors or natural wood finish, with all hardware and wood track, ready to install.



### HANDLE-LATCH SET

Complete new unit, an exclusive Ro-Tox Door feature, designed by Walter Dorwin Teague Associates.

CURVED WOOD TRACK Sensational, exclusive Ra-Tox Door feature, Joins with straight track for room high door installation to complete wardrobe or clothes closet.

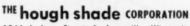


VENTILATION . . . open slat design of woven basswood door fabric lets air pass through . important in heating, air conditioning, and clothes closet ventilation.

SAVE ROOM SPACE ... small rooms are no longer a problem. Ra-Tox Folding Doors save room space wasted by "swing" of standard hinged doors.

ALL SIZES . . . to meet any need from standard door sizes up to room high doors or room dividers.

For Complete Information write for



1044 Jackson Street . Janesville, Wisconsin



FIREPLACE MANTELS COLONIAL DOOR ENTRANCES DOOR BLINDS WINDOW BLINDS WOOD LOUVRES

GABLE SASH

BASEMENT WINDOW UNITS



CONVENIENCE and PROFIT



APRIL 1953

**Bulletin 706** 

# There is a Getty operator for every casement window – –



GETTY OPERATOR 4703W. For any wood casement. Unexcelled in construction and functional design. Houses a powerful internal gear—an exclusive Getty feature. GETTY OPERATOR 4703AF. A de luxe operator for all metal casements. Superior because of its powerful internal gear - an exclusive Getty feature.

GETTY OPERATOR 4715. For

wood casements. Economically priced and well constructed with an external gear and angle

GETTY OPERATOR 4706. A popular priced operator for metal casements. Precision made, externally geared, angle driven. Oľ

GETTY OPERATOR 4700. Heavy duty, reversible, for wood casements. A horizontal worm-and-gear operator—not handed.

# in new construction or as

0

GETT

drive.

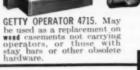
# replacement \*

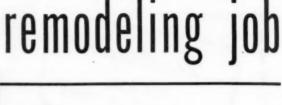
GETTY OPERATOR 4706H. The only operator specially drilled to accommodate nearly all metai casements, regardless of the type of operator being replaced.

# operators

on any

metal





3348 NORTH 10TH STREET

Getty operators are found on more casement windows than all other operators combined.

& CO., Inc. PHILADELPHIA 40, PA.

Canadian Representative: A. N. Ormsby Co., 23 Scott Street, Toronto, Ontario Sylvis House, Burbank, Calif. Contractor and Designer: Ed. Sylvis, Burbank, Calif.

### **Lupton Windows**

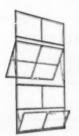
Steel or Aluminum



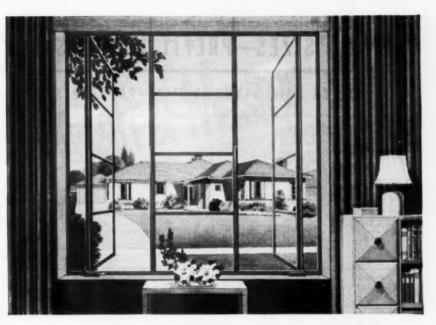








APRIL 1953



## One . . . or a houseful

Whether your contract calls for remodeling a room or building an entire house, you'll increase customer good will when you install Lupton Metal Casements. Here are windows that will not warp, shrink, swell or rattle . . . that offer a lifetime of trouble-free service. They open and close quickly and easily ... can be cleaned on both sides from within the room . . . blend with any type of architecture.

Add Lupton Metal Windows to the list of quality materials you install. They are available from coast to coast for residences, schools, hospitals, commercial and industrial buildings, in steel or aluminum. First cost is moderate, upkeep amazingly low. Install Lupton Metal Windows for tops in beauty — tops in low maintenance — tops in long-life.

Lupton sales offices are ready to give you full information. Representatives are usually listed in the Classified Section of Telephone Directories under "Windows — Metal" or "Sash-Steel". Write, wire or phone, you'll get prompt attention.

MICHAEL FLYNN MANUFACTURING COMPANY 700 East Godfrey Avenue, Philadelphia 24, Penna. Member of the Steel Window Institute and Aluminum Window Manufacturery' Association



### OPENING SIZES-PREFIT LAYOUTS and GLASS SIZES

					Patt	999/ 7	51 121/2"	St 129/
Prefit Face Measurements	Top Rail Bottom Rail Vertical Bar Herizental Bar	· · · · · · · · · · · · · · · · · · ·			Stiles. Top Rail. Bottom Rail. Vertical Bar. Muntin. Check Rail.		St.         121/32           T.R.         121/32"           B.R.         2 3/4"           V.B.         3/6"           Mun.         3/6"           C.R.         1 3/2"	57
Windows are made 1/g <sup>a</sup> neurowar and 1/g <sup>a</sup> blocher than window epsning sizes shown below	2 11.	Top 3 Lt. W.	Top 4 Lt. W.	4 Lt. H.	Top 6 Lt.	Top 8 Lt.	12 Lt.	16 Lf.
1-8x3- 2	16x16			16x 734				
3-10	20			93/4				
4- 6	24		******	1134				
2-0x2-10	20x14	6 1/2×14		20x6¾	6 1/2 x 7			
3- 2	16	16		73/4	8		6 <sup>21</sup> /2x 8	
3- 6	18	18		8 3/4	9			******
3-10	20	20	******	934	10		10	
4-2	22	22		103/4	12		12	
		24			13		13	
4-10	26	28		1234	14	******	14	
2-4x2-10	24x14	72%ax14		24x 63/4	727/28 7			
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3-10	20	20		93/4	10		10	
4- 2	22	22		103/4	11		11	
4- 6	24	24		113/4	12		12	
4-10	26	26		123/4	13		13	
5-2	28	28	******	13 3/4	14		14	
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3- 6	18	18	******	8 3/4	9			
3-10	20	20		93/4	10		911/2×10	
4- 2	22			103/4				
4- 6	24	24	* * * * * * *	113/4	12		12	
4-10	26	28	******	123/4	14		14	
3-0x2-10	32x14		713/16×14	32x 634		713/16× 7		
3-0x2-10	20		20	93/4		10		713/14×10
4- 6	24		24	1134		12		12
4-10	26		26	123/4		13		
5- 2	28		28	1334		14		14
3-4x4- 6	36x24		813/14x24	36x1134		813/16×12		813/16×12
4-10	26		26	1234		13		1:
5- 2	28		28	133/4		14		1.
3-8x4- 6	40x24		913/16x24	40x113/4		913/16x12		913/16x12
5-2	28		28	133/4		14		1.

### OTHER DESIGNS and SIZES of STOCK WINDOWS and SASH AVAILABLE

No attempt has been made in this catalogue to illustrate or list all of the designs and sizes of Ponderosa Pine Stock Windows and Sash that are available. On this and the following page are shown those that are most popular. For a complete listing of all standard sizes and designs, including one light sash, transoms and porch sash, write The National Woodwork Manufacturers Association.

### how to install plastics screening



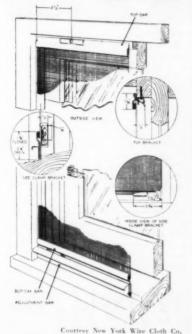
First step in attaching plastic saran screening is to start at top corners to hold material in place. Nail tacks or staples about  $1\frac{1}{2}$  apart



Chicopee Mfg. Co. Courtess

Sides of screening are tacked next, folding under cut edges to make about a 1/2" hem. Molding strips are then nailed over hem and selvage edges

### tension screen installation



Let this New Star brighten your building picture! preserved with Woodlife fully weatherstrippe fully balanced precision milled removable sash The MALT-A-MASTER is the newest, brightest star in the building field. Architects and builders who specify MALT-A-MASTER



Supreme Quality Since 1901

MEMBER PONDEROSA PINE WOODWORK ASSN., AND N.W.M.A.

window units find they have a new star salesman . . . for home buyers want the many new advantages that the MALT-A-MASTER now offers.

Remember, the great, new MALT-A-MASTER window unit is fully balanced . . . fully weatherstripped... and has removable sash. So hitch your 1953 building plans to this star performer-the MALT-A-MASTER.

### the BONDERIZED STEEL WINDOWS OF

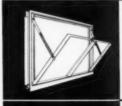
tra Value

The extra value in Vento Bonderized Residence Casement Windows includes: 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. This provides greater rigidity and stronger ventilators.

ALSO Vento "Champion" Barred Basement Windows; Vento "Champion" Utility and Barn Windows; Vente "Thrifty" Utility and Special Type Windows.

Write us for full information and name of nearest distributor.

Some desirable territories are open for representatives and distributors. Write for particulars.





NEW IMPROVED VENTO BONDERIZED "CHAMPION" BASEMENT WINDOWS give extra value because of their 14-gauge electrically welded frame, fins welded to jamb for quick installation and double contact with leak-proof watershed sill. A plus value incorporates a

VENTO "THRIFTY" BONDERIZED BASE-MENT WINDOWS give extra value because they are a real economy window especially designed for lower cost housing. Two position ventilation and easy sash removal. Fin flanges at jambs for quick installation. Three sizes, putty type only.

redesigned latch which assures positive opera-

tion under all conditions.

VENTO FORMED STEEL LINTELS give extra value because they permit the use of standard 8" blocks over door and window openings. Of 10-gauge steel, with stiffening crimp in center. Also formed steel lintels for brick constructions.

STEEL PRODUCTS CO., INC. 247 Colorado Ave., Buffalo 15, N.Y.

# Raising higher the recognized superiority of Aluminum Windows...

Rustproof • No Painting • Non-Staining Easily Installed • Trouble-Free • Permanently Beautiful!

# REYNOLDS ALUMINUM RESIDENTIAL WINDOWS

#### CASEMENT, FIXED AND PICTURE WINDOWS

with welded joints for greater strength and weather-tightness...carefully assembled from Reynolds own extruded shapes...outstanding for high satin finish. Protectively packaged two to a carton. Complete accessories include Storm Sash and Screens.

#### DOUBLE-HUNG WINDOWS

Extra-heavy depth . . . stainless steel locks and dustguards . . fully weather-stripped. Precision balances (easily accessible tape balances or adjustable spiral balances). Supplied unglazed or factory-glazed with neo-prene. Shipped ready to install.





## AWNING

Featuring quick, positive closing and cross-lap weather-stripping in a superbly engineered version of this popular window type. Roto-operator opens bottom vent first. Full-open vents deflect both drafts and rain.

Write for catalog showing all types and sizes. Reynolds Metals Company, Building Products Division, 2003 South Ninth Street, Louisville 1, Kentucky.

Military needs for aluminum limit supply, but Reynolds is rapidly expanding primary capacity. Check your supplier.



# **EVERYONE'S** SWINGING TD DURALLS

Give customers extra luxury, give yourself extra profits . . . with Duralls. These screens save expensive on-thejob costs, cost less to buy. Customers love 'em . . . here's why:

NO LADDERS, HAULING, JUGGLING Lightweight Durall Tension Screens snap on from inside, seal securely, never need paint...roll up for storage!

#### INSIDE JOB

No ladders ... simply unroll Duralls, snap into place from inside, easy as a shade.

#### STORE IN A DRAWER

Duralls roll up, slip into handy dust-proof cartons ... spend the winter in a drawer or closet corner.

#### TROUBLE-FREE

Duralls get out of your way fast for window washing, tending flower boxes, etc. Just release two clamps, push Duralls free of windows. Reach even top panes without inconvenience.

#### NO UPKEEP

Get 'em and forget 'em. Duralls never need paint or weatherproofing, hold their shape in any climate. Pure aluminum, can't rust or stain your house ... outlast ordinary screens by years!

#### SAVE MONEY, TOO

Duralls actually cost less than ordinary screens ... no upkeep. Get yours now!

West of the Rockies, ask for RYLOCK









Make window washing a snap!

"I'm a little worried, Doctor, it happens every time I mention putting up the screens."



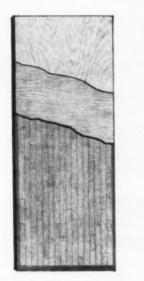
Over 4,000,000 Duralls now giving complete satisfaction in every state in the Union. If your hardware or lumber dealer cannot supply you write us for the name of your nearest Durall dealer. New York Wire Cloth Company, 63 Park Street, New Canaan, Conn.

DURALLS have famous Aldura 'Multi-Strand Reinforced, Flat-Edge Screening to Insure Grip-Seal . . Patented by New York Wire Cloth Company 212

¢,

# Roddiscraft FLUSH DOORS **BUILD LASTING CUSTOMER SATISFACTION**

## FOR OFFICE BUILDINGS, SCHOOLS, HOSPITALS, HOTELS, INSTITUTIONS, APARTMENT HOUSES



.

## **RODDISCRAFT SOLID CORE Flush Doors**

FIRE RESISTANT - withstand a regular fire test for over 40 minutes. Provide extra protection where needed in multiple and single dwelling units and in institutional type buildings.

SOUND RESISTANT - develope an average sound transmission loss of 30.9 decibels - only a little less than specially constructed sound retardant doors of much greater cost.

**RESISTANT TO ABUSE** — core, crossbandings and face veneers welded into a single unit with the inherent strength of true plywood construction.

WATERPROOF - for exterior and interior use. Phenolic resin glue provides two completely waterproof shields over entire area of the door on each side of the core.

STANDARD THICKNESS FACE VENEERS - provide greatest resistance to checking and abuse - permit better matching.

FOR RESIDENCES, MULTIPLE DWELLINGS AND OTHER INSTALLATIONS



## **RODDISCRAFT Housemart Hollow Core Doors**

Sturdy all wood construction offers these added advantages:

- 1. Extra strength
- 2. Greater resistance to distortion
- 3. Sure protection against core pattern showing through face veneers after finish is applied

Roddiscraft Housemart Hollow Core doors are generously made contain ample wood at side and top and bottom edges for trimming and the safe anchoring of hardware. Lock blocks on both sides offer a wide choice of hanging positions.

Priced for the residential market- quality built for lasting satisfaction.

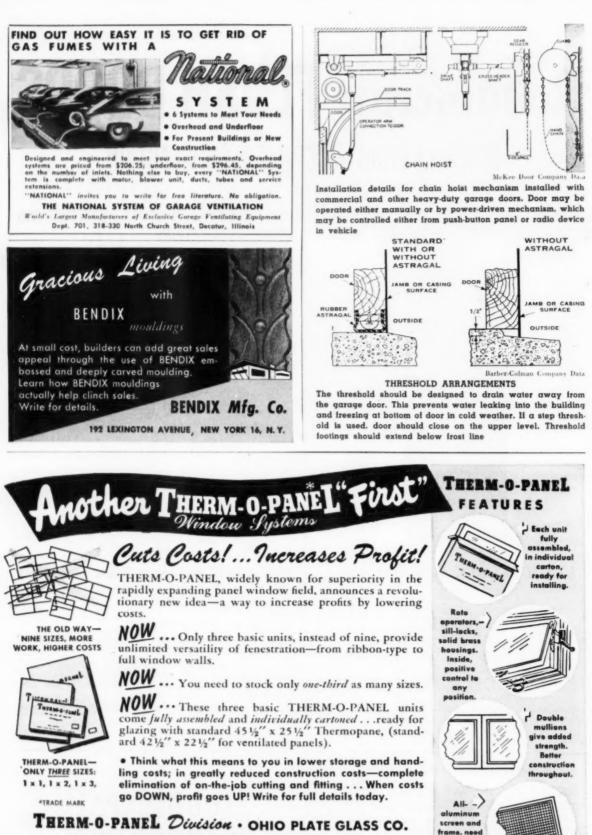
There is a Roddiscraft Door to meet every specification calling for wood doors. Call your Roddiscraft dealer for complete information.

## NATIONWIDE Buddiscraft WAREHOUSE SERVICE

Cambridge 39, Mass.		St.
Charlotte 6, N. C.		
Chicago 32, 111		
Cincinnati 4, Ohio		
Cleveland 4, Ohio		St.
Dallas 10, Texas		
Detroit 14, Mich. 11		
Houston 10, Texas		
Kansas City 3, Kan		
Los Angeles 58, Calif.,		
Louisville 10, Ky		
	San Leandro, (	Cal



APRIL 1953



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Branches in: DAYTON, FLINT, FORT WAYNE, DETROIT

never be removed.

# windows for all the world



## Here's real proof AUTO-LOK alone is changing "For Sale" to "SOLD"!

This huge new plant is the result of tremendous demand for Ludman AUTO-LOK Windows. In a few short years they have forged into national dominance, because only AUTO-LOK gives homeowners everything they've ever wanted in a window with none of the disadvantages they've put up with in the past. No wonder AUTO-LOK is the window women want most!

The "growing pains" of production schedules, which taxed old facilities to the limit, have been solved. TODAY, Ludman is in a position to continue unexcelled research, design and craftsmanship ... and to provide production without equal.

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MANUFACTURING ..

LUDN

WINDOWS

WOOD OR ALUMINUM

**Tightest Closing** 

dows Ever Made

Seal shut like

ENGINEERING

our refrigerator

In sale after sale when competitive chips were down, AUTO-LOK Windows have made the difference. They're delivered on the job completely assembled ... easy to install, no parts to lose, no adjustments to make ... quickly available from your local dealer. See him today!



BOX 4541, DEPT, AB-4, MIAMI, FLORIDA

APRIL 1953

2410015165

2400H14

4140 H

# for 32 years the "OVERHEAD DOOR"

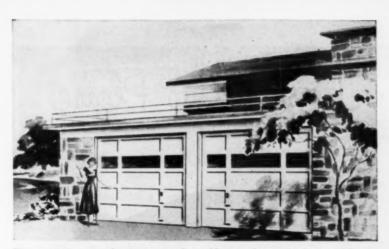
## has helped home builders to SATISFY home owners

A satisfied customer is your best asset. Take no chances! In every house you build, put this beautiful door — easy to open — perfectly balanced — expertly installed — and promptly serviced! It adds to the value of the home, wins instant favor with the owners.



Look for this famous trade mark in the yellow pages of your telephone directory.





Narrow section upward-acting garage door adds note of sweeping horizontal lines to over-all building design, particularly appropriate with modern ranch type construction. Wood components are treated with protective coating against fungus, termites, dry rot, and moisture. Good design is particularly important in garage doors inasmuch as their large size makes them prominent and even dominant factors in determining the exterior character and appearance of a home

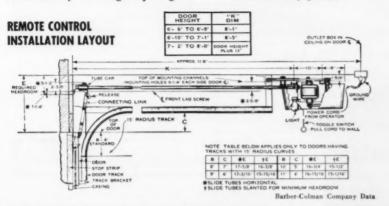
A TTEMPTS to catalog and tabulate sizes and dimensions of garage doors, their minimum rough opening requirements, wood jamb or metal jamb dimensions, and head-room requirements, break down among the complexity of hundreds of varying specifications of the stock items manufactured by the leading producers of modern garage doors. In addition, most companies also manufacture doors to order to fit nearly any special situation.

The AMERICAN BUILDER completed a survey of the more than twenty leading manufacturers, all of whom cooperated to the fullest in providing information, with the net result that an almost complete lack of "standardization," such as is had in residence windows and doors, is apparent in the garage door field.

Generally speaking, rough opening sizes correspond to door sizes, on the theory that larger openings may be brought down to size with the addition of framing materials to fill the opening. Cautionary note here is that such material must be of good quality and heavy enough to support the door and its mechanism properly. Other adjustments in fitting door to framing may be made by hanging door jambs slightly inside door opening proper.

Automatic door opening devices provide a similar complexity of specifications when attempts are made to tabulate or classify such elements as minimum headroom requirements, side room needed on right or left sides, dimensions of lifting mechanism, etc. Individual manufacturers specify size of motor to correspond roughly to weight of door the units must lift, but other measurements vary so greatly that each manufacturer's specifications must be taken into account when an installation is being planned.

(Continued on page 220)



Remote control apparatus operates garage door at momentary contact of single switch to either open or close door. Headroom required for this model is 18". Other models vary in headroom requirements; so it is essential that individual manufacturer's specilications be consulted before ordering such equipment.

APRIL 1953

GARAGES GARAGE DOORS, HARDWARE, and AUTOMATIC Operators

Garages

Multiple Purpose Planning and Design Construction

Doors

Hardware

Automatic Operators

Driveways

FOR MORE INFORMATION ON PRODUCTS ADVERTISED AND DESCRIBED IN THIS CHAPTER PLEASE USE ONE OF THE PREPARED INQUIRY POSTCARDS IN THIS ISSUE.

Designed to Please

Take sound design, careful engineering, top quality materials, superb construction . . . and you have the ingredients that make Ro-Way America's most wanted doors for residential garages or commercial buildings.

From every angle, Ro-Way doors are designed to please. Clean, simple lines that blend with and enhance any style of architecture. Famous features that assure smooth, easy-up, easy-down operation: Taper-Tite track and Seal-A-Matic hinges; ball bearing Double-Thick Tread rollers; Power-Metered springs individually powered to the weight of each door.

And every Ro-Way door is built to satisfy. Mortise and tenon joints both glued and *steel* doweled. Muntins, rails and stiles squared up with precision. Sections rabbeted to assure weather-tight joints. Millwork both drum and hand sanded for finer finish. Heavy gauge steel hardware Parkerized *and* Painted *after* fabrication for maximum rust resistance.

So-for every garage or commercial building-specify Ro-Way and be sure of complete satisfaction.



Nationwide sales and installation service. See your classified telephone directory for nearest Ro-Way distributor.



ROWE MANUFACTURING CO. 722 Holton Street, Galesburg, Illinois

AMERICAN BUILDER

Built to Satisfy

there's a

**Ro**·Way

for every doorway





The No. 77 rigid-type, for doors 8' wide x 6'8" high. A popular budget-wise beauty.



The No. 400, for luxury sectional-type convenience at minimum cost; a new winner!

Thouse

EASIER OPERATION MORE SELLING FEATURES FAST INSTALLATION MODERN DESIGN LOW HEADROOM WIDE RANGE OF SIZES YEARS OF TROUBLE FREE SERVICE



Sectional and Rigid Type

OVERHEAD GARAGE DOORS

AND HARDWARE

**ONE OF FRANTZ' FAMOUS 14 FEATURES** The new Frantz No. 500, shown at right, has more features than you ever saw in an overhead garage door! Smart in appearance, modern with ranch-style panels, this sensational new Frantz model requires only 6" headroom (for single-width sizes.) Wonderful "Glide-O-Matic" Action provides for a mere turn of the chrome plated handle—and the door glides open as if by unseen hands!





FRANTZ OVERHEAD HARDWARE SETS available in a complete line, for openings up to 18' wide x 12' high, for doors weighing up to 720 lbs. Frantz Hardware Sets give the builder or home-owner unlimited scope in designing garage doors to harmonize with any architectural plan. Write for Catalog No. 107.

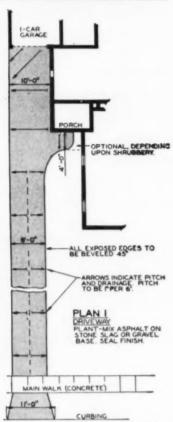
## AMERICA'S BEST ENGINEERED OVERHEAD GARAGE DOORS

When you see these modern overhead garage doors in action—when you experience their easy-opening and compare their beauty and their many other features—you will understand why so many dealers and contractors prefer FRANTZ.

Here are more than 25 sizes and styles of single and double-width, rigid and sectional type overhead doors. Here, also, for your special convenience, is a selection of Overhead Hardware Sets second to none. Whichever you prefer—complete doors or hardware only—Frantz has the answer. Write for Frantz' New Catalog No. 302.

FRANTZ MANUFACTURING COMPANY . STERLING, ILLINOIS





1

Courteey Troyer Driveway Service

Decorative finishes may be added to asphalt driveway by substituting a coat of coloring material instead of the second coat of final sealer. A two-coat treatment with prepared latex material gives a lasting color note to the landscape



#### **ASPHALT DRIVEWAY CONSTRUCTION**

Excavate as necessary to permit installation of a base consisting of crushed stone, slag, or gravel, compacted with screenings or sand with roller weighing not less than 100 lbs. per inch of roller width. Roll until no movement occurs before or after rolls

On this lay hot plant-mix asphalt 2" thick of base material  $1\frac{1}{2}$ " or smaller in size. On this lay fine topping asphalt, hot mix. 34" to 1" thick. Roll each course before laying next

Allow curing period of two weeks or more: then treat surface with two-coat application of sealer

Courtesy R. L. Taylor, Inc.

Jack knife doors are made in two sections. When the door is opened, a canopy is formed on the outside of the building by the two folded door members. The door operates on a track installed on the jamb. Doors are counterbalanced with weight for easy operation, and larger doors are provided with chain holsting mechanism. These doors are used primarily for non-standard size openings and for situations where the space inside the building must be kept clear but an upward-acting door is also required

#### Planning and Design

First of all, space for the car must be at least wide enough to permit car doors to be opened so individuals may get in and out comfortably when the car is in the garage. Ten feet is about the minimum width for this. It must be at least long enough so a person can get around the car with the garage door closed. That means at least six inches in front and about 18 inches clearance in the rear. With the exception of about three of the largest American passenger cars made, 20 feet is adequate for this. The ceiling or deck above the car should be at least seven feet six inches above the floor. These figures approximate the minimum requirements for housing the family car. FHA requirements in many areas specify minimum inside width of nine feet six inches and length of 19 feet.

Size of the lot and location of the garage determine largely where additional space can be provided in the unit so it can properly fulfill its function as a utility building. If it must be single-car width then the extra space should be added lengthwise. Even though the family may never intend to have two cars, a double-car 20-foot wide unit is desirable where space permits. Variations in providing extra storage and recreational space in garages can take an infinite number of steps in different directions from these two standard setups.

The Urban Land Institute in its "Community Builders Handbook" says: "It is recommended that storage space be provided in garages even where houses contain basements. Provision of storage space in the garage for tools, garden furniture, and similar articles is desirable. For single car garages, it has been found feasible to add five to six feet to the length of the garage for this purpose. This is preferable to widening the garage as this may require a greater lot width."

Home buyers definitely prefer the attached garage with direct access to the street. Garages on the rear of the lot are unpopular because of the great amount of paving required and their interference with the use of yards.

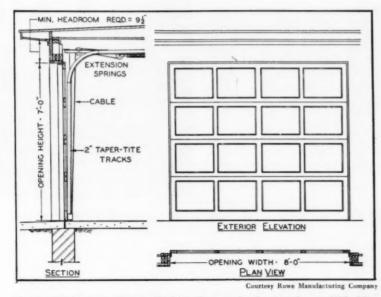
When planning the garage, consider traffic between garage and house, garage and rear yard. Consider the housewife shopper with a load of bundles to carry from car to kitchen. A large door opening directly to the rear or side of the garage is usually preferred. When single garages are built wider than the 10-foot minimum inside but less than two-car width, the eight- or nine-foot entrance door for the car should be placed off-center so that maximum storage or work space is allowed at one side.

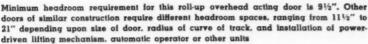
In addition to considering size of lot, building codes, climate, street traffic, and parking space for visitors, plan for adequate wiring, good lighting, and suitable ventilation to remove gasoline fumes and other odors from attached garages. There should be provision for running water as well as window area for light over work space.

#### Construction

No matter how well designed the garage is, it can soon start to fall apart without a good foundation.

Opening Preparations for JACK-KNIFE TYPE Garage Door





Footings and foundations should always be put down according to local code requirements and climatic needs. Recommended floor for the modern garage is concrete slab at least four inches thick and equipped with drain. Unless the slab is reinforced, the underlying bed should be cinders, gravel, or crushed rock at least four inches deep. Earth should be level and tamped. The concrete slab should be at least two feet in front of the garage to form an apron sloping to the driveway. An expansion joint should be provided between apron and driveway. One popular floor with slab and foundation in one unit is the thick-edge reinforced slab. These are 18 to 24 inches thick at the outside edges with the underside arched to a minimum of four inches at the center.

Fire guards: All attached garages should be separated from the house by a fire-wall and fire-resistant doors which conform to local codes and underwriter specifications. If the house heating unit is installed in the garage, it should be partitioned off to prevent loss of heat. Where door openings occur between garage and house, the garage floor should be lower than the adjoining floor, or the door saddle should be raised a few inches.

#### Garage Doors

The garage door is usually the biggest single unit of movable equipment built in as part of the housing establishment. It is also one of the largest and most conspicuous features of the average home. Designers and builders who desire to please their clients therefore accord the garage door problem much thought and consideration.

A large group of ingenious manufacturers, fully recognizing the problems of garage closures, have developed a host of excellent doors to meet an infinite variety of problems and tastes. There should be no valid reason why any modern garage door should not operate as easily as the front door of the home, and look just as attractive.

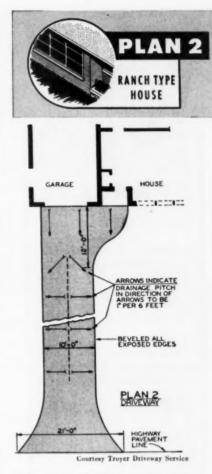
There are about six major types of garage doors on the market in a wide range of prices. These can be roughly classified as the roll-up or sectional door; the swing-up or panel type; sliding door; hinged doors; accordion doors and the two section upward-folding door. Upward-acting doors of one type or another are far



AUTOMOBILE bumpers and tail pipes scrape the driveway unless careful calculation is made on grade variations. A change of not more than one inch per foot within any 10 feet of distance will usually allow adequate clearance in the lead in popularity with builders

and home purchasers.

Prime consideration in planning any garage for the installation of an upward-acting door is provision for (Continued on page 226)



Driveway in this plan is wider than usual because house faces front on its long dimension, which would otherwise give driveway a "skinny" appearance. Alternate construction would be concrete slab 4" thick of 6-bag per yard mixture

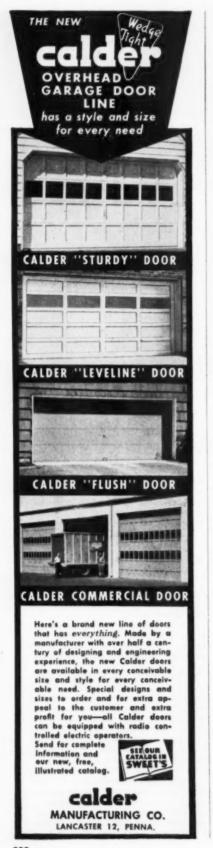
#### . . . . .

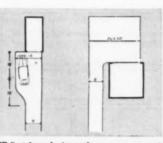
Drainage should be allowed for on the basis of 1" pitch per 6' of drive area. All exposed edges should be beveled 45° to avoid breaking off

In laying out driveway, drive stakes at all corners, curves, and every 30' between. Notch stakes at desired finish grade and attach taut carpenter's chalk line

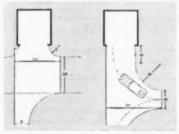
After excavation, spread coarse stone or gravel with spreader chains attached to truck tailgate. Stone spreaders will be even more accurate. Level off aggregate about 1" below grade and add screenings or sand before rolling. Add more fine material as necessary for thorough binding of aggregates. Check grade of compacted material after rolling; it should be from 2" to  $2\frac{1}{2}$ " below grade

Cold mix materials will work as well as hot-mixes, but require a much greater curing period. Cold mix is more satisfactory where there may be some lack of rigidity in the base, as it remains flexible longer than hot mix asphalt





THE first four designs above suggest various types of parking areas and turngrounds that can be incorporated as part of the garage driveway where they are necessary or desirable. Where these large



areas are concrete they are also ideal for children's play or game courts. Dimensions shown are minimum. Where the driveway crosses the street curb, it must be flared at a three to five-foot radius.

Drawings Courtesy Fir Door Institute

50-50 JUSH-OVER

DOOR

lasting customer satisfaction.

ROI

Combine the expertly-designed Allith garage door hardware with your own or any standard door. Result . . . a

rugged, easily-operated overhead door that gives full and

Quickly installed, standard set fits any opening up to 9'

wide x 7'6" high when doors do not exceed 275 lbs. Other

r ,

sets available for openings up to 10' wide x 10' high.

DANVILLE, ILLINOIS

IN AMERICAN BUILDER for Forty-Five Years

HARDWARE



te vea

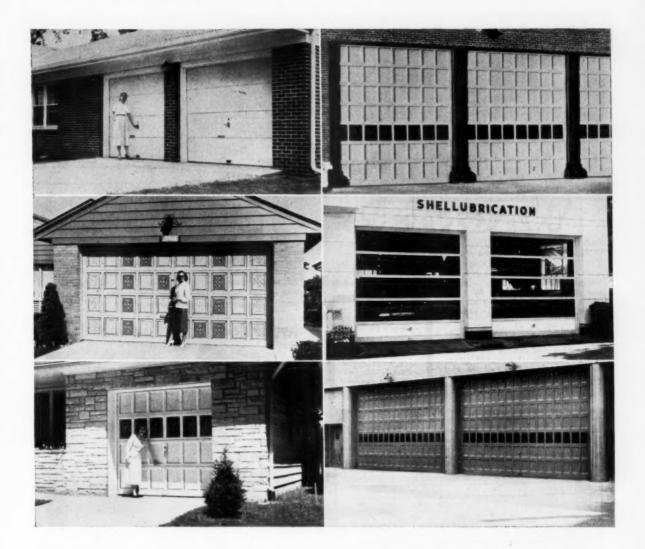
FREE CATALOG-Write Dept. AB NATION-WIDE SALES, INSTALLATION & SERVICE

ROBOT APPLIANCES, INC.

AP

WRITTEN GUARANTEE cov

Easy to Install ... **Lasting Satisfaction** 



## **RAYNOR DOORS** present an All Star line-up of Wood Sectional Overhead Doors

Regardless of the size opening — you can depend on the Raynor Mfg. Co. to supply you with a wood sectional overhead door of the finest quality and design.

Raynor sections embody three-way stress construction (mortised and tenoned, steel dowelled and glued), and all Raynor hardware is "protecto dipped" or cadmium plated for complete weather protection.

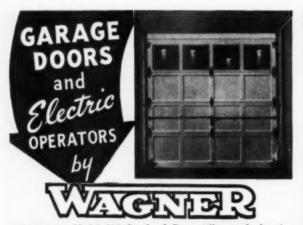
When you combine these important features with Raynor co-ordinated construction (hardware and wood sections are built complete in the Raynor plant) it is understandable how consistently Raynor fulfills its pledge of top door quality.

Whether it is a residential, commercial or industrial door you can assure the Ravnor door owner of

ented Raynor universal graduated hinge. For door installations that demand something really different, Raynor Carved Raised Panels and Flush Doors are unequalled in originality.

precision finger tip control at all times, thanks to Raynor Graduated Seal, made possible by the pat-





"ROLLEZY"—Model 326 Overhead Door (illustrated above) is now made in 32 standard sizes from 8' x 6' 6" to 16' x 7'. Here's a top quality, easy operating, low priced door that will win trade and hold it for you.

"GLIDEOVER"-Made in a wide range of overhead models

also

Cowheres Trestles

Scaffold Brackets

Folding Ladder Brackets

Farm Building Hard-

ware and Specialties

Ask for Bulletin ABG-53

COMPAN

Roof Brackets

and sizes from 8' x 7' to 24' x 24', which enables you to meet all residential and commercial requirements.

"AUTOMATIC DOORMAN" — The magic push button electric operator for opening and closing ANY make or type of sectional overhead garage doors and most makes and types of one-piece doors.

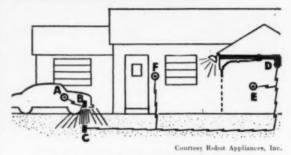


WAGNER MANUFACTURING

CEDAR FALLS IOWA U.S.A Tr DF EXTENSION TYPE SPRINGS CHAIN Ge HORIZONTAL TRACKS AUXILIARY CHAIN HOIST AVAILABLE IF REQUIRED IS RAD 0-6 TAPER TITE HEIGHT-TRACKS PENNIG EXTERIOR ELEVATION OPENING WIDTH - 9-0-PLAN VIEW SECTION Courtesy Rowe Manufacturing Company

Installation details of industrial type upward acting garage door with pass door for individual entering or leaving without vehicle. Spring-powered chain hoist mechanism may also be power-driven and activated by automatic operator

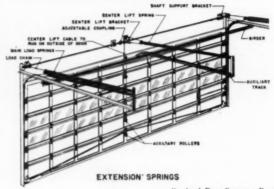
## installation details



#### HOW REMOTE DOOR OPERATOR WORKS:

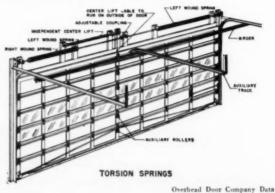
Control button (A) connected to electrical system of vehicle requires simple touch upon entering driveway. Electric coil underneath car (B) radiates magnetism to mercury switch buried underneath driveway. Magnetic switch (C) then closes 12-volt circuit which controls door operate in garage. Electric operator (D) unlocks and opens garage door, may also switch on yard and garage lights. Control buttons in wall panels (E) in house and garage provide manual operation

## two wide-door installations . . .

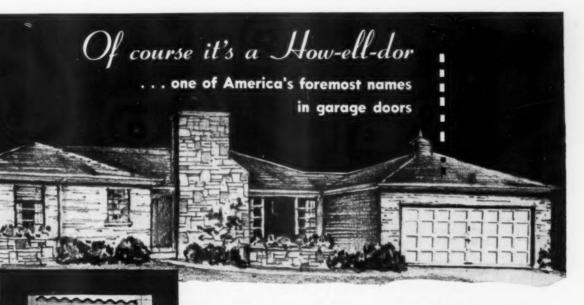


Overhead Door Company Data

Above and below are shown two wide door installations with auxiliary tracks and additional center springs to make overhead operation of large doors simple and easy. Doors over 20' 3" wide are equipped with a steel girder bolted to the horizontal tracks. This forms a support for auxiliary center track which is also supported at rear from ceiling. With extension type springs, above, the lifting cable extends from fixture on bottom rail on outside of door to cable pulley above lintel. With torsion type springs, below, lifting cable is attached to bottom rail on outside of door by special cable fixture and extends to drum on shaft independent of center-lifting spring



Oreintau Door Company Data





There's a How-ell-dor Electric Operator for every design door. The functional 20th-century styling...sturdy, weather-tight construction . . . "feather-touch" door action . . . at popular down-to-earth prices . . . contribute to make the How-ell-dor sectional Upsweep garage door a mighty attractive sales package.

To satisfy *every* residential, commercial, and service station requirement . . . to assure fast, dependable service . . . there are now 40 How-ell-dor stock sizes and styles. Unusual sizes and designs are a specialty.

#### Of particular interest to all builders and supply dealers are these features of the How-ell-dor Trade Story

### Ease of Installation

Because it is a prefabricated product . . . drilled and ready to bolt together . . . the How-ell-dor reduces guesswork and time-on-the-job to a minimum. An Instruction Sheet, accompanying each door, illustrates the progressive steps involved in the installation process.

#### Low Headroom Hardware

The Howell Manufacturing Co. has pioneered in the development of the Natural Seven Track that can be installed in 7" of headroom. This innovation eliminates the need for special brackets or auxiliary track . . . makes possible a considerable saving in material and labor. Hardware for  $91/2^{\circ}$ , 6" and 3" low headroom requirements are also available.

#### Engineering Assistance

The HOWELL Manufacturing Co.

7200 Hasbrook Avenue

Our designing and engineering staff always stand ready to assist you in your particular door problems.

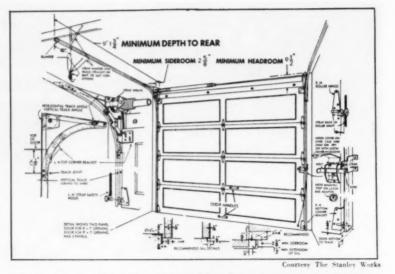
Philadelphia 11, Pa.

Write to Dept. A for FREE Catalogs



(Continued from page 221) head room for the type of door to be installed. There are doors available to take care of all kinds of head room situations, with a number on the market which require no head room. some only two or three inches, on up the scale to others which require 15 to 16 inches. Stock sizes range , from the smallest listed, which is 8 feet wide by 6 feet 6 inches high, on up to the large full double garage width of 14, 15 and 16 feet. There are sectional roll-up doors available with removable center posts. Thus two or more doors can be installed to close a large opening and if found desirable. the center posts between the doors can be raised up and taken out of the way to provide a clear opening of any width structurally sound.

Manufacturers are bringing remote control by electricity or sound activation to garage doors at prices that often make it practical to install these units.



This 8' x 7' 2-panel door is designed for a standard door opening of the same dimensions. Spring-powered lifting mechanism operated with minimum headroom of  $9\frac{1}{2}$ ". Similar door for 9' opening has three panels, other features essentially the same

Their desirability and convenience to the home owner stem from the fact that the garage door can be opened or closed by merely pushing a button on the instrument panel or floor of the car. With garages fronting on the streets and being used more extensively as utility and storage structures, the need for keeping the door closed at all times is obvious. It not only obviates the danger of theft but also closes off from public view whatever weaknesses the home owner may have as a neat housekeeper where the garage is concerned. Because houses are designed to look their best with

OPENING WIDTH

DOOR STOP

FURNISHED BY

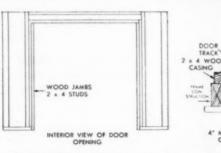
MINIMUM SIDE

CIEARANCE

### JAMB DETAILS - FRAME CONSTRUCTION



For good installation, lumber used in side jambs should be of good quality, straight, securely fastened to the structure, and not less than 15%" thick. Interior track support beam must be supported in center as well as at ends. With this, as with other garage doors, manufacturers furnish

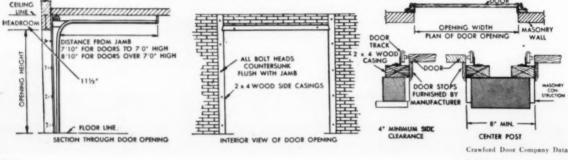


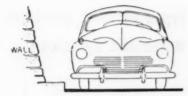
detailed and specific instructions for installation which should be followed to the letter to insure satisfactory door operation Proper door framing and jamb construction are essential to good operation of modern upward-acting garage doors. Manufacturer's specifications for finished Courtesy Crawford Door Company opening size will vary with frame or brick construction, with wood or steel door frame, and with wood or metal doors. Consult manufacturer specifications and individual requirements before either ordering door or completing door opening prior to installation

-

CENTER POST

## JAMB DETAILS - BRICK CONSTRUCTION





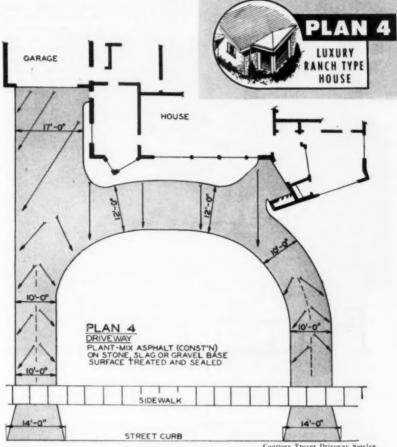
IF THERE is a retaining wall parallel with the driveway, it is desirable to install a low curb at the base to guide automobile wheels so fenders will not scrape the wall

the garage doors closed, it is desirable that they be closed most of the time, whether the garage is attached or detached.

There are several different models of automatic door operators, but basically they consist of a simple sending unit mounted in the owner's car with an individual wave length set to activate the door operator mounted in his garage. His car unit will not open any other doors and no other owner of an automatic set of his type can open his door. These units make contact with a coil imbedded in the driveway or directly with the operating mechanism. There are units that activate the door operators with inaudible sound vibrations and function in the standard manner. Electrical switches inside the garage can be used to open or close the door and, should electric power fail, the door can be opened manually.

#### Hardware

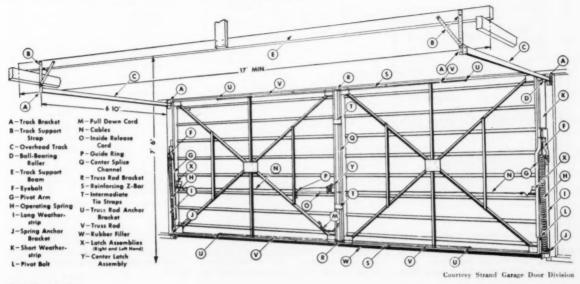
Proper installation is essential to good hardware and fittings. Follow strictly the manufacturer's specifications and directions on garage door and hardware installation, particu-



Rainbow type driveway suggested above is 2' wider in front of house to permit guests access to car without getting onto lawn or flowers. Driveway is designed

## interior details, double door . . .

Courtesy Troyer Driveway Service to be in keeping with over-all comfort and luxury built into this home. Two cars may park side-by-side in area in front of aarage





Base of parking lot should consist of S" foundation of compacted crushed stone rolled by roller weighing 150 lbs. per roller-inch. topped by two courses of asphalt totalling at least 2½" in thickness. Power-roll topping while hot. Area should have complete drainage of surface water into drains installed for the purpose, with catch basins installed so as to provide proper slope and surface bitch

## types of automatic operators

#### AUTOMATIC DOOR OPERATOR CONTROLS

INTERIOR

1-button: momentary contact opens or

Pull-Cord: Chain or metal cable. Constant pressure needed. EXTERIOR

switch:

frequency radio signal

which

sent out by transmitter in ve-

controls door operator. Will also

turn on lights. Signal has 75'-

1, 2, 3, or 4 station switches mounted on post in driveway

or wall of building.

activates switch

contact opens door. Constant pressure necessary to close door; release of button before door is closed will reverse action. 3-button: Up, Down, Stop, requires momentary contact.

momentary

closes door. 2-button, safety

Radio

Remote

Control

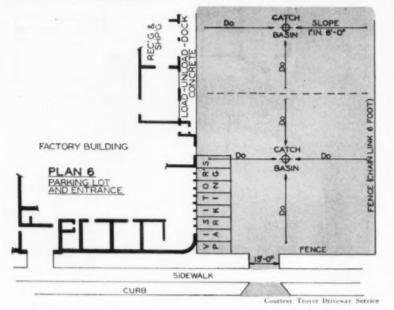
Key

Switch

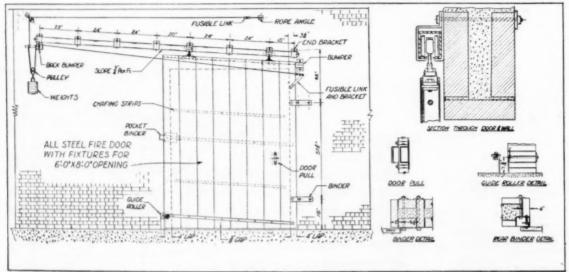
High

hicle

85' radius.

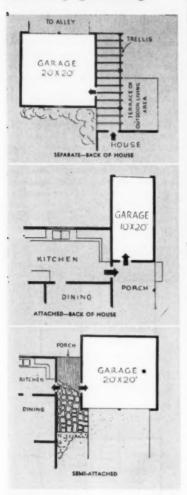


larly on upward-acting types. Decide on the particular door to be installed before the rough opening is made so that it will fit the finished job, and so that any necessary headers and jamb framing members can be built in originally to keep the door plumb and rigid. Hardware of many types is available for the contractor who wishes to fabricate his garage door on the site. Follow manufacturer's instructions and avoid overloading or misuse of fittings and parts. The renovation of old garages with new doors or with new hardware is an important aspect of remodeling work. Some companies offer hardware which will convert swinging or accordion doors to the upward-acting type.



Modern sliding fire door shown above is mounted on sloping rail, hung with counter-weight attached to fusible links which melt at specified dangerous temperature, permitting door to close automatically. All steel door, once closed, is Courtesy Richards-Wilcox Manufacturing Co. held firmly in place against possible explosion or drafts by binder bolted through wall

## driveway planning



IMPORTANCE of the location of the garage on the home site should never be underestimated. Easy and preferably protected access to the basement or service portions of the house adds immeasurably to the full use of the garage as a utility building. The driveway should always be planned at the same time the garage is planned. Tricky turns, bad grades and obstructed views of danger spots are some of the results of poor driveway plan-

#### Driveways

Poor driveway planning results in tricky turns, bad grades, obstructed views, accidents, and grief for the home owner. A one-car driveway should be at least eight feet wide on the straight and 11 feet wide on curves. The minimum width for 2-car drives is 15 feet, and wider is better. If the driveway slopes, there should be a level area the length of the car in front of the garage to prevent rolling if brakes are not set.

With modern automobiles, the smallest outside radius for a curve is 29

## **Roly-Door helps sell these homes**



- Quiet, free rolling, ball-bearing
- operation. • Rugged, welded steel construction.
- Low installation cost.
- · Low installation cost.
- Conforms to any style of architecture.
- Infra-red baked prime coat.
- Can be painted with regular house paint in your choice of color.
- Pin tumbler locks. Cylinder is keyable to fit home doors.
- Meets all Building Codes.
- Three sizes 8, 9 and 16 foot.

## For complete information see your Roly-Door Distributor or-

Roly-Door. Every purchaser of a

home in our Sylvia Park development

has marveled at the finger-tip opera-

tion and modern beauty of this Steel

Roly-Doors harmonizes with the mod-

ern trend to make the garage a part

of the architectural design. It makes

garages a very practical selling feature

of the home. Roly-Doors can give

added value to the homes you build

and make your selling easier. Take

advantage of their practical Selling Power. Their installed cost is low ---

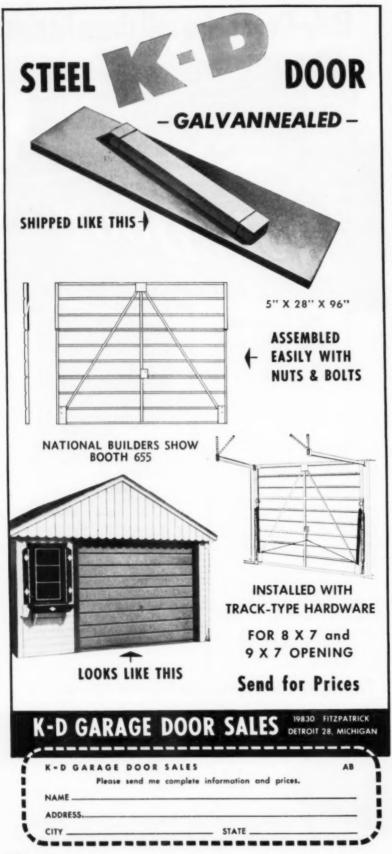
The lasting beauty of the Morrison

Sectional garage door.

their value high.

	Roly-Door Division Morrison Steel Products, Inc. 644 Amherst Street, Buffalo 7, N.Y.
antit	Gentlemen: We need more information on Roly-Doors for Quality Homes.
The second second	FIRM NAME
The state	ADDRESSS
T a c that	CITY ZONE STATE
TOUR	In Canada, Roly-Door Distributors, Ltd., 1330 Bloor, W., Toronto

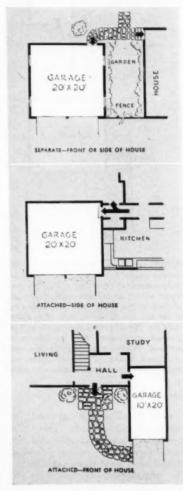
Also manufacturers of Mor-Sun Warm Air Furnaces and Carry-All Truck Bodies



feet, and the smallest inside radius 18 feet. Curb returns at the roadway should be three to five feet in radius.

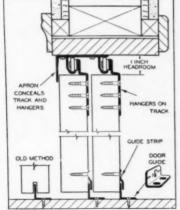
Sharp dips and sudden changes in grade are other faults to avoid. A change in grade of not over one inch per foot in any ten-foot stretch will allow adequate clearance for car overhangs. Slope the drive slightly to the sides for drainage.

Visitors and guests commonly park near the owner's driveway, and the garage and drive are frequently his first view of the place. This makes it essential that the driveway be in good order and the garage door attractive. Thanks to the ingenuity of designers and manufacturers, owners and builders can now obtain garage doors and fittings which are in excellent taste and make a handsome and inviting appearance.



A one-car driveway should be at least eight feet wide on straight stretches and 11 feet wide on the curves. Regardless of grade there should always be a level area at least 15 feet long in front of the garage to facilitate parking without the danger of the car moving because brakes are not set or because of tampering

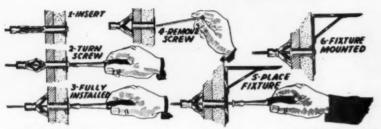




Sliding closet and wardrobe doors offer builders many opportunities to economize in construction and make homes more salable. Unit shown has nylon rollers, cadmium plated steel hangers and track. To install, cut track to fit opening and screw to header



## ... screw anchors save time



Courtesy Molly Corporation

Screw anchors may be used in any type of hollow wall, floor, or ceiling. The anchor expands in back of wall as shown in Fig. 3, above, and remains as a permanent fitting to which brackets, cabinets, or other fixtures may be attached securely. A variation is a plug with gasket to stop leaks in boilers and large pipe

APRIL 1953



## HARDWARE AS A SALES AID

Locks

Door Fittings Door Knobs, Handles, Pulls Weatherstripping

Window Fittings Sash Pulleys and Balances Window Handles and Lifts, Sash Hardware Casement Hardware Weatherstripping

Cabinet, Cupboard and Kitchen Cabinet Hardware

**Sliding and Special Door Fittings** 

Bathroom, Closet and Wardrobe Fittings

Garage Door Hardware and Fittings

Specialties and Special Order Trim

Builders' Hardware

Time Savers

FOR MORE INFORMATION ON PRODUCTS ADVERTISED AND DESCRIBED IN THIS CHAPTER PLEASE USE ONE OF THE PREPARED INQUIRY POSTCARDS IN THIS ISSUE.

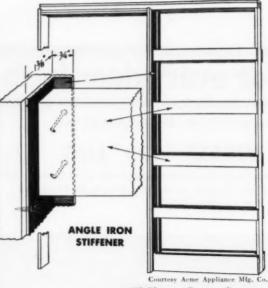
		kwikset locksets
		precision manufactured
kwikset	KWIKSET INSTALLATION AIDS job-engineered • field tested fast, trouble free installations • elimination of "expensive call-backs"	
<b>C</b>	ONE HOLE JIG For use with hand brace with single blace bit or power tools with multi-spur bit.	DALY THREE PRECISION MATCHED COMPONENTS 2 TO DISTALL ON THE DOOR
	THREE HOLE JIG For use with power drills or hand brace.	
2" MULTI-SPUR BIT For power tools.	7/2 INCH BIT	
Used with one hole jig.	Three hole jig. 7/16 INCH BIT For ½ inch power drill Used with	
ADJUSTABLE STRIKE Patent Pending Finger tip adjust- able feature with positive locking action. Allows for easy adjustment. "(When available)	three hole jig. MOKTISER	
STRIKE LOCATOR Marks jamb for proper strike location.	CYLINDER REMOVING TOOL For cylinder reversing of right and left handed doors,	for complete

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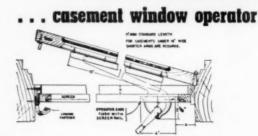


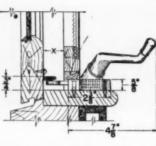


## ... sliding door frame

Ready-built frames to handle finished doors from 2 to 3 feet in width are reinforced with 16-gauge steel angle iron shown in detail to provide added strength. Dimensions shown are for standard 4" stud plaster walls with outside measurement 5%" out to out. Frames for drywall have 4%" jamb width, and for bullnose 4%" jamb







Data for installation of right-hand operator on screened wood casement equipped with but hinges—

DIMENSION A Minimum 21/4" with but hinges. Minimum 4" with exten-

sion hinges. DIMENSION X Minimum 1° with butt or extension hinges. Maximum 4° with butt hinges. Maximum 2%° with extension hinges. Courtes yt. S. Getty & Co., Inc.

Internal gear operator, drilled for wood casements. Installation shown is with use of a screen seat. Operator may be installed with screen rail notched out to fit over operator housing. It functions through the screen, or may be used on non-screened windows

## ... jig speeds cylinder lock installation







Mark door, set jig and drill two 7/8" holes for latch and spindle

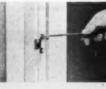
Drill two 7/16" holes for

Mortise for latch face

Three-hole jig shown cuts installation of these cylinder locks to less than five minutes per lock. Designed for use with power drills, precision engineered jig clamps onto







Install exterior knob assembly Install interior knob and tighten screws Mortise door jamb and install strike

door with quick turn of wrist, assures proper right-angle holes for good lock fit. Accessory tools include mortiser, strike marker, special drills





Remove excess wood for latch face

Mark jamb with strike locator

Courtesy Kwikset Sales & Service Company

Incort latch

ARDWARE is an important sales aid. Automatic window operators, weather stripping, hardware which makes windows easy to open, easy to clean and efficient in ventilation, are all talking points. Doors hung on good hinges so that they will operate at a touch of the finger, quietly and easily, appeal to the housewife with small children. Push plates and escutcheon plates which make it easier to keep walls and woodwork clean also appeal, as do bathroom door locks which can be opened from the outside so that Junior can't lock himself in.

A house built to shout "quality" as you walk up to the front door gives the prospect a definite let-down when he takes hold of a cheap-appearing door knob, notices an indifferent lock, has trouble opening the door because it doesn't hang well on the hinges, and finds cheap trim used where good trim belongs. The effect of the finest layout of kitchen cabinets is spoiled when Mrs. Prospect pulls open a cabinet drawer and scratches her hand on a poorly-finished handle.

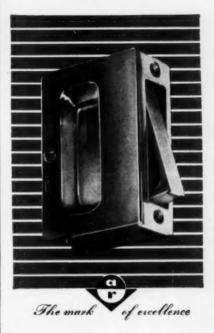
The use of high-quality fittings and hardware, well-designed shelf brackets, casters, latches, snaps, chains and guards for doors, door stops, door closers, bathroom fittings, clothes hooks and other wardrobe fittings, as well as appropriate decorative trim and venetian blind or drapery fittings —all add in a thousand ways to the prospect's appreciation of the value of the property.

While impressed with modern design and efficient layout for comfortable living, prospects generally think in terms of the house built to last a hundred years. It is, of course, easier to point out structural features to a buyer who visits the house when it is

(Continued on page 240)

Announcing





This fine new Adams-Rite No. 100 combination pull incorporates two flush pulls and an edge pull for use on sliding doors. The flush pulls are deeply recessed and the edge pull is equipped with a spring return.

The pull is easily installed by merely notching the door and is adjustable to fit doors from  $1\frac{1}{6}$ " to  $1\frac{3}{6}$ " in thickness. The escutcheons measure  $3\frac{3}{16}$ " x  $2\frac{3}{6}$ ". A cutout template is packed with each unit.

Like all Adams-Rite quality products, the pull is made of solid brass ... is available in seven standard finishes... and is hand polished.





235

# SCHLAGE

## SCHLAGE locks are easy to order

The SCHLAGE Selector Chart takes the guesswork out of ordering. If you don't have the chart, ask for it!

## SCHLAGE locks are easy to stock

Shelf stock is quickly identified by a simplified numbering system and colored labels which denote type of lock.

## SCHLAGE locks are easy to sell

SCHLAGE provides point-of-sale posters, window displays, advertising mats and illustrated circulars for your sales promotion programs. National advertising in architect and builder magazines paves the way for easy sales.









SCHLAGE standard residential lacones a strikingly becutiful unceret when used with the RMroutchess and 5" backset Ink.

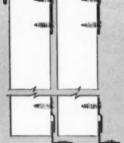






# BULDERS. here's the





Cutaway view of Leigh Sliding Deer Hardware installed on 1%" deers.

## **COST LESS-INSTALL FASTER**

By-passing doors are the ideal doors for closets, cupboards, wardrobes. They increase room space, cost less to install and give an added touch of modern beauty to *any* room.

Leigh Sliding Door Hardware is the ideal unit for hanging sliding doors. Leigh saves you time and money on every installation. It's completely packaged for your convenience and on-the-job protection, eliminating the need for time-wasting delay while additional parts are obtained.

With Leigh, all adjustments and alignments can be made by unhooking doors from the track. Doors lift easily from the *front*. Guide Strip at door bottom eliminates troublesome grooving.

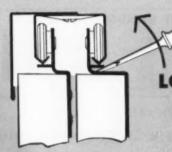
A facia strip is available for trim at top of opening to eliminate the top trim board and reduce installation time.

Compare, and you'll standardize on Leigh Sliding Door Hardware for low cost, trouble-free operation.

## Complete parts for one installation in this heavy tube



Everything you need for a single installation comes complete in this heavy shipping tube. Parts are zinc-plated heavy gauge steel, track is zinc coated and bonderized. Door pulls are solid brass. Sizes for 2, 3 and 4 by-passing door installations for %" or 1%" doors.



## Look at LOK-TAB\*

LOK-TAB<sup>\*</sup>, an exclusive feature found only on Leigh hardware, is the final installation operation, absolutely insures doors cannot jump the track. Only a screwdriver is needed to set LOK-TAB<sup>\*</sup> in place. LOK-TAB<sup>\*</sup> means greater customer satisfaction, an end to troublesome call-backs.

"You get a whale of a lot for your money when you buy Leigh Building Products".



Vew



## SLIDING DOOR HARDWARE

## LOK-TAB\*

Leigh's exclusive LOK-TAB\* is only one of the outstanding time and money-saving features of this new by-passing door hardware. Leigh Sliding Door Hardware is engineered and built for the finest homes, yet priced so low you'll want it for your low-cost housing projects.

## LEIGH OFFERS YOU:

Easier installations, long, trouble-free operation.

## "STURDICO" WHEELS

Quiet, easy-rolling wheels designed for years of satisfactory service.

## COMPLETE PACKAGE

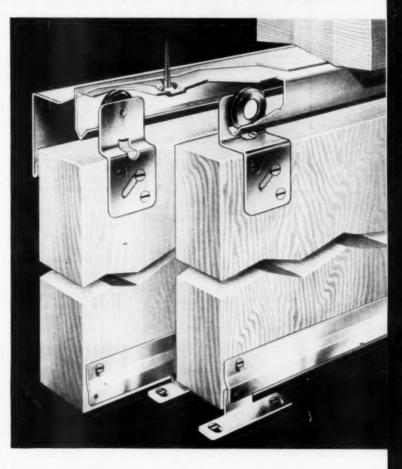
Everything you need for a complete installation in a heavy tube.

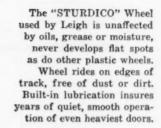
## **GUIDE STRIP**

Eliminates grooving doors, saves valuable time, insures smoother operation.

WRITE TODAY for Bulletin 87-L giving full, illustrated information on this outstanding <u>new</u> line of sliding door hardware. For full details on the <u>complete</u> line of Leigh Building Products, ask for Catalog 52-L.

\*Patent Pending





the finest WHEEL!



AIR CONTROL PRODUCTS, INC.

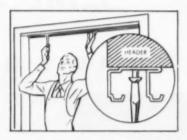
Leigh Ave., Coopersville, Michigan

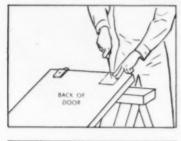
DUCTS DIVISION

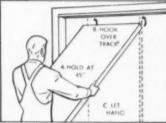
PRO

DING

## ... steps in installing by-passing and by-parting sliding doors









Typical installation of by-passing sliding doors in wardrobe closet

(1) To install sliding door, first cut continuous saw slot in center of bottom of door, 3%" deep, 1%" wide.

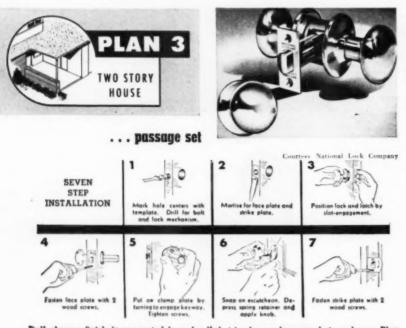
(2) Mount track to header with #8 round head wood screws: front face of track flush with opening.

(3) Locate holes on upper left and right sides of rear of door using template. Mount carriers with one screw only at this point.

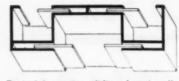
(4) With carriers attached, hold door- at  $45^{\circ}$  angle and lift to rest rollers on ,bottom rail of track. Rear door mounts first in double-door installations. Clearance between door bottom and floor or saddle should be  $1_{9}$ ".

(5) Adjust door for clearance by loosening screw in adjusting slot of hanger. Retighten and add one more screw. leaving third screw hole for future adjustments and anchoring.

(6) Slide door to one side of opening and place floor guide in center of opening so that half of guide is in door groove. Fasten exposed portion, then slide door to other side and fasten remainder.

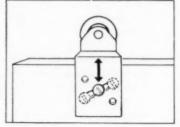


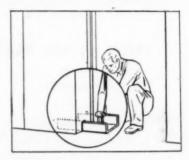
Dull chrome finish is suggested here for lock trim for modern ranch type home. Plan 2. Simple. 7-step installation, and good design add salability and construction economy to the structure. Lockset above is recommended for closet in entry to living room, doors from living room to hall and from living room to kitchen, other closet and bedroom doors



Typical by-parting sliding door installation in closet wall

Grant Pulley & Hardware Data





#### (Continued from page 235)

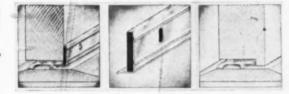
under construction. Nevertheless, explanation of how heavy sill bolts are used to tig the frame to the foundation and how special truss fasteners, wall ties, sheathing nails, windowframe anchors, and other hardware items are used, will help to build appreciation for the "house that's built to last."

#### Specialties Help Sell, Too

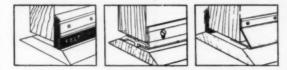
The house with attached garage is now so common that much attention is paid by buyers to the problem of opening and closing garage doors. There are a number of manufacturers who have special kardware for this purpose, the easy functioning of which is a sales point for the builder.

When you use hardware as evidence of value, talk function. Explain that the locks and latches on the various doors were selected for certain special features of operation. Point out that finish hardware was selected to match the decorative scheme of the house, that it is easy to maintain and of a type easily replaced when necessary. Demonstrate throughout that the hardware used is not just "window-dressing" but represents function combined with beauty to increase the livability of the house.

## ... weather stripping for doors

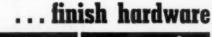


Exposed hook style of felt and metal weatherstripping for door bottom combines with threshold strip to make weather-tight seal. Concealed hook as shown at right, above, may be used with same threshold strip



Plain door bottom strip of felt and metal keeps out under-door drafts. Center, above, metal hook strip without felt makes weather-seal with threshold. Right, above, felt door-bottom strip is combined with drip-cap to provide weather-proof and waterproof seal

Courtesy Macklanburg-Duncan Co.







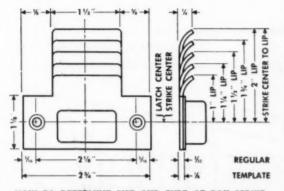
Right Hand A door that opens inward and is hinged at right, is a right hand door. A door opening inward, hinged at left, is a left hand door



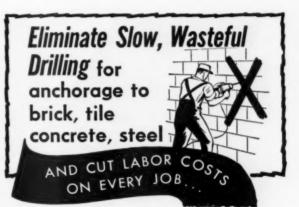
Courtesy Schlage Lock Company

Right Hand Reverse Bevel Left Hand Reverse Bevel

A door opening outward, hinged at right, is a right hand reverse bevel door. A door opening outward, hinged at left, is a left hand reverse bevel door. Hand of pin tumbler locks and many other door fittings should be specified for correct fit



HOW TO DETERMINE SIZE AND TYPE OF BOX STRIKE Measure from center line of strike to edge of door jamb. This dimension plus  $\frac{1}{4}$ " added for curved lip jamb clearance is size required. All standard strikes are  $1\frac{1}{4}$ " lip to center. Rabbeted wood doors and rabbeted latch bolts require rabbeted strikes



Installing furring strips, metal cabinets and insulation hangers on concrete or masonry walls need not be an expensive problem for you. Today you can eliminate the slow, wasteful job of drilling for anchorage... with *Gemco* products, and cut labor costs substantially on residential, commercial and industrial buildings. Here are the items

which will assure the fast, simple installation so important to you;





### **GEMCO** ANCHOR NAILS

... for installing furring strips, plaster grounds, carpet strips, etc. Fastened to surface with Tuff-Bond adhesive, they have ample strength to hold reasonable sidewall loads in place securely. Easy to install; anchoring is safe, sure, permanent.

## **GEMCO** ANCHOR BOLTS ... for guick, easy installation of

metal cabinets, outlet boxes, dispensers, mailboxes, etc., on concrete, brick, steel, hollow tile, gypsum tile. No drilling or welding.

**GEMCO** Insulation Hangers

... ideal for installing batt-type insulation on concrete, brick, or metal. Many man-hours saved over welding of wires or installing mechanical fasteners.

Other Goodloe E. Moore, Incorporated, products: TUFF-BOND outstanding adhesives...super-strength ...waterproof...stick almost anything to anything! TUFF-TRED Safety Stair Nosing...for protecting any type stair steps from wear, improving the safety factor, maintaining and restoring stairway beauty.

A few choice distributorships and dealerships are available. Write, 'phone or wire...

GOODLOE E. MOORE INCORPORATED DANVILLE, ILLINOIS In Canada: W. D. ELMSLIE, Ltd. 409 Notre Dame St., West, Montreel 11, Quebec

Both Grant No. 16 (for single sliding or bi-parting doors) and Grant No. 17 (for by-passing doors) include these fine features: silent self-lubricating Nylon rollers, complete adjustability, fast installation. Both styles packaged for 4', 5', 6' and 8' openings. Track and parts also available in bulk, of course.

# Now available... the <u>quality</u> line of Sliding Door Hardware... packaged to size and ready to use!

The *hardware* was designed to make the customer happy.

#### The packaging is for you.

We mean Grant's famous Sliding Door Hardware twins, the Sixteen and Seventeen. You know how good they are. They're built to *work*, smoothly, silently. To last a lifetime. To make satisfied customers.

Now pre-packaging makes this fine line easier to handle and faster to install. Each kit includes all the parts needed for each opening, sealed and clean until ready for use. The clear instructions included make installation a matter of minutes. And there's a kit for every need.

See your supplier. Give it a try. We've made it easier for you to use the best.

Have your supplier show you

Grant Sliding Door Hardware . . . by "the Foremost Name in Sliding Devices"



Grant Pulley & Hardware Company 31-63 Whitestone Parkway, Flushing, N Y.

## **5-Step Plan For Specifying Hardware**

STEP ONE: Consists of writing a set of general conditions. This is a statement fixing responsibility with the successful bidder for adequate quantities. sizes, types, and quality, also templates and proper labeling of packages. It places responsibility for the receipt and installation with the contractor or others, as directed.

STEP TWO: Covers the specifications of the physical design of knobs. escutcheons, handles, and other parts, desired for all or various specific parts of the building. The design specified also indicates the type and grade of lock set or other hardware (i.e., whether knob and key, moritise type, cast or wrought knobs.

## ... how to install invisible hinges

To install invisible hinges, first measure from top of door to top of hinge location. Mark with nail or center punch and then drill holes of required depth as indicated by template. Recess sides smooth as shown in Fig. 4. One half of hinge is then forced into mortise. This should be a drive-fit. Screw holes are located from holes in hinge, drilled, and screws applied. With all hinges attached to door. door with hinges attached is used to locate mortises on frame, where process is repeated with template, mortising, and hinges driven into place. Screw holes are prepared and screws inserted firmly with door held in open position

Courtesy Sons Manufacturing Co.

#### Locks

Exterior doors require securitybe locks, generally fitted with pin tumbler lock mechanisms. Front entrances may have handle-and-thumb levers for better appearance. Available for doors of contemporary design is a lockset having a longer backset, placing the knob five to seven inches away from the door edge.

Locks for interior doors are made for both key and push-button operation for privacy in bedrooms and bathrooms. Access may be obtained in emergencies by screwdriver or pin releases. Special knob and lock assemblies are available for closet and locker doors, storerooms, roof decks, French doors, and other one- or twoside locking requirements.

#### Door Fittings

Door hinges for interior and exterior use—butt hinges—should be selected to match the thickness of the doors. The clearance of the door away from the trim must also be considered, as must the "hand" of the door (right or left hand opening) so that correct hinges for the particular doors are available on the job at the right time and place. Contess Lockwood Hardware Manufacturing Co.

etc.). Selections of design should be made with consideration for appearance, matching finishes, type, and beauty.

STEP THREE: Specifies finish by the use of U.S. Bureau of Standards symbols which include all popular and standard finishes for builders' hardware.

STEP FOUR: Door hardware is specified for each type of door by use of manufacturer's stock numbers, which indicate specific lock sets and butts or hinges or other supplemental items.

STEP FIVE: Specifies window hardware and miscellaneous items. Add here also general specifications concerning master keying etc.

FIGURE I

FIGURE 2

FIGURE 3

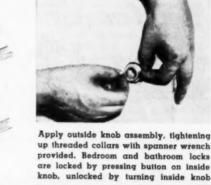
FIGURE S

FIGURE 1

## ... installation of exterior door lock

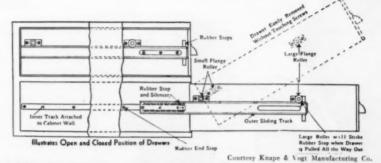


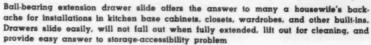
After boring holes according to template guide, slip inside knob assembly into hole in door face, followed by slipping lock into aligning tube. Then insert aligning pin to hold these two components in proper position





... extension drawer slide

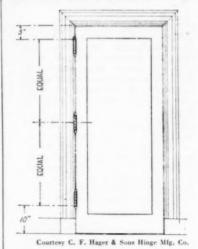






## proper location of butt hinges

1



Suggested rules for locating butt hinges on a door: 5" distance from jamb rabbet to top edge of butt hinge. 10" distance from finished floor line to bottom edge of bottom butt hinge. Center butt hinge evenly spaced between other two, 1/4" distance from face edge of door to edge of butt hinge mortise for doors up to  $2\frac{1}{4}$ ", and  $\frac{3}{8}$ " for doors  $2\frac{1}{2}$ " to 3" in thickness. 5/16" distance from stop to edge of butt hinge mortise frame, thus providing 1/16" clearance between door and stop.

## in selling your new homes

## .. the Sargent Screen and Storm Door Closer

The little details that prospective home-buyers unexpectedly find in a home are great sales-stimulants.

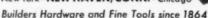
These quiet, powerful, low-cost closers are so quick and easy to install that your labor costs are nothing to worry about. Use the new Sargent Screen Door Closers on screen doors, storm doors, light interior doors, combination and jalousie doors and see how they help sell.

They can be opened to 120° and have a much appreciated hold-open device that lets a housewife pass in and out conveniently with packages, rubbish, etc.

And think of these other features. No changing parts for either right or left hand application. Large tube 138" diameter for over 20% greater checking capacity than usual 114" tube. Packed with both jamb and soffit brackets.

See the Sargent Screen and Storm Door Closer at your supplier today. Or, for complete details, write us, Dept. 5D.

## Sargent and Company New York . NEW HAVEN, CONN. . Chicago









÷,

# Points in your favor

## for impressing prospective home owners



A wide selection of locks and latches in a variety of types, styles and finishes.

Every top quality builders' hardware installation is a point in your favor. It reflects the extra care you take in selecting products that are constantly used and sometimes abused.

Russwin Builders' Hardware is expertly designed to stay good looking . . . to operate smoothly . . . to provide positive security, if it's a lockset . . . and to last a long time. The extra value of Russwin Ouality Builders' Hardware is easily explained . . . fully appreciated.

All Russwin products are labeled distinctly to save your time. They're easy to handle and install . . . attractively finished and sturdily built. Name your builders' hardware need for any type of building and you'll find it in the Russwin Quality Line ... uniform in size, finish,

quality, packaging and price. Russell & Erwin Division, The American Hardware Corporation, New Britain, Connecticut.



Night latches . . . a wide range of types and styles . . . brass, ball bearing cylinders provide security, permit master key system.



4

Pressure - cast aluminum miscellaneous hardware extra smooth finish of ball burnished brass or satin aluminum. Sturdy. Eco-nomical. Rustproof.

acting inside doors. Sturdily made with wrought steel plates and frame



5 Door closers of proven performance ... from air-controlled types for screen doors to heavy-duty liquid Ivpes.

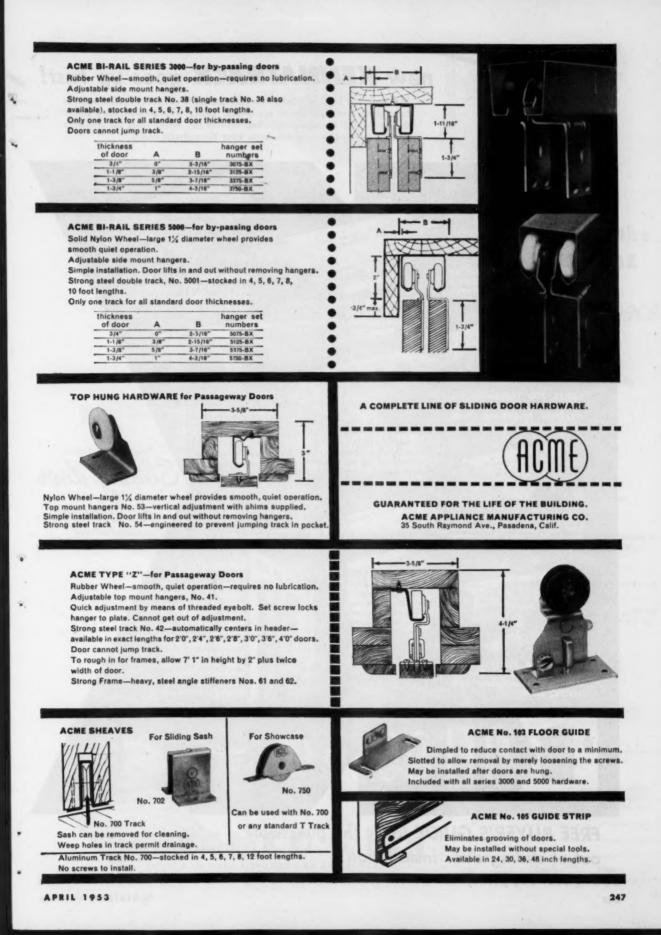


"PROVING THE ECONOMY OF QUALITY"



AMERICAN BUILDER

U.





# new KENNATRACK goes up fast!

Millwork has been eliminated...Installation is easier...Performance is finer than ever, and prices are lower! That's why Kennatrack's newly designed track is the builder's best bet-by far. Select from the complete packaged line, now available from your Kennatrack dealer.



out of sliding door installation!

See your supplier, or write Kennatrack Corporation, Elkhart, Indiana 248 AMERICAN BUILDER



automatic

## Sales Clincher for the EASY-TO-SELL HOME



With TEMCO Gas Floor Furnaces you can keep construction costs at a minimum while adding a nationally recognized automatic heating system

to your low-cost, Easy-to-Sell Homes.

#### HERE'S WHY!

✓ easy to install \_Fits right into the floor without need of basement.

Compact -Shallow construction, just 251/2" over-all.

Versatile -Operates with equal efficiency on manufactured, natural, or bottled gases.

functional - Engineered for maximum heat.

/ efficient -Porcelain Enamel Heat Chamber on Series 1 models has
full 20 year warranty.

 Comomical — Tens of thousands now in use prove you can guarantee the prospective home-owner that its operation will be thrifty beyond his expectations.

✓ automatic -Available with completely automatic controls.



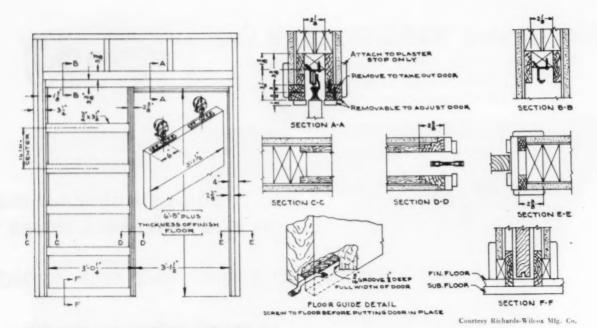
251/2" deep

Slab foundations, upstairs rooms, garden apartments, rambling ranch houses... you can build to heat them economically and efficiently with **TEMCO's** highly versatile Automatic Gas Wall Heaters.



For the complete story of **TEMCO** Gas Floor Furnaces and Wall Heaters fill out the coupon below:

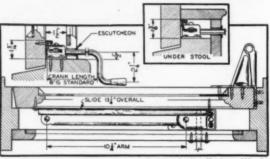
lashville 9,	Tennessee	
and full inform	ation on TEMCO	A specification sheets Automatic Gas Floor Gas Wall Heaters to:
Name		
Firm Name		
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City	County	State



#### sliding door installation details

Details of installation of sliding door, showing fittings and hardware together with ready-built wall panel framing for conventional 4" studded wall. Dimensions will vary with drywall or other types of construction, but installation economies remain the same

## ... casement operator details



Courtesy Sterling Hardware Mfg. Co

-

Casement operator is designed to provide more than usual ruggedness, plus smooth operation and attractive design. Operator is reversible and may be used with either butt or extension hinges. It requires only  $1^{1/2}{}^{\prime\prime}$  of space between sash and screen

KIND	LENGTH	GAUGE	HEAD	NO. PER LS
GYPSUM LATH	1½8" 1¼4" 1½"	12 <sup>1</sup> / <sub>2</sub> 12 <sup>1</sup> / <sub>2</sub> 12	5/16" 5/16" 5/16"	988 939 725
STANDARD SHINGLE	7/8" 11/4"	12 <sup>1</sup> / <sub>2</sub> 12 <sup>1</sup> / <sub>2</sub>	9/32" 9/32"	1313 1009
ROOFING	3/4" 7/6" 1" 11/4" 13/4" 2" 2"/2"	10 10 10 10 10 10	7/16" 7/16" 7/16" 7/16" 7/16" 7/16" 7/16"	746 663 605 491 417 368 336 274
ROOFING with Neoprene washers attached Plain Shank	13⁄4" 2" 21⁄2"	10 10 10	7/16" 7/16" 7/16"	318 285 243
ROOFING with Neoprene washers attached Screw Grip	13/4" 2" 21/2"	91/4 91/4 91/4	7/16" 7/16" 7/16"	288 258 215

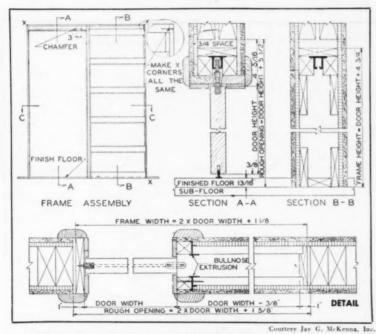
#### Courtesy Nichols Wire & Aluminum Co.

AMERICAN BUILDER

# ... aluminum nail specifications

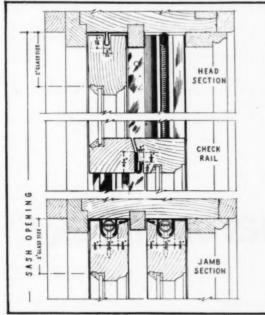
KIND	LENGTH	GAUGE	HEAD	NO. PER LB.
WOOD SIDING with Sinker Head	1 7/8" 21/8" 2 3/8" 2 7/8"	12 11 <sup>1</sup> / <sub>2</sub> 10 <sup>1</sup> / <sub>2</sub> 8 <sup>1</sup> / <sub>2</sub>	17/64" 17/64" 19/64" 5/16"	604 468 319 185
WOOD SIDING with Casing Head	17/3" 21/8" 23/8" 23/8"	12 11 <sup>1</sup> / <sub>2</sub> 10 <sup>1</sup> / <sub>2</sub> 8 <sup>1</sup> / <sub>2</sub>	9/64" 9/64" 5/32" 3/16"	604 468 319 185
CEDAR SHAKE	11/4" 13/4"	13 <sup>1</sup> /2 12 <sup>1</sup> /2	5/32" 5/32"	1300 724
CEDAR SHINGLES	11/4**	14	7/32"	1480
ASBESTOS	11/4" 13/4"	13 121/2	3/16" 3/16"	1230 720
ASBESTOS SHINGLE			10/32" 10/32" 10/32"	785 659 544
INSULATED SIDING Light Finish	2" 2½"	11½ 10	7/32" 7/32"	495 295
INSULATED SIDING Blk. Alrok Finish	2" 21/2"	11 <sup>1</sup> / <sub>2</sub> 10	7/32" 7/32"	495 295

Sinker head wood siding nails are used for wood and composition siding; casing head siding nails for wood siding, knotty pine and batten siding. Cedar shake nails may also be used to apply interior insulation<sup>6</sup> board. Cedar shingle nails are used with wood shingles, aluminum barn batten, and weatherstripping. Asbestos shingle nails are used with asbestos, slate, and tile roofing as well as with asbestos siding shingles. Insulated siding nails have light finish for face nailing light colored materials. Roofing nails work well with asphalt roofing, insulation "heathing and gypsum sheathing. Plain shark roofing nails apply crimp, plain, or corrugated roofing. Screw grip nail has similar applications with more holding power



#### ... closed pocket assembly for heavy sliding door

Closed pocket assembly for sliding door features eight load-carrying wheels for heavy doors. 3/4" vertical door adjustment, and extra heavy track to carry doors up to 85 pounds in weight. Necessary door frame may be obtained from millwork supplier handling the door assembly. Special extruded aluminum split molding affords straighter and stiffer jamb to provide greater rigidity and better operation



Courtesy Central Metal Strip Co

#### ... weather strip and sash balance combination

A combination weatherstripping guide and balance is said by manufacturer to eliminate leaky box frames, sash cords. Complete metal jambs provide sensitive sash control, good balance. easy adjustment. Units require no oiling, painting, or other maintenance

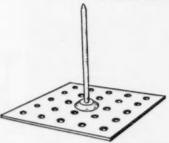
APRIL 1953

# ... magnetic latch PERMANENT MAGNET



Courtesy Laboratory Equipment Corp. Latch shown above consists of a small permanent magnet, a small plate of special steel, and necessary screws. No moving parts, no springs, no catchesmanufacturer claims trouble free operation which allows door to open without ierking

#### ... anchor nail



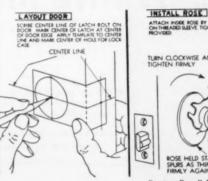
artesy Devices, Inc.

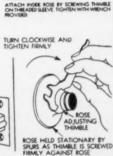
Anchor nail shown is used with installation of furring strips, drywall or plaster construction, and other installations where it may be applied to masonry wall with mastic cement

#### ... tools and templates speed lock installation

Thimble wrench provided with this lock set is designed to tighten or loosen rose thimble on lock set. A plastic sleeve is assembled to this wrench to prevent marring the finish of the rose thimble. Templates with full installation instructions are provided by the manufacturer with every lock set to aid installation

#### ... how to install deadholt front door lock





Courtesy Russell & Erwin Division



AMERICAN BUILDER

# FLOOR FURNACES Six Essentials of Satisfactory Installation

#### 1 SIZE

Be certain furnace is correctly sized to handle heat loss of the space to be heated.

Where furnace is sized for only a part of the house or building, it is advisable to draw up a short agreement for customer's signature mentioning that point. Whenever possible install sufficient capacity to heat the entire house or building.

#### 2 LOCATION

Place the furnace at least 6" away from any wall as required by Commercial standards. However, we recommend 12" for best performance. See that it is as nearly as possible centrally located in the space to be heated. Avoid locations in corners or alcoves. Do not try to heat through more than one archway and one doorway in any direction.

#### **3 VENTING**

Be certain furnace is correctly vented. Lateral vent should slope upwards at least  $\frac{1}{2}$  per foot to vertical flue with as few turns or ells as possible. Do not run lateral vents over 20 feet. When lateral vents are more than 10 feet, the pipe should be in-sulated with air cell material 1" thick.

#### **Heating Principles**

The builder and architect should be responsible for providing the following items:

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

2. A safe structure protected from fire hazards.

3. A tight structure to minimize heat loss.

4. A durable structure protected against moisture condensation.

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

6. An economical building for winter heating and a comfortable structure for summer coolness.

Research work has indicated conclusively that emphasis on heating equipment alone is not enough-more attention must be paid to the structure itself to insure comfort.

#### **Good Chimney Is Mandatory**

The first point to consider in chimnev construction is adequate flue area. The quantity of smoke and gas to be removed will depend on (a) the kind of fuel and (b) the amount of fuel needed to heat the house. Flues built for oil and gas burners will not need as large flue dimensions as those which serve furnaces that burn coal. In an area where hand-fired bituminous coal may be burned in a central heating plant, the nominal chimney flue dimensions should never be less than 8 inches by 12 inches.

The height of the furnace flue is also important, and for some furnaces must provide strong enough suction Don't vent to a flue already overloaded with other appliances. Seal off all leaks or openings in flue. Check for down drafts. If in an old house, see that chimney is thoroughly clean. Chimney should extend at least 2 feet above highest part of roof.

#### 4 COMBUSTION AIR

Be certain the furnace has sufficient air for combustion. Provide a free path for the flow of combustion air to the furnace.

#### **5 STOP INFILTRATION**

Be certain there is not excessive infiltration of cold air from outside or from unheated sections of the building. Loose windows, cracks around sills and floor, openings under doors, and open attic trap doors seriously affect circulation. Such conditions should be called to the customer's attention and corrected at the time of sale. Besides assuring better heating results, their elimination will save money on fuel bills.

#### 6 OPERATION

Carefully explain and demonstrate operation of furnace and automatic controls, if used, to customer before leaving. Call back again after 14 days operation to see that everything is right.

to draw air into the combustion space and up through the bed of ash and fuel; for others, the chimney will only need to supply necessary draft to remove the flue gases from the furnace

The preferred location for chimnevs is in the interior of the house. Inside chimneys are not so subject to backdrafts, to moisture condensation. or to smoke backing into the house. The preferred height is not less than 8 feet from the top of the smoke pipe connection of the furnace. If the flue must be offset, the angle of the offset should never be more than 30 degrees. Flue lining joints must be perfectly smooth and tight.

Prefabricated chimney units are available today which can be used in place of lined brick construction. Light in weight, they save on installation time and labor, claim savings of up to 50 per cent over brick construction. One type has an insulating wall equivalent to 24 inches of brick. Such chimneys are easily installed, are designed for one- or two-story construction and for use with all fuels. They can be suspended from the ceiling, the floor, or installed with pier support. Flue sections are lined with refractory fire clay, come with joint cement and draw bands for cementing the sections together. Roof housing is easily fitted to exact roof pitches. These packaged chimneys are accepted by FHA and national heating codes and have fire-safe ratings from Underwriters' Laboratories. (Continued on page 262)

# VENTILATING. and AIR CONDITIONING EOUIPMENT Heating Principles

HEATING.

Chimneys **Fire Hazards** Weatherproofing **Heat Loss Calculations** 

#### Fuel Storage

#### Modern Types

**Gravity Warm Air** Forced Warm Air **One-Pipe Steam One-Pipe Hot Water Floor Furnaces** 

#### Radiant Heating

Hot Water Warm Air **Glass Wall Panel** 

Perimeter Warm Air

**Baseboard Heating** 

**Control Systems** 

Heating Commercial Buildings

Air Conditioning and Ventilating

FOR MORE INFORMATION ON PRODUCTS ADVERTISED AND DESCRIBED IN THIS CHAPTER PLEASE USE ONE OF THE PREPARED INQUIRY POSTCARDS IN THIS ISSUE.

# Cool the entire house at low cost

# Hunter home cooling is one of the most popular features of modern homes



Installation is easy and inexpensive. Fan rests on attic floor—no suction box or other extras. Automatic ceiling shutter screw-fastens over ceiling opening —no replastering or repainting.

For home owners who want cool comfort at lowest cost during hot summer months, Hunter Attic Ventilation is the perfect answer. Both initial cost and operating expense are verv low.

The attic fan's method of cooling a house is simple (see drawing above). It drives out stagnant air through the attic and creates a strong suction which pulls in fresh, cool air from outdoors.

The new Hunter Attic Fan is a compact unit that is easily in-



stalled in any home. It requires only 18" attic clearance . . . ideal for low-pitched roofs. Certified air deliveries range from 5000 to 15500 —to fit any home size and climate.

This improved attic fan is priced substantially lower than previous models. Yet it has the same smooth, quiet operation and dependability that have made Hunter Fans famous for over 65 years.

Write for free copy of "How to Cool for Comfort." See our catalog in Sweet's Files.

HUNTER FAN AND VENTILATING CO. 381 S. Front St., Memphis 2, Tenn.

Hunter Package Attic Fans

#### "CONDENSED METHOD" HEAT LOSS FACTORS \*

#### 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.

- 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).
  - Ceiling area (below unheated room or attic space).
     Inside walls adjacent unheated rooms.
  - 4. Floor area (if space below floor in 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 hause, 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 bagether. 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 autside 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.

WINDOWS & DOORS Multiply so, ft. by: Without storm sash 113 With storm sash h 75 2 OUTSIDE WALLS (NET) Multiply sq. ft. by: SOLID MASONRY -- (Brick, stone, etc.) with plaster applied direct to inside sur-45 face of masonry wall. AVG. FRAME-Brick Veneer-Wood Sid-. ing - Shingles or Stucco - with sheath-ing, bldg. paper, studs, lath and plaster FURRED MASONRY-(Same as 2a with 30 air space between plaster and masonry wall INSULATED FRAME - Same as 2b . 20 with 1" or less insulation board or blanket HEAVILY INSULATED - Same as 2b . 10 with 2" or more insulation CEILINGS & INSIDE 3 Multiply on ft hy-CEILING - Plaster on lath or wall-board. 21 No floor above - Attic not vented h. Same as 3a - with 2" or more insulation 12 CEILING of first floor room below un-heated room on second floor c. 17 INSIDE WALL adjacent unheated room 4 FLOORS Multiply sq. ft. by: Double wood floor - over cool basement 15 or other enclosed space Same as 4a - but open space below floor h 82 exposed to outside INFILTRATION Multiply each sq. ft. of AIR LEAKAGE) window and door area by WINDOWS AND DOORS 50 Average fit - Not weatherstripped Average fit - weatherstripped 30 (or equipped with storm sash) 1.10 e: Poor fit - not weatherstripped d. Poor fit - Weatherstripped 43 (or equipped with storm sash) EXTRA FOR EACH OUTSIDE DOOR | 1000 e. f. EXTRA for air lost up fireplace flue 3000 "Above factors are approximate heat loss through each su, ft, of surface with 70" inside and --30" outside.



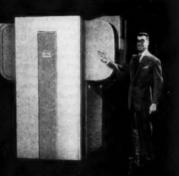
# Servel has a size

# NOW-with Servel <u>All-Year</u><sup>®</sup> Air Conditioning climate control, designed and

SERVEL 2-TON MODEL



SERVEL 3-TON MODEL



SERVEL 5-TON MODEL



Servel 2-ton model. Designed for the small, low-cost home. Occupies only  $2^{+}_{1i}' \times 4'$  floor space yet delivers full, yearround air conditioning. In winter, the unit automatically heats, humidifies, cleans and circulates the air, and maintains the conditioned space at a predetermined temperature. In summer, it automatically cools, dehumidifies, cleans and circulates the air, and maintains a constant temperature.

#### SPECIFICATIONS :

Delivered capacity -24,000 B.t.u./hr. cooling; 72,000 B.t.u./hr. heating. Size of unit  $-46^{\circ} \times 27^{\circ} \times 75^{\circ}$ . Weight-Approximately 890 lbs. Heating cycle-Heavy-gauge steel heat exchanger-gas-fired. Cooling cycle-Gas flame operates absorption refrigeration unit. Unit is hermetically sealed for longest life.



Servel 3-ton model. This "Bighome size" unit actually costs little more than the price of a heating system alone yet provides complete home comfort 365 days a year. One compact unit heats, humidifies, cleans and circulates the air in winter; cools, dehumidifies, cleans and circulates the air in summer.

#### SPECIFICATIONS:

Delivered capacity—40,000 B.t.u./hr. cooling; 96,000 B.t.u./hr. heating. Size of unit—51½ " x 51" x 73½". Weight—Approximately 1725 lbs. Heating cycle—Steam at atmospheric pressure is developed in the steam generator (gas- or oil-fired), delivered to the heating coil over which filtered air is forced by the blower. Two-step modulation reduces input to meet local conditions.

Cooling cycle—Steam from same generator actuates absorption refrigeration unit. No pumps or compressors needed.



Servel 5-ton model. For larger homes, this famous Servel unit pioneered in the introduction of *All-Year* air conditioning. Servel "no moving parts" design means quiet, economical, dependable year-round air conditioning.

Automatic control with the Selectrol, plus full heating modulation, maintains uniform temperatures and eliminates "lag" and "overshoot."

#### SPECIFICATIONS :

Delivered capacity –65,000 B.t.u./hr. cooling; up to 144,000 B.t.u./hr. heating. Size of unit- $66\frac{1}{4}$  " x  $57\frac{1}{2}$ " x  $84\frac{1}{2}$ " Weight – Approximately 2485 lbs. Heating cycle-Gas- or oil-fired. Available with 96,000 or 144,000 B.t.u./hr. output. Full modulation.

Cooling cycle—Famous absorption refrigeration unit operates from steam, produced by the steam generator or from any outside source under any pressure.

# for every home!

# – complete, year-round priced for every residential cost bracket!

# "No moving parts" design

All Servel All-Year Air Conditioners operate with no moving parts in either heating or cooling system. This means less noise, no vibration, minimum maintenance. Each hermetically sealed refrigerating unit carries a full five-year warranty.

Servel manufactures the world's finest air-conditioning equipment to fit all air-conditioning requirements residential, commercial, industrial—all-year or cooling alone. Before you build, consider the advantages of All-Year air conditioning—investigate Servel. No doubt about it, *All-Year* air conditioning is an added stimulant to home buying! In case after case, builders report that year-round climate control is the one feature that clinches the sale.

Now, no matter what size home you build, there is a Servel All-Year Air Conditioner engineered for the job and priced to fit every cost bracket. That means more sales, quicker sales for the builder lasting, year-round satisfaction for the home buyer.



#### WONDERAIR Ly SERVEL

Biggest value in the business  $-\frac{3}{4}$  h.p. at usual  $\frac{1}{2}$  h.p. price... and 1 h.p. at usual  $\frac{3}{4}$  h.p. price. Available in  $\frac{3}{4}$ - and 1-h.p. sizes. Choice of blond or mahogany cabinets. Single-dial weather control has 5 settings: full-power cooling, night turn-down, stale air exhaust, outside air only, cool air mixed with outside air. Thermostat control on 1-h.p. model—optional on  $\frac{3}{4}$ -h.p. model.

\*Trade-mark Reg. Pending.



the name to watch for great advances in -

# AIR CONDITIONING √ REFRIGERATION

	me complet g for [] reside			t All-Year ai
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"Irm				
Firm				



PERFORMANCE - With Lasting Economy, Fast, quiet hot water heating . . . instant hot water.

BOILER-BURNERS

C-SERIES

DESIGN-For Today's Market. Quick and easy to install. Aldrich saves money, space, installation time

QUALITY - At Quantity Prices. Engineered for instant response to heating needs . . . peak fuel efficiency.

GULF STREAM PACKAGE. Fully erected, pre-wired, accessoryequipped package. Ready to set in place and connect

#### EASIER TO SELL ... EASIER TO INSTALL ... EASIER TO SERVICE ....



**GULF STREAM STANDARD** Shipped fully erected with complete automatic controls: stock switch, thermostat and limit control.

HOT WATER HEATER Internally galvanized; 100 to 255 GPH at 100° rise. Instant, directly heated hot water.

#### ALDRICH OFFERS VALUE ....

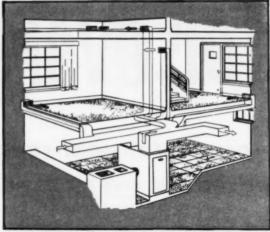
that's profitable to sell, practical to buy.

- Five sizes with SBI ratings from 440 to 1120 square feet of water radiation.
- Multiple flue tubes baffled for maximum heat extraction.
- Aldrich burners coordinated to Gulf Stream boilers.
- · For inspection and maintenance, readily removable top jacket and large opening to combustion chamber.
- Minimum temperature change regardless of firing conditions.
- **Designed for standardized production;** to meet ASME code.
- **Burners U.L. listed.**





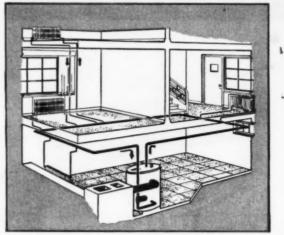
# forced warm air...



Courtesy York, Shipley, Inc.

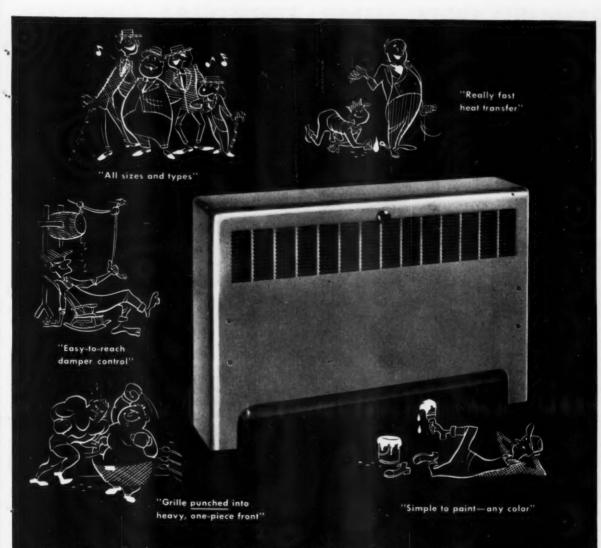
Forced warm air heating systems may be used in both large and small homes. Furnace may be located at any convenient place in basement or utility room. Heat is supplied by gas, oil, or coal burner, with a blower located in or adjacent to the furnace to force air through the heating chambers and throughout the system. Most forced warm air systems provide filters for cleaning the air and humidifiers for adding moisture. In summer, the system may be used for air circulation. This type of system provides very rapid response to changes in heating demands.

# forced hot water...



Courtesy York, Shipley, Inc.

Forced hot water heating systems may be used in homes of any size or shape. Boiler may be located in basement or utility room. Either one pipe or two pipe systems may be used to provide supply and return lines between boiler and radiators or convectors. A circulating pump, usually in the return water line, controls the flow of water through the system. An expansion tank allows the water in the system to expand or contract with changes in temperature. It also keeps boiler and radiators filled with water at all times. Forced hot water systems are frequently used with radiant panel installations.



# Set Dunham's "Dial"... You're Set For Better Heat

Turn the knob on Dunham's new damper and you're set for most effective heat distribution. Why overheat when it's so easy to "put the damper on" heat output? And why let air swirls and eddies cut down good convection when this Dunham damper directs air through the louver grille?

And since the Dunham grille is an integral part of the heavy, sheet steel front . . . there are no separate panels to rattle, no bolts or welds to loosen. Just a sturdy one-piece front and grille.

You're set for better heat ... for a longer time ... when you have Dunham Convectors. Write for further facts.





Send for Free Literature--Folders 1205-25 and 1206-25 give full information on sizes and types, design and construction details, plus complete capacity tables, For your free copies write to: C. A. Dunham Company, 400 W. Madison Street, Chicago 6, Illinois. Quality first for fifty years

ANOTHER QUALITY PRODUCT OF C. A. DUNHAM COMPANY-CHICAGO . TORONTO . LONDON APRIL 1953

259

GAS FIRED BOILER

the hottest baby you ever caught up with





★ It's a believe-it-or-not boiler ! Amazingly small... amazingly efficient... amazing fuel economy. This sensational new boiler helps builders offer every comfort of hot water heat with modern convenience and cleanliness of automatic gas heating. Almost as small as a kitchen chair, easily installed in kitchen, utility room or alcove. Six section boiler heats a six room house. Other sizes for larger residential and non-residential needs.

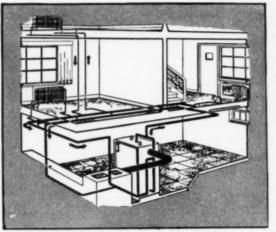
Blue Circle Burner is a ball of fire! Intense heat...dispersion-type flame spreader...turbulent scrubbing action, all combine to get the most out of every fuel dollar. Blue Circle wet base boilers can be installed on wood or linoleum floors. Write for catalog and prices.

ALSO BLUE CIRCLE OIL AND COAL FIRED BOILERS AND RADIATORS MADE OF CAST IRON, THE LIFETIME METAL

#### DUNKIRK RADIATOR CORPORATION Dept. AB-4, DUNKIRK, N. Y.

Please send catalog and prices on Blue Circle Boilers.

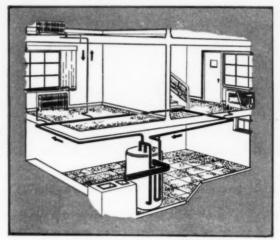




Courtesy York, Shipley, Inc.

## two pipe steam...

Two pipe steam heating systems differ from one pipe installations in that the condensation water returns to the boiler through separate pipes rather than through the pipe which supplies the steam. A trap at each radiator prevents steam from returning with the water. In basementless homes, where sufficient drop cannot be provided for return lines, a condensate pump is normally installed. This system is efficient in larger homes and commercial buildings, is generally more flexible in operation and eliminates the need for radiator valves. Automatic controls may be installed to regulate the system for both comfort and safety.

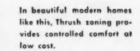


Courtesy York, Shipley, Inc.

# one pipe steam...

In the one pipe steam heating system, the boiler must be located below the level of the rooms to be heated. Steam for heating is generated in the boiler and rises through a large supply line. Single pipes from this line carry the steam to radiators where it gives off heat and condenses to water, which drains to the return line through the same pipe which supplied the steam. Air that may be in radiators or steam lines is eliminated through vents on the radiators. One pipe systems eliminate extra piping and offer economies of installation, particularly in smaller homes.

# **RESIDENCES, APARTMENTS, MOTELS, STORE BUILDINGS**



FOR COMFORT

Buildings may be zoned so that each apartment has individual control of temperature from a single boiler.

Zoning reduces operating costs for Motels.

JUST THESE SIMPLE UNITS NEEDED FOR EACH ZONE . . . a Thrush Water Circulator, a Thrush Radiant Heat Control (with Relay Transformer) and a Thrush Flow Control Valve.

# WITH THRUSH FLOW CONTROL SYSTEM

YOU CAN install low cost Radiant Hot Water Heat in every type of modern building and provide the greatest comfort with complete control of temperatures. Best of all, it is easy to zone any building or group of buildings with Thrush Flow Control System of Hot Water Heat, using a single boiler. This method provides individual heat control in each building, apartment or area of a home. It is ideal for use with radiant coils, radiant baseboards, radiators or convectors. For more information see our catalog in Sweet's or write Department G-4.

NDIANA

H. A. THRUSH & COMPANY

APRIL 1953



Thousands of experienced builders and architects depend upon the *complete* line of Bennett Fireplace Supplies — to save construction time, cut building costs and assure *full satisfaction* on every job! Every piece of Bennett fireplace equipment is designed from the builder's viewpoint . . . engineered for ease of installation, economy and top performance in the home. Build with Bennett — and *you'll* build a *better* fireplace!

# Benefize<sup>®</sup> Fireplace Unit — for a perfect fireplace every time

The simplified, standardized, recirculating fireplace form that includes scientifically designed firebox, throat, damper, down-draft shelf, heating chambers and smoke dome—all combined into one fool-proof unit! Heavy boiler plate construction throughout, in 6 sizes—every size lays up with standard brick, with no costly cutting or fitting. Fits any mantel design . . . circulates heat evenly . . . guaranteed not to smoke. To build your next fireplace quicker, easier, at less cost—build it around a Benefire Unit!



## **Bennett Standard Dampers**

Bennett fireplace engineers ... specialists in fireplace design for over 25 years ... have built into these Bennett throat dampers dozens of proven performance and construction features! Two types available ... of boiler plate steel or lifetime cast iron—both make your job easier, produce a finer fireplace at lower cost. See these Bennett Dampers—and the complete Bennett line of ash dumps, cleanout doors, lintel bars, etc.— at your supplier's.

# The amazing new Beneform Universal Damper

The exclusive new damper that puts "unusual" fireplace design within the reach of all! Any one of size basic fireplace types, including projecting corner, three sided openings, etc.— in a full range of sizes — can be economically built around BENEFORM. Gives plenty of added sales appeal to your homes—at very little added cost!

See your supplier... or write Dept. C for catalog

F



(Continued from page 253)

#### Fire Hazards Should Be Eliminated

Some of the more common fire • hazards over which the builder has some control (but the heating contractor very little) are:



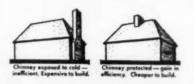
DUAL-WALL TYPE FLOOR FURNACE designed to be set under the wall between two rooms where there are no interconnecting openings

(1) Chinneys and pipes accumulate soot from soft coal. If chinneys "burn out" and soot catches fire, a danger spot exists if any combustible material touches the chinney, such as roofing or framing.

(2) Specifications exist for clearance between smoke and vent pipes and adjacent combustibles such as joists or partitions. Protect such surfaces!

(3) Smoke pipes should be short and well supported, so as not to serve as soot collectors. Fit sections together with screws and hang securely. Build to withstand any puffback short of an explosion. If the smoke pipe is long and has bends, it needs periodic cleaning.

(4) Thermostatic controls are primarily designed for temperature control for comfort. However, limitcontrols exist which can guard against excessively hot temperatures and will stop the stoker or gas burner



or oil burner whenever safe temperatures for furnace or boiler are exceeded. Safety should always precede comfort !

#### Weatherproofing Saves Fuel

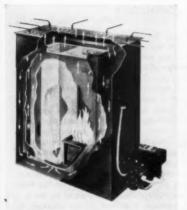
In remodeling an existing house, the following weatherproofing steps should be taken: (1) installation of storm doors and weatherstripping outside doors; (2) installation of storm sash, especially living room, dining room and sunroom areas; (3) insulation of ceilings; (4) insulation of sidewalls. (Listed last because most expensive.)

With new house construction, these steps are taken in reversé order. The minimum requirements for FHAmortgaged homes list the minimum values for transmission of heat for walls and ceilings. These are bare minimums and should not be considered desirable. In any case check over your plans with the heating contractor and let him specify allowable heat loss from each room so that provision can be made for necessary weatherproofing to provide comfort without putting unnecessary strains on the heating system.

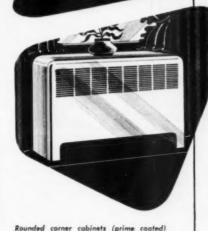
#### **Floor Furnaces**

The simplicity of floor furnaces has many virtues, chief of which is low installation cost. No ducts are required. The furnace needs no basement, uses no living space in any room. It requires very little skilled labor to install. Single units usually have sufficient capacity to heat four or five rooms in a small house.

A good floor furnace will circulate all the air in the heated space three to five times an hour without excessive velocities or drafts. The unit itself usually consists of a combustion chamber together with interior radiator sections to provide maximum heat transfer surface, all enclosed in a metal inner liner. Space between inner liner and outer jacket provides for cold air return to bottom of the unit.



COOL AIR flows from floor into separate chamber to come up through heating element of a floor furnace For warmth...and Beauty



Rounded corner cabinets (prime coated) blend with any construction, any interior design. Elements for steam or hot water. Units from 16 to 64 inches long, 4 to 10 inches deep, 20 to 32 inches high.

Bush

Modern heating at its best! Builders have discovered the many advantages of the Bush line of convectors. . . . Recessed convectors maintain clean, unbroken lines of modern rooms, preserve free floor space. Aluminum and copper finned elements promote quicker response to heat needs, mean greater economy of operation. Placed under windows, these units diffuse a blanket of heat at such "cold spots". They insure draft-free as well as dust.free heating.

Bush Baseboard Radiation

Bush Baseboard, like Bush Convector radiation, eliminates "wall streaking". Here is a modern heating unit built to satisfy the demands of engineers, builders and homeowners. Aluminum and copper finned tube elements mean economy of operation, quick response to heat needs. Uniform heat spread along the outside walls eliminates concentrated blasts of heat and consequent drafts and dust.



Available in flush or recess type for use with either hot water or steam. Coils available in aluminum and copper or all steel. Light in weight, neat in appearance, Bush Baseboard Radiation assures convenience and flexibility to the builder, comfort and eye-appeal to the homeowner.

THE BUSH MANUFACTURING CO.	
West Hartford 10, Connecticut	
Send me complete information on your Bas board and Convector lines.	
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Horizontal gas furnaces offer economies in space, as they may be installed under basement ceilings, in utility room ceilings, or below the floor in crawl space for basementless homes. Locating the horizontal furnace in crawl space has also many duct-saving features, which also apply General Electric Data

in basement locations below kitchen counter and work areas. Where furnace is installed in crawl space, all duct work can also be placed there so that no useful space is used by either furnace or ductwork.

#### Drafts Can Be Minimized

Good construction is more effective than extra heat in overcoming cold and drafts. Watch for these:

(1) Drafts near outside doors. Weatherstrip, Heat vestibules above normal room temperatures.

(2) Window frame leaks. Weatherstrip. Use storm sash. Caulk outside joints. Apply wool insulation around frame in construction.

(3) Baseboard drafts. Fill stud spaces in attic with insulation to prevent cold air coming down.

(4) Basements—leaky sills, leaking windows. Weatherstrip and caulk tightly. Cold basements make cool floors overhead.

(5) Drafts down stairways. Weatherproof second-story rooms.

(6) Drafts due to cold room surfaces, especially large window areas. Insulate cold walls and apply storm sash to windows.

(Continued on page 281)



#### USE OF FLOOR FURNACES

The simplicity of floor furnace heating systems has many virtues, the most important of which is the low cost of installation.

The one-story and ranch type homes are easily adaptable to the use of floor furnaces. Also, the open planning used today permits good circulation of heat to several rooms from a single unit. In large homes, zoned heating may be readily achieved through the use of several units, each individually controlled.

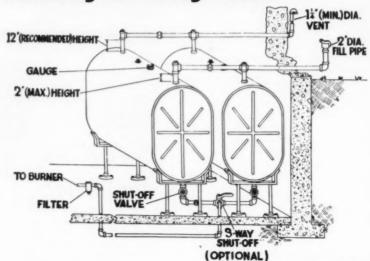
No ducts are required in installing floor furnaces. The result is a lower initial cost than that required with any other type of warm air heating system.

Floor furnaces are not usually recommended for two-story buildings, since it is difficult to provide for units to be located in the second floor. Therefore, for all general purposes, a floor furnace heating system should be confined to one-story buildings. Occasionally furnaces can be installed at foot of states so as to do a reasonably good job of heating second floor.

With the dual wall furnace, it is possible to heat two adjoining rooms with the connecting doors closed. It is especially suited for use between two bedrooms, a bedroom and hallway, between two connecting rooms where it is desired to close one off occasionally, or where the arrangement prevents proper air circulation for efficient heating with conventional floor furnaces. The installation of a dual wall furnace between a bath and an adjacent room is not recommended.

Courtesy The Coleman Co.

# installing oil storage tanks.



Courtesy Williams Oil-O.Matic

When installing the auxiliary equipment such as the fuel oil storage tank and piping, good material together with skilled workmanship is important. Most cities have certain rules and regulations governing the installation of such equipment and each builder should know existing local regulations.

Fuel oil storage and the delivery to the oil burner is a matter which comes up on every burner installation. This equipment may be divided into two groups:

- Oil storage in a tank or tanks in the basement installed above the burner level.
- 2. Oil storage in a tank buried underground outside the building.

INSIDE STORAGE TANKS. The tank arrangement wherein the oil supply is stored within the basement is the more common type, probably because of the lower installation cost. Providing that local regulations permit. two 275 gallon storage tanks, giving a total storage capacity of over 500 gallons, may be used. This arrangement is in accordance with the rules and regulations of the Underwriters' Laboratories.

All such storage tanks should bear the Underwriters' label. Obround tanks are preferable in that this construction considerablyreduces the door clearance necessary to allow passage of the tank.

The inside tanks must be mounted on legs of some non-combustible material. Usually iron pipe is used, the fittings on the tank determining the size of pipe to be used. A suitable approved gauge screwed in the top of the tank for indicating the amount of all is normalisable but in

the top of the tank for indicating the amount of oil is permissible but in no case should a glass level gauge be used. UNDERGROUND STORAGE TANKS. In



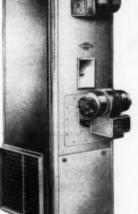
"With Delco-Heat I know I can guarantee winter comfort in the homes I build!" - says Mr. J. J. Glickman, River View Village Corp., Wappinger Falls, N. Y.



# Delco-Heat helps sell homeskeeps buyers happy

#### MODEL OPC-H OIL FIRED CONDITIONAIR

Quick action heat transfer unit delivers more heat to homes, less lost up the chimney. Capacity 75,000 Btu. per hour. Centrif ugal Blower and Burner driven by Delco-built, quiet, vibration - free Rigidframe Motors. High, low and Reverse Flow models for perimeter heating available.



The Effron Fuel Company of Poughkeepsie, N. Y., has installed over 1,000 Delco-Heat Conditionairs in Dutchess County alone. Typical of builder response is this statement by Mr. Glickman, who goes on to say, "After 50 years of building experience using many different types of heating equipment, we chose Delco-Heat because it meets the requirements of the most critical buyer. Our customers tell us the units are very economical in fuel costs and maintain even temperatures in every room of the house."

Whatever the system, whatever the fuel, your Delco-Heat Distributor has the answer with these nationally-advertised units, backed by General Motors, that help sell homes faster. See him today or write: Delco Appliance Division, Dept. B4-53, General Motors Corp., Rochester 1, N. Y.

GENERAL MOTORS General Motors Engineering Delco Production Skill

... your keys to Sales Success

DEAL WITH DELCO

For a good deal-

# Glazing the Air-Conditioned Home

#### WHY AIR CONDITIONING CALLS FOR SPECIAL CONSIDERATION OF WINDOWS

Windows are possible sources of heat gain in summer, just as they may waste heat in winter. That's why, in airconditioned homes more than ever, windows must be thoughtfully planned to give home buyers the comfort they want, and to assure efficient and economical operation of the air-conditioning system.

#### YOU HAVE THESE CHOICES FOR BETTER HEATING AND COOLING:

- Resort to old-style, small windows to reduce heat loss and heat gain.
- Use insulated windows. There are two ways to do this:
   a. Storm sash on all windows the year 'round.
  - b. Sealed insulating glass in all windows.

#### SMALLER WINDOWS

Smaller windows have steadily lost favor with architects, builders and buyers. Home buyers have shown a tremendous and continued desire for picture windows and window walls. To give them smaller windows would be a backward step that is sure to run into sales resistance resistance which would be felt by builders, architects, real estate people and air-conditioning people, too.

#### INSULATED WINDOWS

Insulated windows, the other possibility, are a more logical and saleable answer to glazing for air-conditioning and heating economy. With insulated windows you reduce heat loss in winter and heat gain in summer. They save fuel in winter and power in summer, and help make the house more comfortable the year 'round. Consider the two ways of insulating windows:

**1. Storm sash** is one means of window insulation. They can be left in all year to provide summer as well as winter insulation. But they must be taken down periodically for washing, since dirt and moisture will infiltrate between them. And storm sash in sizes required for today's larger windows are unwieldy.

2. Sealed double glazing allows the use of large windows for daylight and view without the bother of storm



sash. More and more builders have been putting *Thermopane*\* insulating glass in medium and low-price homes just for its winter benefits. Now, in the airconditioned home, these be-



Architect Everett V. Welch, Dallas, Texas, used Thermopane insulating glass in this air-conditioned home in Dallas. Says Mr. Welch: "This resulted in savings on both heating and a'r conditioning, first from the standpoint of initial cost and second, from the standpoint of operational cost".

come year-round benefits and the extra cost of double glazing is doubly justified. The extra cost is minimized by the use of standard size units, standard sash and simplified installation methods.

The table below shows *Thermopane's* effectiveness in cutting down heat transfer by conduction and convection from the warm to the cold side. *Thermopane* saves, roughly, half of the money that would be wasted through single glass by these forms of heat transfer.

Kind of Glass	Thickness	Winter U. Value	Summer U. Value
Single pane	1/6 "	1.16	1.07
(plate or sheet)	1/4 "		1.06
Thermopane	1/2" (1/4" air space)	.65	.61
(double-pane units)	1" (1/2" air space)	.58	.56

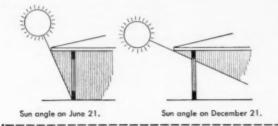
NOTE: Heat transmission coefficients (U. values) vary with ranges of temperature. Winter U. values above are based on  $10^{\circ}$  outside temperature,  $70^{\circ}$  inside temperature. Summer U. values are based on  $95^{\circ}$  outside temperature and  $80^{\circ}$  inside temperature. Wind velocity of 15 mph outdoors and normal free air movement inside are assumed in both cases.

#### HOW TO PLACE WINDOWS IN AIR-CONDITIONED HOMES

Insulation, alone, is not enough. Location and exterior shading of windows are vitally important if heating and air conditioning are to work with maximum effectiveness and economy. Energy from the sun and sky place by far the biggest load on air-conditioning systems in homes. The house should be located to make maximum use of the sun for winter warmth, but must have provision for shading certain windows in summer.

#### SOUTH WINDOWS

To make maximum use of solar heating in winter, the house should be laid out along an east-west axis, with large windows facing south. This brings in the low winter sun for fuel savings and comfort. South windows are easily protected from high summer sun by a roof extension (so designed that the low winter sun enters under it). The diagrams below show how this works. For correct design information for this overhang, see an architect or engineer. Most of them are equipped with the necessary guides to figure it out for your latitude.





This exterior view shows how Architect Welch provided a roof overhang to shade south windows from the sun in summer.

#### WEST WINDOWS

West windows must be more carefully considered than those on other elevations. Due to the buildup of heat through a hot summer day and the fact that the west elevation is exposed to the low afternoon sun, heat transmission through west windows can place a great load on the air-conditioning system. There are several possible ways to handle the west elevation problem:



1. Some architects and builders solve this problem by placing the porch, garage, carport or utility room on this side of the house.

2. If there are large trees on the site (or if they can be added) to shade west windows, the problem is solved by nature. The leaves provide summer shade—the bare branches let the welcome winter sun come through.

3. Heat absorbing glass is an effective means of decreasing solar heat gain. This blue-green glass is made with a special chemical composition which enables it to absorb solar energy. Much of this heat is dissipated back outdoors, so that less load is thrown on cooling equipment. For best results in west windows, therefore, *Thermopane* should have heat absorbing glass as the outer pane. This heat absorbing *Thermopane* reduces the heat gain through west windows approximately 50% as compared to single-pane, clear glass windows. This has been determined by calculations made for west windows at 4:00 P.M. in summer, when the sun is considered to be at its worst angle. By reducing the cooling load, heat absorbing *Thermopane* may even reduce the size of the air-conditioning equipment required for the home.

#### EAST AND NORTH WINDOWS

North windows rarely present a problem of radiant heat gain. Windows in the eastern elevation, if exposed to the morning sun, may require shading as suggested for western windows. An engineer's or architect's recommendations should be obtained on this.

#### TYPES OF SASH TO USE

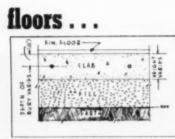
Some architects and builders employ fixed sash in airconditioned homes, relying on the heating and airconditioning system to provide ventilation. In some cases, louvers or other kinds of openings are used for supplementary ventilation. Fixed sash are usually economical and they do away with the need for insect screens in windows. Standard picture window and window wall frames are available from a number of manufacturers through their dealers—frames of wood or metal. These frames take standard sizes of *Thermopane* insulating glass which is readily available from L·O·F Distributors and Dealers.

However, many people will insist upon having ventilating sash in their homes for psychological reasons and because they may want to use natural ventilation in the more moderate seasons of the year. Their preferences can be satisfied with ventilating sash which take standard *Thermopane* units. These sash, of wood or metal, are available in all common types. Your LOF Glass Distributor or Dealer can furnish information about them and about standard *Thermopane* units for them. Or, write us if you wish more complete information on *Thermopane*, its standard sizes and types of sash for it.

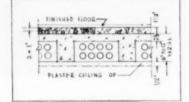
These two pages are a condensation of a brachure that covers the entire subject more fully with additional technical supporting data. We shall be pleased to have you write for a copy of "Glazing the Air-Conditioned Home".

Libbey · Owens · Ford Glass Company, 343 Nicholas Building, Toledo 3, Ohio

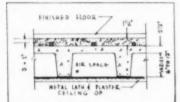




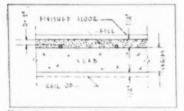
Concrete slab with 6" to 10" of gravel, stone, or insulating fill, tubes in slab. Dry earth or sand fill underneath. Finish floor may be tile. linoleum, wood or other.



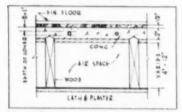
Intermediate floor panel with concrete slab, cement fill with hollow gypsum block fillers, tubes placed in fill. Ceiling below may be plain or plastered: finish floor may be ceramic tile. linoleum, or wood.



Intermediate uninsulated concrete slab with cement fill, concrete joists, an all "metal pan" system with tubes in fill, Hung plaster ceiling below. Flooring above may be wood, ceramic tile on slab. or linoleum on slab.



Uninsulated intermediate floor panel is concrete slab without fill, tubes in slab, with plain or plastered ceiling below. Finished floor above may be either wood, linoleum on slab, or ceramic tile.



Intermediate floor panel has wood subfloor, wood joists, light weight concrete slab with cement fill, tubes located in fill. Ceiling below is lath and plaster. Finish floor above may be linoleum or ceramic tile, or single wood directly on slab.

#### RADIANT PANELS

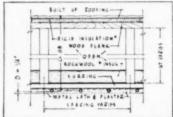
#### INSTALLATION PRACTICES FLOOR AND CEILING PANELS

- Boilers should be automatically-fired. The control of water temperature in hand-fired installations is not close enough for panel heating.
- 2. Slab floors, whether or not they are used as a heating panel, must be provided with at least 1" waterproof edge insulation at least 24" deep or to the bottom of the frost line. The use of a waterproof membrane (vapor barrier) between the gravel fill and the slab is recommended.
- 3. All pits should be provided with drains.
- 4. Where panels do not cover the entire area of the *floor or ceiling*, the coil should be located near the exposed perimeter.
- 5. All pipe ends should be reamed.
- Connections between pump and hoiler should be as close as possible.
- Wherever the size of pipe changes in a horizontal run, use an eccentric reducer, keeping the top side level.
- 8. Drains should be installed at all low points.
- All high points should be vented. Vents should also be installed where the plane of the system changes.
- Balancing cocks or valves should be used on each coil. They should be installed below traffic plates for *floor* panels, and with extended stems, if necessary, for *ceiling* panels.
- 11. A mixing or tempering valve should be used to control the temperature of the water to the heating system if the boiler is used also to supply domestic hot water. This valve should be connected in accordance with maker's recommendations.
- 12. A flow control valve should be used when the heating panels are above the boiler and the boiler is used also to supply domestic hot water.
- 13. A pressure relief valve should be installed on the boiler.
- 14. The air cushion tank should be located above the boiler.
- 15. Coils should be filled with water very slowly in order to vent them properly.
- 16. The entire piping system should be tested to a hydrostatic pressure of 100 p.s.i. for a minimum of four hours before being connected to the boiler and before being concealed.

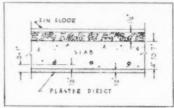
# ... ceilings

2

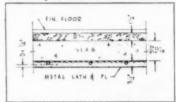
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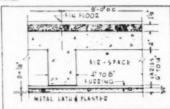
Insulated flat roof panel showing built up roof with wood deck, wood or steel trusses. Furring is required. Tubes in plaster below metal lath. To increase reverse conductance, add rock wool or equivalent insulation.



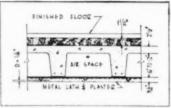
Uninsulated intermediate ceiling panel shows concrete slab with optional cement fill, tubes located in slab. Ceiling is gypsum plaster applied direct to slab. Floor above may be wood, linoleum or other.



Intermediate ceiling panel has concrete slab with cement fill optional. Tubes are located in the plaster which may be either gypsum or cement applied direct on metal lath.



Uninsulated intermediate ceiling panel shows cinder concrete slab and joists with optional cement fill. Tubes are in plaster below metal lath which is furred to slab. Add Rockwool or equivalent insulation to obtain reverse conductance.



Intermediate ceiling panel has concrete slab and joists—a prefabricated system. Cement fill is optional. Tubes are in plaster below metal lath which is attached directly to concrete joists.  Because of variable conditions, controls should be selected and installed in accordance with control manufacturers' recommendations.

#### FOR FLOOR PANEL SYSTEMS:

- Coils should not be laid on nor come in contact with cinders or other corrosive fill.
- Coils should start 6" from the exposed perimeter of a floor slab.

#### FOR CEILING PANEL SYSTEMS:

- 20. All ceiling panels should be backed by insulation whether or not there is heated space above. When panels are exposed to unheated space, at least 35%" rock wool insulation or equivalent is recommended.
- 21. For ceiling panels it is advisable to design the coils so that the tube runs at right angles to the joists, which will give better support.
- 22. Coils should start 3" from the exposed perimeter of a ceiling.
- 23. Coils in ceiling panels should not be used to dry the plaster. The first time heat is applied in a new installation, the temperature of the coils should be raised only a few degrees daily.

Where coils go into ceilings, expanded metal lath is preferred for the plaster base, with the coil above the lath and attached to the joists. Where coils are below the plaster base, plastering time is usually tripled and much more plaster is required. Acoustical or other insulating tile should not be used for ceilings in which the coil is to be located. Panels installed in dead air space between floors are ineffective.

Insulation should be used to reduce heat flow in reverse direction to that desired. Where reflective insulation is used, the reflective surface should face the warm side but not be in contact with it; there should be an air space on both sides of the insulating material of at least 3/4-inch. Vapor barriers under floor panels are essential.

Leaks and corrosion of pipes present no greater problem than in other "closed systems." The choice of piping is unimportant from the standpoint of heat output, but per foot cost, plus installation cost, and labor must be considered. Size of pipe has little to do with heat output either, but definitely determines booster pump capacity required.



VITROLINER prefabricated CHIMNEY



#### Save Time—Money—Space

Speed up construction time with this packaged Vitroliner chimney by eliminating all masonry work. It is a complete chimney designed for 1 or 2 story homes or building using ANY fuel. Made in sizes 6", 7", 8" and 10" diameter.

The Vitroliner Chimney is lightweight and weighs only 10-15 lbs. per foot and installs easily and quickly in approximately 1 man hour. It can be mounted between ceiling joists directly over the heating plant.

Tailor-made and packaged at the factory to fit the individual building —no cutting or fitting at the time of installation.

Vitroliner gives more draft than a comparable masonry chimney and also provides attic ventilation.

Quality built for long life. Accepted by F.H.A.—listed by Underwriters Laboratories and approved by local authorities.

Investigate this modern low-cost prefabricated chimney today!

CONDENSATION ENGINEERING CORPORATION S11 W. POTOMAC AVE., CHICAGO SI-ILL.

APRIL 1953

# the greatest selling feature

#### IN TODAY'S HOMES



Year-round air conditioning is the hottest thing in the home market today. It's just what the customer wants . . . it's just what the builder needs to close that sale! And Typhoon has the most practical home air conditioner you can install. One compact unit that heats in winter, cools in summer with the touch of a single button. To put irresistible sales appeal in the the houses you build, call Typhoon today.

#### 44 YEARS OF COMFORT ENGINEERING IN THESE EXCLUSIVE TYPHOON FEATURES!

ONLY TYPHOON has completely automatic changeover design — onebutton for switching from heating to cooling; no dampers to manipulate!

ONLY TYPHOON has an all-copper condenser—it defies rust and corrosion, gives trouble-free service.

TYPHOON is a miracle of compactness —takes up less space than any other unit, can even fit into a standard closet!

SIMPLE TO INSTALL-just a few quick

TYPHOON

connections and within hours your Typhoon unit is ready to function.

**INEXPENSIVE TO OPERATE**— Engineered to the point of greatest economy consistent with dependable performance.

QUIET — Completely insulated heavygauge steel cabinet and floating spring base assure quiet operation.

FACTORY TESTED — Every unit is thoroughly checked for performance before shipment.



.....

#### A FULL line of Residential Models!

There's a Typhoon residential year-round unit to fit any specification. Oil or gas-fired, water or aircooled, upright or counterflow—you'll always have the answer with Typhoon S-W Units!

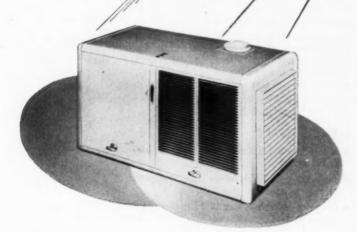


AIR CONDITIONING CO. INC., 794 Union Street, Brooklyn 15, N. Y. Specialists in Air Conditioning Since 1909

270



### modern buildings need . . .



#### modern heating equipment

It's Reznor PAC, new, simplified gas-heating unit for homes, offices, stores and industry.

Completely automatic, fully-enclosed Reznor PACs are easily installed as single or group-controlled unit heaters that clean the air as they heat it.

Connect Reznor PAC to regular duct work and you've got the most compact, efficient and salable central home heater on the market, fully approved for all types of conventional perimeter, micro-duct and other forced-air heating systems.

You can put it in the basement, utility room, attic or any crawl space. Reznor PAC, handsomely encased in grey-green cabinets, mounts on wall, floor or ceiling. 75,000 BTU unit takes up about 22" x 23" x 40" space. Bigger capacity units are slightly longer.

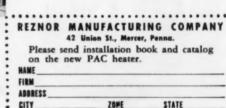
#### get the facts now about fast-selling new multi-purpose REZNOR PAC



REZNOR

WORLD'S MOST ACCEPTED NAME IN GAS HEATING EQUIPMENT

PAC AS CENTRAL HEATER PAC AS UTILITY HEATER



SEE SWEET'S CATALOG FILES

# CONTROLLED CLIMATE... \$105 per sq. foot!



Model of actual Trade Secrets House, Dayton, Ohio.

This Trade Secrets House just completed in Dayton, Ohio, has Year 'Round "Controlled Climate." And the builder's total cost installed and ready to operate—was only \$1.05 per sq. foot!

The 96000 B.T.U. of heating and 3 H.P. of cooling keep this modern home of 1340 square feet in the Comfort Zone—regardless of extremes of outside weather. Air is cooled and dehumidified in summer; heated and humidified in winter . . . and it's filtered and circulated every day of the year.

Year 'Round Air Conditioning by Chrysler Airtemp can help you sell your homes easier.

#### **HERE'S WHY:**

- The Chrysler Airtemp name is known . . . through consistent national advertising.
- 15 years of residential installation experience! Chrysler Airtemp offers a time-tested package.
- Chrysler Airtemp stands behind its products! An authorized dealer network eliminates your service callbacks.
- The Chrysler Airtemp optional five-year warranty helps create customer confidence.

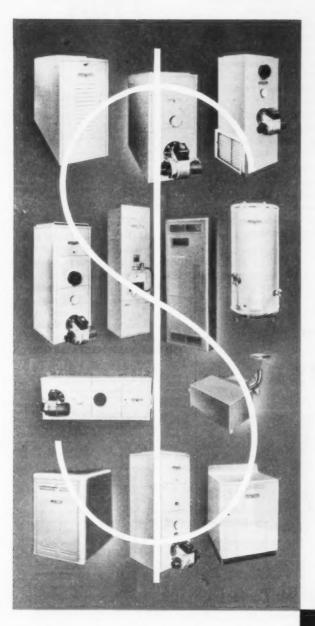
Get all the facts on "Controlled Climate" today.

HEATING . AIR CONDITIONING for HOMES, BUSINESS, INDUSTRY

Airtemp Division, Chrysler Corporation, Dayton 1, Ohio

Airtemp Division, Chrysler Corporation P.O. Box 1037, Dayton 1, Ohio	<b>AB</b> -4-53
Please send full details about the Chrysler Airtemp Com	fort Zone "Controlled Climate."
Name	

# Over 135 ways to make money



# with Borg-Warner's Norge Heat

With Norge Heat you get a choice of over 135 different domestic heating units, and a line that is being continuously expanded to include every new and worthwhile development in year 'round air conditioning.

You can knock the bottom out of handling costs and add these savings to your regular profit because Norge Heat units have many applications, are unusually compact, and simple to install.

Whether you are thinking of gas, oil, or coalfired heating equipment, you can get what you want when you want it from Norge Heat. No need to waste time and go to the expense of dealing with many suppliers. And, you are assured of a name backed with the reputation and resources of Borg-Warner Corporation.

Get the complete Norge Heat success story and descriptive literature today – see your Norge Heat dealer, or write or wire direct: Norge Heat, 346 E. South St., Kalamazoo, Mich.

#### A UNIT FOR EVERY APPLICATION-EVERY FUEL

Summer-Winter Air Conditioners Gravity Furnaces • Stowaway "Packages" Convertible Furnaces Boiler-Burner Units • Water Heaters



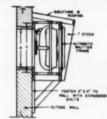
# GUARANTEED to help you sell



#### 1. Improved Heat Exchanger Gives More Heat.

- 2. Aluminum Foil Faced Fiber Glass Insulation,
- 3. Burner Plate Easily Removed 4. Oil Burner Interchangeable
- with Gas Burner. 5. Stainless Steel Combustion
- Chamber. 6 Removable Vestibule Door.
- 7. Single Exhaust Vent.
- R. No Metal to Metal Contact
- at Division Panel.
- 9. Two Large Air Filters.
- 10. Quiet, Powerful Blower.
- 11. Solid Base with Leveling Screws.
- 12. Radiator Side Pans Increase Heating Surfaces.

# farm fan installations



#### OUTSIDE WALL INSTALLATION

Fan may be mounted on the outside of the barn wall. Housing may be constructed merely by covering the shipping crate with rooting or drop siding, or by building a simple metal box of 20-gauge galvanized iron, as shown above. The fan is bolied to an angle iron frame which is spot welded to the inside of the metal fan box. Depth of the fan box may be reduced where it is possible to extend the unit into the wall opening. The automatic shutter lostens to the front of the housing with metal screws.

#### All MOR-SUN HEAT EXCHANGERS guaranteed for 10 years



You have no heating guarantee problems when your homes are equipped with MOR-SUN Warm Air Conditioners. You have no guarantee worries because MOR-SUN backs up the Center of Efficiency of its furnaces with a bona fide 10 YEAR GUARANTEE on all its Heat Exchangers. Other elements of the MOR-SUN Furnaces carry a one year guarantee. The improved MOR-SUN Heat Exchanger means added value, too. It is seam welded of heavy gauge steel and engineered to give top performance with MOR-SUN Gas or Oil Burners. Its larger radiation surfaces step up heat transfer — deliver more heat per fuel dollar. MOR-SUN Furnaces are the "answer" for Builders who demand more quality in their homes ... they are guaranteed so that your selling will be easier.

Distributed throughout the United States and Canada



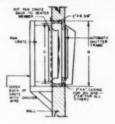
Available in two and three ton capacities with built in plenum and damper control to switch from cooling to heating when used with MOR-SUN Furnaces.

## For MORE VALUE with MOR-SUN ... Mail this Coupon!

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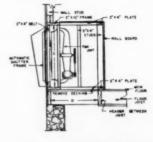
	nace Division, Morrison Steel Products, Inc. Street, Buffalo 7, N.Y.
	Send illustrated booklet showing inside reasons UN Warm Air Furnaces add VALUE to my homes.
NAME	
ADDRESS	
	ZONE STATE

Also manufacturers of Roly-Door Steel Sectional Garage Doors and Carry-All Truck Bodies



#### INSIDE WALL INSTALLATION

The fan may be mounted merely by setting the unit in a wall opening of the proper size, as shown above. The lan oritice projects into the wall opening and the automatic shutter is mounted flush with the outside wall line. Overall depth of the fan is reduced by cutting off the shipping crate close to the steel fan frame on the discharge side. Construct a light frame the same size as the shipping crate, cover with protective wire, and fasten over the intake side of the fan as a guard.



#### HAY MOW INSTALLATION

Cutting wall openings in heavy masonity construction may be avoided by mounting the fan above the mow floor. See table above for dimensions of the floor and wall opening. Build a housing to connect the fan to the floor opening. The fan is removed from the shipping crate and mounted on the 2" x10" frame. Fosten the unit in place with 1/4" x11/4" lag bolts, using present holes in flange of the steel frame. Since the vent box is usually covered with hay, the fan is serviced through the four openings. Hunter Fan Data

# HAD BETTER LOOK INTO

THIS

FOR HOME, Office, Apartment, Motel, the BRILLIANT FIRE continues to, get first call among in-the-wall Heatmakers. And rightly so . . . it's so compact, so practical. It is simple to install, operate, regulate . . . thriftwise on fuel, too. Has low-level heat delivery to insure Living Zone comfort . . . no sweating, no odor. Requires no floor space . . . panel projects but  $3^{1/2}$ " from wall. The BRILLIANT FIRE comes complete in super-insulated Wall Box . . . all ready to attach flue and gas line. Included are built-in Draft Diverter and Safety Pilot. Automatic Controls optional. Offered in Single-Room and Dual-Room models. Sizes range from 17,500 Btu upward. Engineered for All Gases . . . and for High Altitude operation. Wall Panel is richly finished in Opalescent Beize baked enamel.

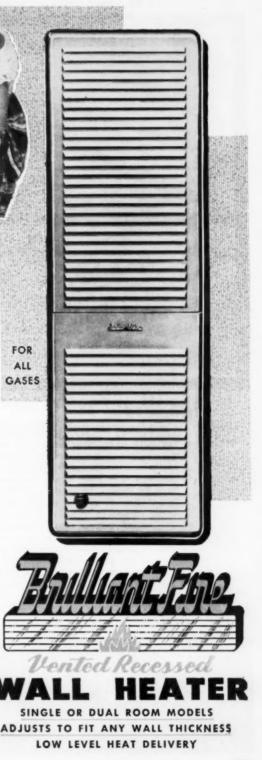
#### NOTE THESE FEATURES

- Designed to install in any Inside or Outside standard wall (2" x 4" studding; 16" centers). Dual-Room models for Inside walls only, of course.
- Telescoping Wall Box adjusts to exact wall thickness (plaster, fiberboard or other variables) without extra parts or special tools. Adjustment of 11/2" provided at each panel, merely by loosening a few screws.
- Rugged, all-steel Header included to securely anchor and align Heater in wall ... and support flue.
- Combustion Chamber head is cast of heat-resistant iron . . . takes impact of flame, assures lifetime service.
- Heating Section is gas-tight from burner to flue . . . 100% welded. Especially designed Tubes extract maximum heat from fuel. Burner has raised ports, is non-clog.
- Safety Pilot and Draft Diverter are standard equipment, all models. For City Gases, Gas Pressure Regulator is also included.
- Wall Panel is in 2 sections. Snap-on Service Panel (lower) removes in a jiffy, handy for lighting.
- Convenient Manual Control . . . it regulates main burner without interference to auto-control operation.
- All sizes of Heaters are shipped as Basic Models. Thus, Automatic Controls can be drawn from modest stock . . . are easily installed, as required.

#### WRITE FOR CATALOS NO. 5W AND PRICES

THE OHIO FOUNDRY & MANUFACTURING CO., STEUBENVILLE, OHIO

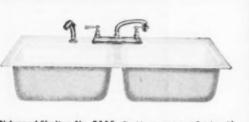




# **Here's The Modern Line** In Enameled Cast Iron Sinks!



Richmond Serbin No. 1585-Double comportment, double drain-Ristmont Bersen No. 1363-Double comparison, equips when beard with ledge-back. Sizes: 72 '' x 25'' and 60'' x 25''. Serville No. 1335-Single compartment, double drainboard with ledge-back. Sizes: 60'' x 25'' and 54'' x 25''. Seymour No. 1537-Single compartment, double drainboard with ledge-back. Sizes: 60'' x 22'' and 54'' x 22''.



Richmond Schenley No. 1550-Single compartment, single drainboard with ledge-1 530—single compariment, single drainboard with ledge-back. Size: 42" x 25". No. 1550—Left drainboard; No. 1552—Right drainboard. Sewanee-Single compa single drainboard with ledge-back. Size: 42" x 22". No. 1554 — Left drainboard; No. 1556-Right drainboard.



1

Richmond Stratton No. 2110-Single compartment, flat rim with

9-27

Richmond Shelton No. 2115-Double compartment, flat rim with ledge. Sizes: 42" x 21" and 32" x 21"

## Richmond

#### sinks for every type of installation!

For built-in counters-flat-rim sinks with single or double compartments. With or without ledge for deck-type fittings. For base cabinets-ledgeback sinks with single or double compartments, single or double drain-

boards. For installations where space is at a premium — compact sink and tray com-



binations-ledge-back and flat rim. For economical replacements - wall-hung roll rim sinks, single drainboards (left or right).

IOND RADIATOR CO. - ASSILIATE OF REYNOLDS METALS CO

# Richmond

ledge. Sizes: 30" x 21" and 24" x 21".

sinks in rugged enameled cast iron! Durable cast-iron base with easy-toclean, acid-resisting enamel for lasting beauty.

## Richmond

#### sinks in "whiter-white" or decorator colors!

Your choice of "whiter-white" or four modern pastel colors for cheerful, colorful kitchens.

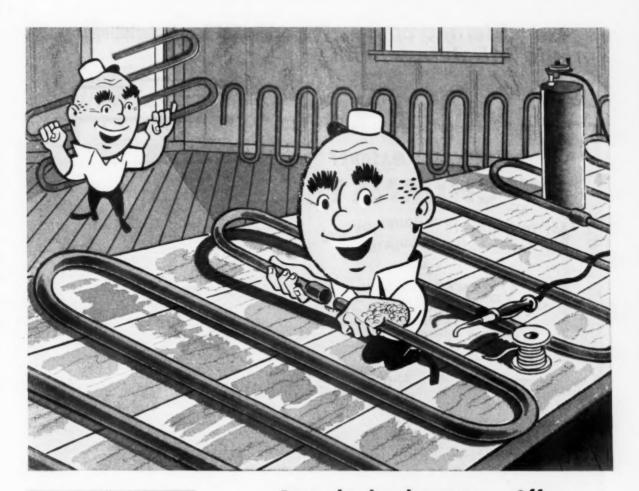
#### Richmond

#### sinks that are sure to satisfy!

Richmond quality kitchen sinks assure customer satisfaction. Specify plumbing fixtures that carry the Richmond guarantee.

See your wholesaler or Mail Coupon Today:

Ric 19	hmo Easi	nd R 47	adi h S		e (	N	mp sw	Y	or	k 1	7			w	Y	01	k		A	8	4
the	Ric	sen hmo lion,	nd	line		f	ini	for	ir	on	•	-		d	-	te	ro si	nk	IF 4		No
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#### Key to Low Cost

Bundyweld is the only tubing double-walled from a single strip, copper-brazed through 360° of wall contact. It's leakproof, thinner-walled, yet stronger. It transmits heat quickly, has high bursting strength. It saves on material costs and installation time.

Standard 20' lengths of Bundyweld are easily formed into coils in shop or on job site. Expanded ends (furnished when specified) are quickly soldered into leakproof union. Joined, lightweight coils are easily mounted onto ceiling, quickly plastered over.

Ce

# Beat the bandwagon . . . Offer Bundyweld Ceiling Radiant Heating NOW

Remember yesterday . . when sleek, modern kitchens and colorful bathrooms sold houses for you? Everybody got on that bandwagon. So today you need a new clincher.

And here's the answer . . . Bundyweld Ceiling Radiant Heating. It's the band-wagon of tomorrow, and you can get the jump on it today!

Now you can offer a house where every room has the clean, refreshing, all-over warmth of a day in May. You can promise a tested, trouble-free heating system that practically brings the sun indoors, yet costs less to run. That's sales appeal!

You won't have to sell your prospects

on this wonderful new system. Bundy ads have already done that. Millions of people have read them in Better Homes and Gardens, American Home, Small Homes Guide, and House Beautiful. Requests for literature are pouring in. Buyers everywhere are writing for the names of architects and builders who handle Bundyweld Ceiling Radiant Heating in their areas. Start now to cash in on this terrific public interest. Send for your Bundy literature today.

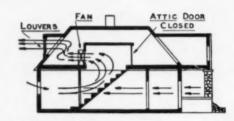
**Radiant Heating Division** BUNDY TUBING COMPANY Detroit 14, Michigan

SEND FOR	Radiant Heating Division, Dept. AB			
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LITERATUREI	Bundy Tubing Company, Detroit 14	, Mich.		
A	Send free 20-page nontechnical brochu Radiant Heating.	ure explaining	Bundyweld	Ceiling
	Send Bundy technical radiant heating	pamphlet.		
IN YOUR CEILING	Name		Title	
	Company			
Bundyweid	Address			
iling Radiant Heating	City	Zone	State	,
	-			

cut chimney costs avoid job delays with

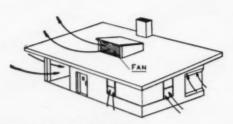


#### residential fan installations



#### Fan Installed Over Stairway

Homes which have a stairway to the attic are often enclosed as illustrated above. The fan is mounted over an opening in the enclosure, eliminating the necessity for a ceiling shutter or grille. By keeping the door to the attic closed, air is drawn through open windows in rooms below, exhausted into the attic, and forced out through attic discharge openings.



#### Fan Installed in Louvered Pent-house

Flat-roofed buildings usually require cooler fans more than any other type of structure since heat radiates from the roof directly into rooms below. A penthouse of either wood or metal may be constructed over a centrally located ceiling opening. Fan may be installed either vertically or horizontally, exhausting directly outdoors through a louvered opening. Ceiling shutters are available for either horizontal or vertical installation.

INDOW	FAN	/		-	-
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#### Fan Installed in Attached Garage

Attached garages often prove a desirable place to locate the home cooler fan. This is particularly true in modern homes with roof-line ceilings or butterfly roofs and without basements. The fan is mounted in the garage, outside the house wall opening with a suitable grille on the room side of the home. By building a housing around the fan frame, an automatic outside shutter may be mounted in front of the fan to close the opening when the fan is not being used.



#### Fan Installed in Basement Window

When the usual attic or roof installation of a home cooler fan is not practical, the basement may provide a suitable place for installing the fan. If basement windows are large enough, the fan may be mounted directly on the window frame or a suitable opening made and equipped with an automatic outside shutter.

# **B&G** Hydro-Flo Heating OFFERS ALL THESE

Extra Advantages

The family in this illustration is enjoying four comfort advantages of B & G Hydro-Flo Forced Hot Water Heating.

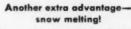
First, *radiant* sunny warmth! Second, the area around the low picture window is comfortably heated. Third, room air temperature from floor to ceiling and wall to wall is virtually uniform. And finally, the floor is warm.

Now add this! Regardless of how the weather changes, the temperature in this home will temain constantly at the comfort level. The variable water temperature of B & G Hydro-Flo Heating permits close matching of the heat input with the heat loss...assuring more comfort on less fuel!

For the complete story, send for booklet "Capture the Sun with B & G Hydro-Flo Heating."

# 

Typical B & G Hydro-Flo Forced Hot Water Heating installation with tankless domestic water heater.



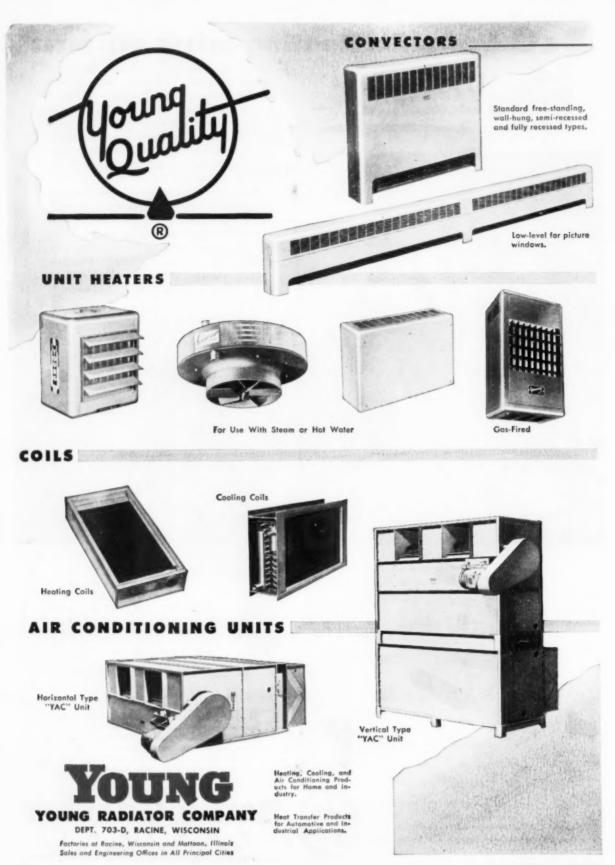
The home or building with B & G Hydro-Flo Heating can be equipped with an auxiliary snow melting installation. Hot water from a heat exchanger connected to the boiler is pumped through pipe coils under the sidewalks, melting snow as fast as it falls. Another back-breaking job eliminated!

#### Plus year 'round hot water

The heavy domestic hot water load imposed by modern automatic clothes and dish washers is easily handled by a B & G Hydro-F/a Heating System. The Water Heater unit, heated by the same boiler that heats the house, provides ample quantities at low cost -24 hours a day—winter and summer.







280

AMERICAN BUILDER

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1

#### (Continued from page 264) Radiant Heating With Warm Air

Radiant heating with warm air is accomplished with a closed system utilizing air instead of water but channeling it through ducts from furnace-heating chamber and returning cooler air to the furnace, much as hot water is carried through the closed hot water systems.

It is assumed that air and water flow in much the same manner; consequently, with the first duct or tile channel supplied with warm air being the last to return to the furnace, grids or ducts are laid out to insure uniform air flow.

Most standard forced warm air furnaces can be used, except that filters and automatic humidifiers are unnecessary. Floor ducts can be tile, brick baffles, or other inexpensive materials. For economical and comfortable operation, systems should be designed for floor temperatures of 85 degrees F, maximum.

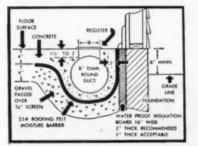
One important consideration is heat loss off the end of the slab. Insulation should be provided here as well as below the floor ducts to prevent heat loss and moisture and vapor accumulation.

Calculations necessary to install such a system include heat loss, furnace bonnet temperature and entering air temperature at channels, C.F.M. of blower and static head against which it is to discharge.

#### Perimeter Warm Air Heating

Perimeter warm air systems heat homes comfortably by adding enough warmth to replace the heat which is lost at the points where it is lost. The heat is directed particularly at outer wall areas which, with windows and doors, are responsible for most heat loss. In fact, outside walls in the typical one-story house account for 30 per cent of heat loss, doors for 16.4 per cent and windows for 32.6 per cent making a total of 79 per cent at these three points.

The National Warm Air Heating and Air Conditioning Association has prepared a series of definitions and



Cross section details of construction units for properly installed perimeter duct

# typical boiler connections ....

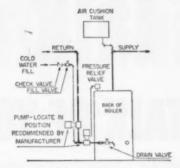
HOT WATER RELIEF VALVE

ATER

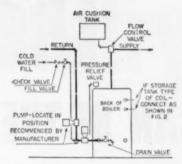
GATE VALVE

DRAIN VALVE

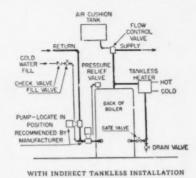
HOT WATER STORAGE TANK



WITHOUT DOMESTIC HOT WATER SUPPLY



WITH SUBMERGED HEATER INSTALLATION



WITH INDIRECT HEATER AND STORAGE TANK INSTALLATION

MEL VE

CHECK VALVE

PINP-LOCATE

RY

MANUFACTURER

In all cases, supply should be connected to front tapping in top of boiler.

descriptions of various types of perimeter warm air heating. These include:

GATE VALVE

*Crawl Space Duct System.* With a home built over a crawl space, the system is suspended from floor joists. Branches from furnace plenum or extended plenum end in registers placed below windows and along outside walls.

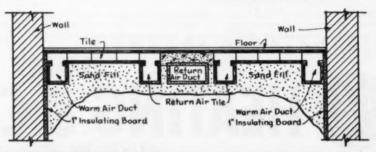
Loop System. For homes built on concrete slab set directly on the ground, warm air ducts embedded in the slab follow the outer wall of the building in a continuous loop supplied by feeders from the furnace plenum chamber. Registers are below windows. Floor surfaces radiate some heat also. *Crawl Space Plenum System.* The entire crawl space is used as a warm air supply plenum. Stub ducts from furnace plenum chamber direct air currents to window registers.

Institute of Boiler and Radiator Manufacturers

Radial System. Houses with either crawl space or slab construction can use this system, which has individual ducts from furnace chamber reaching each window or wall register.

Lateral System. This layout places the furnace at one end of the building, in the center, with an extended main channel or duct running the length of the building down the middle. Every few feet, tile ducts branch off at right angles to both sides and conduct air to wall registers running the length of the building.

(Continued on page 286)



SECTION DRAWING showing detail of floor construction and tile duct system. Although this floor is designed for tile, there are other common materials that may be used

# The Talk of the can be the talk of your town!



**HERE IT IS**—the new, all-new, *really small* G-E Year-Round Air Conditioner—exactly as seen by the thousands of enthusiastic home builders who thronged the G-E exhibit at the 1953 NAHB Show in Chicago. Builder after builder told G-E representatives it's just what the industry ordered! Heating and Cooling from a single, small packaged unit they can locate anywhere.



AMERICAN BUILDER



G. E.'s new Year-Round Air Conditioner uses as little as 8.2 sq. ft. of floor space—with over 190 model choices—for every size home and every climate!

### THE AIR CONDITIONER BUILDERS ASKED FOR!

Hottest news at the 1953 Builders' Show-the new, all-new G-E Year-Round Air Conditioners are big, exciting news wherever new homes are being built. That's because this sparkling new unit was built to satisfy builders – and their customers! Builders have a wonderful new way to speed home sales, plus a unit with G-E dependability that cuts costs and saves space. Homeseekers get the perfect answer to their long-expressed desire for automatic summer cooling and winter heating in the *entire* home.

**SMALLER THAN YOU'D BELIEVE POSSIBLE!** No. 1 hit with builders is G-E's compactness. You save valuable dollars in floor space! Most popular size takes only 8.2 sq. ft. of floor space; all sizes, even the largest, are only 55" high and 30" deep. You get full capacity cooling and heating from a unit you can tuck away anywhere—closet, utility room, crawl space, garage, or basement. You'll save on installation and handling too! Units are light, can be carried through an ordinary door.

FOR ANY SIZE HOME—ANY CLIMATE! G. E.'s line features complete flexibility! There's a unit to fit your home as designed! No need to design homes around the unit. Over 190 models to choose from ...choice of fuel—oil or gas...choice of power supply. Works well with conventional ducts, or get extra benefits with G-E's unique Air-Wall System. G-E engineering provides just what you need!



SEND FOR THE FACTS TODAY G-E Air-Wall System gives extra benefits! Perfect for both heating and cooling! Many construction savings possible with this pre-engineered, space-saving, small-duct system. Same registers deliver both cooling and heating, eliminating highwall outlets. Air is spread upward-never blasted straight out. Blends beautifully with any setting, allows full freedom of furniture and drapery arrangement. No carpetcutting required.

......

FOLKS ENJOY LIVING WITH A G-EI It's handsome, with an attractive two-tone finish that enhances the beauty of any decor. It's whisper-quiet-for the whole cooling system is hermetically sealed in steel and spring-mounted internally to eliminate vibration. It's fully automatic. At the flick of a finger, you get cool, dehumidified air through the entire home in summer. In winter, wonderful, economical warmth! You're assured of dependability with G. E. Every cooling mechanism is factorysealed and backed by G. E.'s generous 5-year Protection Plan!

**G.E. HELPS YOU MERCHANDISE YOUR HOMES!** G.E. is interested not only in selling air conditioning, but in helping you sell your homes! We're ready to cooperate with you in local advertising, publicity, and model home promotion with the most complete line of home-selling aids in the business!

**G. I. OFFERS A COMPLETE LINE** of furnaces and boilers for oil and gas, warm air, hot water, steam or vapor—all designed to give economical comfort all backed by G. E.'s reputation for dependability.

Heating and cooling from single, small, factory-packaged unit1 All models only 55" high, 30" deep. Width varies from 39" to 74" depending on capacity. Over 190 combinations to choose from. Cooling from 2 to 5 tons. Gas heating from 48,000 to 168,000 BTUH output. (Types of gas: natural. (Types of gas: natural.) (Ty



# GENERAL 🍪 ELECTRIC

	General Electric Company, Air Conditioning Division, Sec. AB-18, Bloomfield, New Jersey
P	lease send me free booklets on Year-Round Air Conditioning 🔲
P	Tease have my G-E dealer tell me the complete G-E story
N	IAME
	YPE OF BUSINESS
A	DORESS
¢	COUNTY STATE

\*Reg. Trademark of General Electric Co.

..........



Venko permits you to feature greater comfort and lower operating cost. At the same time, it eliminates hours of costly labor by coming completely equipped for speedy installation with burner, circulator and controls in place ready to operate. Further, Venko's crate, designed to fit through a 30-inch door, enables one man to handle the entire unit. Don't by-pass profit. Check and see how Venko can enlarge your sales picture.

NATIONALLY ADVERTISED

Built to fit the modern home

WATERFILM BOILERS, INC. division of L. O. KOVEN & BRO., INC. 154 Ogden Ave., Jersey City 7, N. J. Plants: Jersey City, N. J. + Dover, N. J.





for every purpose — in any size and price range

### wall switch controlled low cost model AUTOMATIC SIDEWALL

Now available at the same price as pull chain models! Weatherproof outside hood protects against ice, snow, wind and rain—encloses scientifically counter-balanced, exclusive "Flutter-Free" shutter that automatically opens and closes when fan starts and stops. Wall Switch centrelised—single or three speed (extra). Unscrewing of center grill knob removes grill for easy cleaning. Motor and blade completely removable by merely loosening two wing ruts. In 8-inch and 10-inch models for walls 4's" to 28' thick. Sparkling white or chrome finish. Full 5 year guarantee. WF8C, WF10 and WF10C...priced as low as \$27.55





### FOR CEILING OR SIDEWALL

### Only 3½' deep over-all Blower-type blade

 Blower-type blade
 Most attractive, powerful, versatile kitchen fan available. New blower-type pressure blade maintains high air exhaust volume in long ducts. Mounts in ceiling or sidewall. Grill ermoves by merely unscrewing center grill knob. Outside frame will never warp or rust. Model CF8C especially recommended where low cost is a deciding factor. In White Enamel or Chrome finish. Available with 3-Speed Control switch (extra). Full 5 year guarantes. CF8C, CF100 and CF100KC... priced as low as \$27.95 complete with Wall Cap.

### ECONOMICAL PULL CHAIN MODELS

Where wall switch is not desired, this powerful, economical pull chain model is highly efficient. Eliminates wall switch installation cost. Outer frame will never rust or warp fan housing. Grill easily removed by merely unscrewing center knob. Motor mounted on one bracket —motor and blade completely removable by lossening just two wing nuts. Available in 8° and 10° models, white enamel or chome finish for walls 515° to 16° thick. Full 5 year guarantee. KF8N and KF10N ... priced as low as \$27.55

Listed in Sweet's Catalog or ask your Wholesaler.

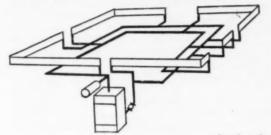
Complete catalog available by writing to

BERNS MFG. CORP. 3050 N. ROCKWELL ST., CHICAGO 18, ILL.



AMERICAN BUILDER

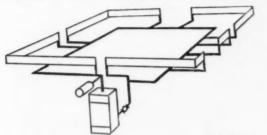
## baseboard heating systems



<sup>(</sup>Burnham Corp.)

Two-pipe forced circulation hot water system

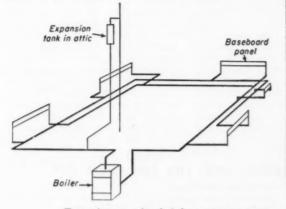
Two pipe, forced circulation hot water systems of baseboard heating require separate supply and return mains. Each baseboard panel circuit is more or less the same length. Temperature and friction losses are roughly equal. Careful layout can hold the additional piping required by these systems to a minimum.



(Burnham Corp.)

One-pipe forced circulation hot water system

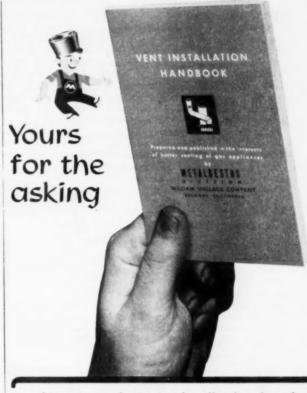
One pipe, single circuit, forced circulation hot water systems are ideal for small homes with low heat loss rate. One pipe, double circuit, forced circulation systems are usually required for larger dwellings. The separate circuits are supplied by a trunk which runs from the boiler to the supply main and has Btu carrying capacity equal to the combined circuits.



Two-pipe gravity-fed hot water system

Two pipe, gravity fed, hot water systems require larger piping than forced circulation systems and operate at lower temperatures. These systems are normally vented to the atmosphere, and steam or vapor will form when the water reaches boiling point. As a result, there may be excessive water loss if the system is operated at above 200° F.

APRIL 1953



... this new, authoritative handbook — based on the latest research in gas appliance venting

When you install gas burning appliances, you'll want this

useful handbook containing complete, up-to-date information on gas venting practices plus many helpful installation tips. The findings presented are based on extensive engineering research recently completed by the Metalbestos Division, William Wallace Company, with the assistance of Stanford Research Institute.

Here are some of the subjects' covered:

- Fundamental Rules of Venting
  Determining Correct Vent
- Sizes and Capacities
- Choosing the Location of Vertical Vents
- Rules for Venting Various Types of Appliances
  - Vent Installation Tips

Amply illustrated throughout — and indexed for convenient reference — this handy pocket-size booklet will be an invaluable aid to anyone who specifies, sells, installs or services gas burning installations.

### Send for your free copy today! No obligation.

	METALBE	STOS DIVISION	DEPT. J Please send me with-		
1	out cost,	copies of V	ENT INSTALLA	TION HAND	BOOK.
1	NAME		TI	TLE	
Ì	COMPANY				
	ADDRESS				
-	CITY		ZONE	STATE	
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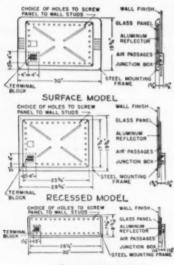
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### (Continued from page 281)

#### Glass Wall Panels

One of the newer developments in radiant heating has been the use of glass wall panels. The units consist of rectangular glass panels 1/4 inches thick with an aluminum grid fused to the back of the glass. The glass is almost impossible to break. An aluminum reflector is placed between the glass panel and the back of the mounting frame. Electricity passing through the grid raises the temperature of grid and glass panel to as high as 340 degrees F. Temperature differentials cause air to circulate through vents at the top and bottom of the panel, thus heating by a combination of convection and radiation. Thermostats provide automatic operation.

Tests indicate that such units, properly installed, will operate efficiently, and can be used economically where the kilowatt rate is two cents or less. In houses heated by other means, individual panels can be useful for spot-heating of bathrooms and similar locations. They are also useful in continential installations.



BASEBOARD MODEL

ABOVE THREE TYPES of electrical radiant glass panels with details of construction and insulation

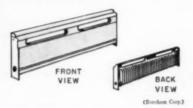
### **Baseboard Heating**

Baseboard heating, which furnishes heat both by radiation and convection, can be installed as a complete system or as an adjunct to other heating devices. A high percentage of heat from baseboard panels is distributed by radiation, which reduces rising warm air currents and the wallstreaking common with ordinary radiators.

Baseboard panels can be used effectively with one-pipe hot water systems, two-pipe forced hot water,



Above: Type "R" cast iron baseboard panel. Below: Type "RC" cast iron baseboard panel with fins at back to increase beat transmission



two-pipe gravity hot water, and twopipe steam systems. They cannot be used with one-pipe steam systems because of venting and condensation problems.

Baseboard panels come in three basic types, each of which requires that substantial wall areas be well insulated wherever the panels are placed. Convector types consist of finned tubing or pipe within a baseboard style metal shell. These may either be single or double core and the shell may have dampers built into it at grill or openings. Type R panels are cast iron, water backed, without fins, Type RC is cast iron but has fins attached to the back and slots at the top to aid in convection.

Some of the advantages of baseboard heating include fuel economy, lower temperature differentials, cleanliness, fitting into decorative schemes easily, added floor space, lower maintenance costs, fittings and piping easily accessible, and satisfactory comfort.

### Air Conditioning

Air conditioning is the control of temperature and humidity; it also includes the control of air motion and distribution, and cleans the air. The simpler type of air conditioning for homes involves the use of attic fans of various types, including home cooling fans with plenum chamber (suction box), which cool the house in summer by providing proper ventilation. Ceiling ventilators are also in this class.

Winter air conditioners are furnaces which send forced air, heated, humidified and filtered clean to each room.

Year-round air conditioners for homes are units which provide: (1) summer cooling, (2) dehumidifica tion for summer temperatures; (3) winter heating; (4) humidification for winter temperatures; (5) air cleaning—a filtering out of dust, pollen, soot, and lint the year 'round; and (6) air circulation with ventilation—a draft-free flow of clean air, providing uniform temperatures.

Self-contained air conditioners are package units which give summer cooling, dehumidification, filtering (also air circulation and ventilation when installed with an outside connection). They are designed for individual rooms and can be used with duct work or installed directly in the space to be served. Self-contained units are also available which give year-round air conditioning for individual room areas, heating as well as cooling.

Several manufacturers now have available small capacity air conditioning units adaptable for installation in small, low-priced houses.

### CLEARANCE IN INCHES REQUIRED FOR SAFETY. VENT PIPE AND SMOKE PIPE.

(From National Fire Protection Association and Underwriters.)

TYPE OF ADJACENT MATERIAL		GAS	COAL OR OIL			
	Furnace or Boiler		Water Heater-Space Heater Floor Furnace		Metal Shield 1" from ceiling	Without metal shield
	Metal vent	Type B vent	Metal vent	Type 8 vent		
Exposed Woodwork Wood Lath and Plaster Incombustible Lath and Plaster	6 6 1	1	9 9 1	3 3 1	12 9 6	24 18 9
Masonry or Concreto	1	1	1	1	1	1

Courtesy Surface Combustion Corp.

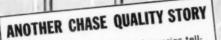
Opril Showers every day in the year!

For a refreshing shower with crystal-clear water and full-pressure...your home should have hot and cold water lines of Chase Copper Water Tube and Fittings.

Chase Copper Water Tube delivers a full flow of water. It can't clog with rust...it resists corrosion. Whether you're building a new home or replacing old pipe, use durable copper. For long life, at low cost, it's a far better buy than rustable pipe.

Ask your architect, builder or plumbing contractor about Chase Copper Water Tube. It's available through Chase plumbing and heating wholesalers served by 23 Chase warehouses across the nation. Chase Brass & Copper Co., Incorporated, Waterbury 20, Conn.

Chase The Nation & Headquarters for BRASS & COPPER subaidiary of KENNECOTT COPPER COMPORATION



This compelling ad is one of a series telling the Chase quality story to 15,872,000 readers of the Saturday Evening Post and other national magazines. It sells your clients on the quality of your services when you recommend Chase Copper Water Tube and Fittings.

CHARS BRASS & COPPER CO., WATERDORY 20, COMM., Warehousen and Sales Offices at: — Albemy? Ationis Bathen Dates Chicage Cincinneti Covoland Dalhas Devver? Detroit Housten Indiampoli Kanasa City, Me. Les Angeles Milounkas Minanapolis Hower How Exteans How York Philadelphia Pitteburgh Providence Bechester? St. Lonis San Francisco Seutha Webriery (?sales office only

1100

BURNHAM

# A BOILER CAN SELL OR UNSELL A WELL DESIGNED HOME

Check the advantages of these two Burnham leaders. You can specify either with complete assurance. Both are the product of 80 years of experience in making fine boilers.

**PACEMAKER\*** – Here's the oil-fired boiler that hit the jackpot of popularity because its high quality and fine performance belie its low competitive price. Its double combustion chamber and vertical flue travel over hundreds of heat grabbing fins, its large direct heating surface make it a highly efficient heating plant. It's made of cast iron for long, trouble-free service.

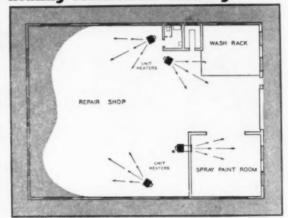
YELLO JACKET – The quality and performance of this all-fuel boiler are unbeatable. Its low fuel consumption is a direct result of its exclusive Burnham double combustion chamber design. That means long vertical, lateral and horizontal fire travel over hundreds of heat-hungry fins. Dependability, long life and safety are other factors that make this very popular boiler a heating plant you can be proud to sponsor. \* Reg. U.S. Pat. Off.

Both boilers available with attractive two-tone flush or extended jackets. Both can be equipped with all copper coils for year 'round domestic hot water supply, either tankless or storage type. Mail the coupon for full details. Rated in accordance with IoR rating and testing code.

BURNHAM BOILERS WEAR LIKE IRON, BECAUSE THEY ARE MADE OF IRON



Irvington, New York FIRST IN THE MANUFACTURE OF BASEBOARD HEATING heating commercial buildings

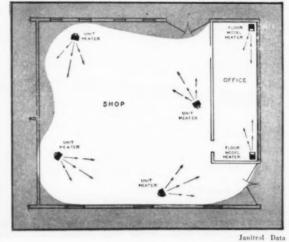


Heating commercial buildings requires consideration of the size and type of building, its functions, space requirements and limitations, installation costs and maintenance costs, as well as operating problems. For any small commercial structure, the heating plant should be calculated to cost roughly 10 per cent of the total cost of the building; otherwise, heating may prove inadequate.

The simplest structure to be heated is the small monitor building occupied by a neighborhood service business. Floor space is usually at a premium, and heating must be economical and not take up space. For this purpose, floor furnaces, unit heaters, or radiant panel constructions have proved desirable.

Another type of one-story commercial building has its space divided typically into showrooms, offices, and workshops—for example, commercial garages. Directfired unit heaters, or combinations of unit heaters with self-fired radiators can be used. Forced air heating will give satisfactory results, as will central steam and hot water systems with radiators or convectors. Radiant panels installed in the floors will also give good service.

The third main type of small commercial building is the multi-story multiple purpose building with first floor used for offices or warehouse space, with offices or living quarters above. This type often encounters the problem of different tenants trying to regulate heat in their own quarters by turning off radiators, partially closing them, opening windows and wasting heat. Two-pipe steam and both one and two-pipe hot water systems usually prove most effective.



AMERICAN BUILDER

BURNHAM YELLO-JACKET

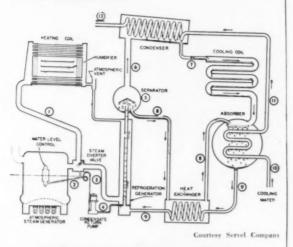
#### "ALL-YEAR" AIR CONDITIONER

Heat is provided for the absorption refrigeration unit in the form of steam at atmospheric pressure, produced by the compact steam generator. Refrigeration is produced by the "absorption" principle utilizing heat as the motivating force.

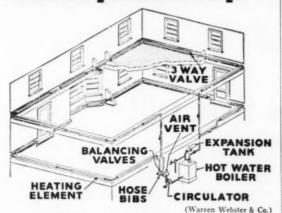
Dehumidification is accomplished by passing the air stream over the refrigerated coil surface which is sufficiently cold to extract moisture simultaneously with dry bulb reduction. Surface dehumidification offers positive moisture extraction in balanced relationship with cooling capacity.

The entire refrigeration unit operates under a vacuum at all times. The absolute pressure within the generator and condenser is somewhat higher than in the evaporator and absorber.

Simplicity of operation and control are the fundamental features which this type of system embodies. There are no moving parts within the refrigeration unit.



# mainless perimeter loop ....



#### Mainless perimeter heating (series loop) system in conventional two-story house-piping is held to a minimum

Mainless perimeter heating with series loop system climinates the basement main and is particularly suitable for concrete slab construction of basementless homes, but is equally useful in conventional small structures. Basement main is eliminated by connecting baseboard panels in series so that there is no need for piping imbedded in the concrete slab. When additional radiators or convectors are used in conjunction with this system, they are either connected in series with the baseboard panels or are connected to the "main" by two run outs. Manufacturer's instructions for this arrangement should be followed carefully.



### THE WINNER SETS THE PACE

A step ahead of the entire fan field in anticipating the demand of the booming fan market, Murray announces the addition of its new and exclusive DeLUXE models to the line of attic and industrial fans.

- Only Murray's DeLUXE line offers installem-and-forget-em advantage—sealed, lifetime-lubricated ball bearings in both fan and motor.
- Only Murray's DeLUXE line offers a full

10-year guarantee.

WRITE FOR NEW CATALOGUE New catalogue on complete line of DELUXE and Standard industrial and attic fans and window fan line



ATLANTA, GA.

# **BullDog** *Pushmatic*. Electri-Centers

# SYMBOL OF THE MODERN





# Give your homes more <u>sell</u>!

Builders tell us that prospects frequently judge a house by a single modern, efficient feature. A BullDog Pushmatic Electri-Center—in which automatic pushbuttons replace old-fashioned fuses—is an important feature that will help swing many a sale for you.

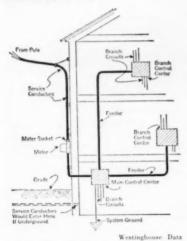
Your customers are quick to appreciate the safe, simple-to-operate electrical protection of BullDog Electri-Centers. They're impressed when you say, "No more fiddling with fuses!" A simple push of a button restores service after a short or overload. BullDog Electri-Centers can be installed anywhere; can be painted to match any color scheme.

You'll find that BullDog Electri-Centers will help sell your homes, too. Write today for free Bulletin PM-360. BullDog Electric Products Company, Dept. AB-43, Detroit 32, Michigan.

C BEPCO



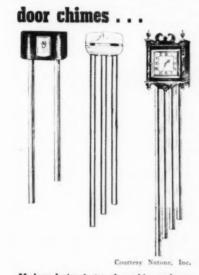
### service . . .



....

SCHEMATIC ELECTRICAL DISTRIBUTION system showing typical location of control centers near centers of load or power use. Such arrangement makes branch circuits shorter, gives reduced voltage drop, and more efficient operation of electrical equipment at lower expense. Easier installation makes lower initial cost possible





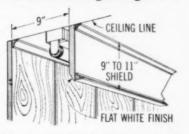
Modern design in two-door chimes shows a few of many possibilities in selection of chimes to fit home decoration theme. Brass finish tubes provide different tone combinations. 4-tube model at right serves three doors, has volume control and electric clock

Flaar Area Square Fact		Size of	Capacity of Con-	Rating of Service Equipment in Ampores			
		Area	Service	ductor	Circuit	Fused Switch	
			ductor	Amperes	Breaker	Switch	h Fust
Ū.	-	1000	6	55	50	60	50
00	40	1500	4	70	70	100	70
88	44	3000	2	95	90	100	90
	24	4000	1	110	100	100	100

Above recommendations are based on three-wire service valtage with between 110/220 and 120/240 valts.

	Size	ity of uctor peres	Rating of Protective Device			
Circuit Purpose	of Con- ductor	Coper Cond	Fuse	Cir- cuit Brbr.	REMARKS	
Lighting Outlets	#14 Min.	15 Min.	15	12	I circuit for on. 500 m, ft. of floor area	
Convenience Outlets	#14 Min.	15 Min.	15	15	1 circuit for ea. 500 sq. It. of floor area	
Kitchen & Dining Room Gutlets	<i>8</i> 12	20	20	20	SO per cent of kitch- en and dining room outlets to be con- nected to some cir- cuit	
Loundry	#12	20	20	20		
Range	#8 Min.	35	35 Min.	35 Min.	115/230 v. circuit	
Water	\$12	20	20	20	230 v. circuit	
Heater	Min.	Min.	Min.	Min.	230 V. CIPCUIT	
Ciethes Dryer	#10 Min.	25 Min.	25 Min.	25 Min.	115/230 v. circui	
Heating Unit	#14 Min.	15 Min.	15 Min.	-15 Min.		
Dishwasher & Waste Disposal	<i>f</i> 14	15	15	15		
Home Freezer	#12	20	20	20	115 v. or 230 v.	
Work Shop	#12	20	20	20		

### concealed lighting . . .



Cornice shield shown above may be of various materials, in design in keeping with the architecture and decorative theme of the room. It should be from 6" to 10" deep, run the length of window or wall, with returns at least 6" in length from wall to inner surface of shield



40-watt fluorescent lamp
 fluted, frosted glass
 cavity painted white

4. metal channel strip for wiring, ballasts, and radio interference filter

General Electric Co. Data

Valance lighting fixture for fireplace mantel provides friendly glow of light below mantel and diffused lighting through frosted glass shelf for pictures or other decorations on wall above mantel

## SALES SPARKER IDEAS with "PLUG-IN" STRIP



LIVING ROOM—Type CF-3 (switch controlled) "Plug-In" Strip provides a complete baseboard of outlets spaced 18" apart. Every outlet provides dual service—switch controlled at doorways or constant service. Allows absolute freedom for furniture rearrangements.

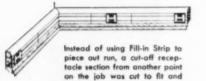


**BED ROOM**—An important room for electrical living. "Plug-In" Strip behind the bed provides plenty of outlets for lamps, radios clocks and heating pads.

KITCHEN—Type CF 2 (constant service) "Plug-In" Strip provides a spread of outlets every 6" along the kitchen work centers. Every appliance has its very own plug-in!



### TIME-SAVER TIPS ON "PLUG-IN" STRIP INSTALLATION



jumpered in.



Improvised outlet "masker" keeps paint from plugs. (Made on the job by soldering copper rod handle on to a cut out piece of scrap tin.).

To meet this acute angle situation the base was cut back as shown and the extra capping bent squarely over for an end closure. Conductors were cut back and wire nuts applied.

40° Anale

Cut



- Side of Fireplace

Duct Center Feed

Strip actually laid in position and pencil marked for a cut to fit situation. This eliminates possibility of measuring error.



Tell your electrical contractor you want "Plug-In" Strip. It costs no more than ordinary wiring, but pays off in more sales.



Wood footer is not nailed into position until center feed base is secured and "Plug-In" Strip with clips is slid into position. This eliminates difficult driving of clips into a tightly secured footer. Finally, footer is toe nailed, drawing the whole assembly into a tight and perfectly aligned trim.

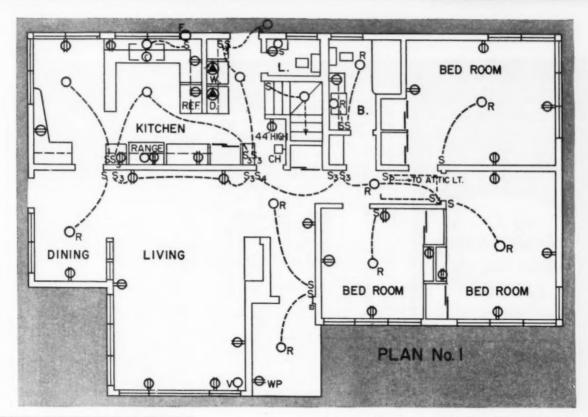


Connect circuit feed, with suitable connector, to base of Center Feed Junction Box and secure base in position. Install Elbow Bases and any necessary bridging End Junction Boxes.



3 Plants • 7 Warehouses • 34 Sales Offices

AMERICAN BUILDER



Recommended wiring and diagram by National Adequate Wiring Bureau

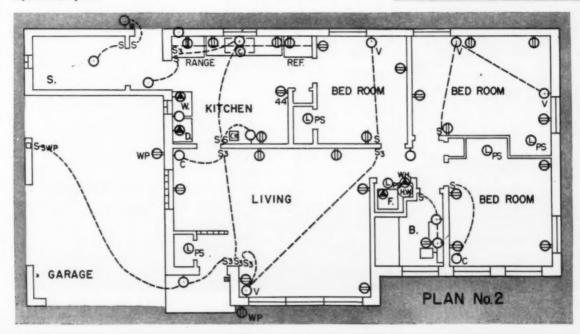
Recommended Service: 3—#2 wires with 100 amp. entrance equipment. Basement wiring includes 5 lighting outlets. 1 convenience outlet near furnace, and 1 furnace outlet on separate circuit. Branch circuits include: 3 general purpose #12 2-wire circuits for lights and conv. outlets in living rooms, bedrooms, etc.; 2 appl;nnce lines for conv. outlets only in kitchen, dining room, #12 2-wire; 4 individual circuits #6 3-wire for range, #10 2-wire to dryer, #12 2-wire to washer and furnace; 3 spare terminations for expansion later.

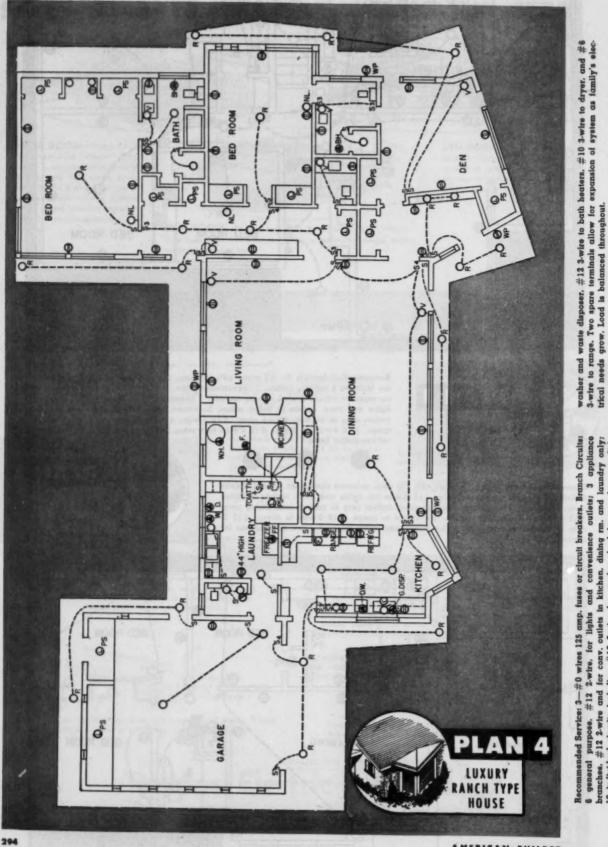
RANCH TYPE HOUSE Recommended Service: 3-#2 wires with 100 amp. en

AN

Recommended Service: 3-#2 wires with 100 amp. entrance equipment. Branch circuits include: 3 general purpose circuits #12 2-wire for lights and conv. outlets in living room, bedrooms: 2 appliance lines for conv. outlets only in kitchen and dining area. #12 2-wire; 5 individual circuits. #6 3-wire to range, #10 3-wire to dryer. #12 2-wire to washer and furnace, water heater per utility rules; 3 spare terminations for expansion of system.







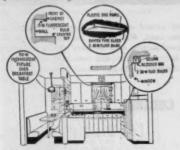
mended wiring and diagram by National Adequate Wiring Burgan Recor

6 general purpose. #12 2.wire, for lights and convenience outlets; 3 appliance branches. #12 2 wire and for conv. outlets in kitchen. dining rm. and laundry only: 10 individual circuits including #12 2 wire for washer, food freeser, furnace, dish-. .

.

AMERICAN BUILDER

THE KITCHEN is one of the most important work areas to be lighted in a house. All work surfaces should have a shadowfree high value of illumination. The use of tubes in coves, troughs or behind conceciled strips injects a newness in workshops of the home that even a coat of paint could not have attained. The central lighting fixture will give general illumingtion, but additional light is necessary over sink, stove, or work surfaces. In the modern kitchen, as in no other part of the home, is found a variety of electrical appliances, wiring devices and electrical



outlets. Consequently, more fluorescent lighting has been used in klichens than in any other room. Good utilization of the long, slender characteristics of fluorescent lighting is evident in this planned kitchen. According to recent surveys, better than seven per cent of the nation's kitchens are lighted today by fluorescent tubes. and over 65 per cent of the women questioned expressed a preference for this

type of lighting. Located over the sink is a recessed fluorescent reflector with glass cover and using two 30-watt fluorescent inhes

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



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



#### Medel 1.5M25, 1500 watts, 115 volt AC. Manual control. Weight 130 lbs. Also 115 volt DC weighing 101 lbs.



### Save time and cost

Move jobs faster with electricity wherever the work is done-save expense and bother of temporary power line hook-ups. Portable, lowcost model operates saws, drills, grinders, pipe threaders and cutters, other tools. Develops 1500 watts AC. Engineered throughout by Kohler. Rubber-tired two-wheel cart available. Other sizes 500 watts to 30 KW. Write for folder 14-K.

Kohler Co., Kohler, Wisconsin, Established 1873

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BING FIXTURES . HEATING EQUIPMENT . ELECT



Plenty of electrical out-lets is a feature that ranks right at the top of desirable points in any building — more electrical devices come into use every day and the need for outlets is greater!

EACTORIES

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PLUGMOLD 2000 pro-vides a *double* outlet every 30 inches, in a every so inches, in a continuous run — closer spacings are available wherever needed. Plug-mold is readily installed in any building — fac-tories, offices, stores, achools, hospitals, resi-dences — it is surface mounted, which means no tearing out of floors or walls in existing buildings. Plugmold 2000 is also available in 3-foot & 6-foot fac-tory-wired sections. nuous run-

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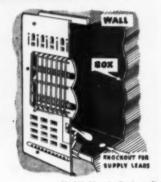


PANCAKE-overfloor raceways

THE WIREMOLD CO. Hartford 10, Connecticut

APRIL 1953

### wall heater . . .



Markel Electric Products Data

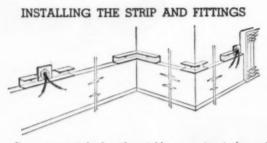
Auxiliary electric heater for wall installation produces both infra-red radiant heat and fan-forced hot air. Box is installed like any outlet box, with front edges flush with plaster. Box is mounted on cross pleces nailed to studs. No special framing is required. Locate 10 to 12 inches above the floor.



Valance lighting, Courtesy Moe Light, Inc.

Valance installations above windows should extend at least 4" beyond windows at each end, farther if heavy draperies are also used. Wall-to-wall use as shown is becoming increasingly popular, especially in combination with drapery effects. Standard decorative valance panels are available in both traditional and contemporary designs, with matching traverse and curtain rods. Installation is simple: mount on wall and plug into nearest electric outlet.

### distribution center . . .

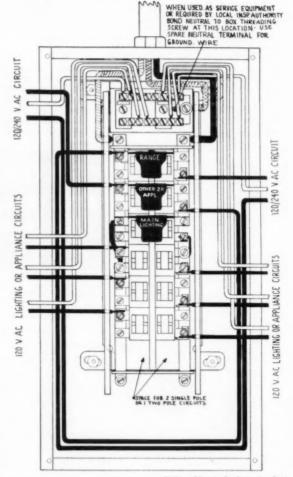


Connect circuit feed, with suitable connector, to base of Center Feed Junction Box and secure base in position. Install Elbow Bases and any necessary bridging End Junction Boxes.

wiring with plug-in strip N PLASTER N WOOD BASE

Place "Plug-in" Strip against the wall in proper position on the baseboard. A downward thrust on the Strip slides it firmly into place. The screw holes in each end of the base may also be used for mounting.

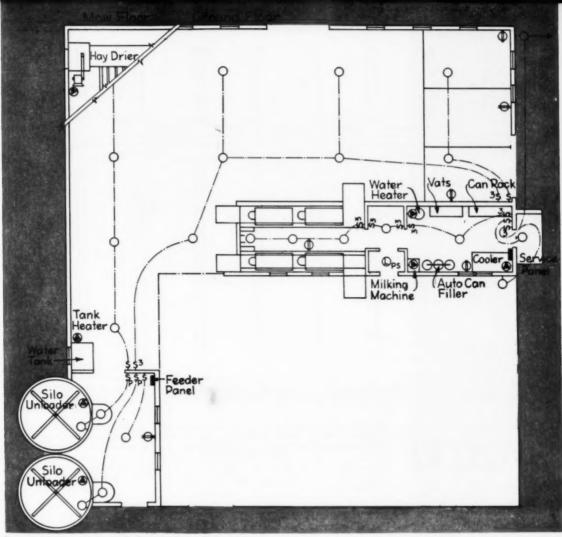
National Electric Products Corp. Data



Bulldog Electric Products Co. Data

Twelve-circuit distribution center shown above is recommended for use in larger homes. Panels are split bus type with a main to control the lighting circuits. Above the main, 120/240 V. AC units are generally used for range, dryer, and similar heavy appliance applications. Panel has space for additional circuits as electric needs grow. Unused circuits may be covered with filler plates until required.

### AMERICAN BUILDER



#### Recommended wiring and diagram by National Adequate Wiring Bureau

Recommended: Service, 3—#0 wires—1—100 amp. & 1—60 amp. switches; or, 1—100 amp. & 1—40 amp. circuit breakers. Feeder, 3—#8 wires. Branch circuits from service panel are: 3 general purpose circuits to lights and convenience outlets. 115 volt, #12 wire; 3 individual circuits # 12 wire 230 volt to milking machine, water heater and can cooler: 1 individual circuit #8 wire 230 volt to hay dryer. Circuits from feeder panel include 1 general purpose to lights and convenience outlets; 3 individual circuits to stock tank heater and silo unloaders.



### **Planned Lighting**

Lighting is an important consideration while the design of the home is in the blueprint stage. The placement of lighting sources where particular functions are being performed may satisfy a lighting problem in quantity but not quality. Provisions should be made for flexible schemes to prevent excessive contrasts of brightness for good visibility and eye comfort. Architects and designers realize the value of lighting as a medium of design and are using it for decorative purposes as well as utility.

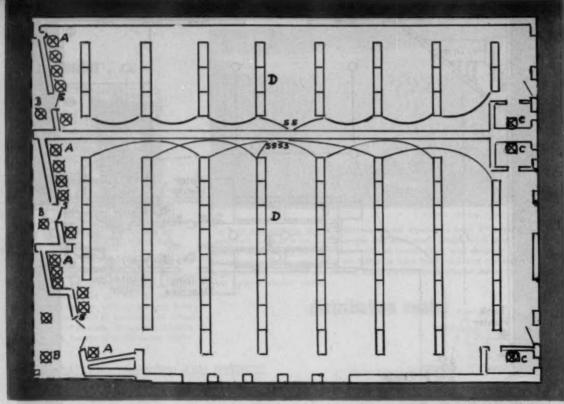
One of the strongest selling features of a new home is often its kitchen. Modern equipment and well-planned designs frequently influence the decisions of buyers who are looking for time and effort-saving advantages in their new homes.

Growing public interest in still another modern, energy-saving kitchen aid, planned lighting, when lighting equipment is chosen and installed according to new tested recipes, offers the builder new opportunities to increase saleability with a minimum of effort and expense.

Present widespread public interest in planned lighting has aroused many builders to include these advantages of modern lighting techniques in demonstration homes. In surveys based on visitors' preference, ballots solicited at builders' demonstration showings in both Dayton and Cleveland, Ohio. Kitchens with planned lighting were outranked only by ighted valances in living-dining room areas.

As one builder observed, once people have seen and experienced a kitchen with planned lighting, they realize that this is one of the advantages they can't afford to overlook in choosing a home.

To create a bright, efficient, streamlined well light-planned kitchen, lighting must be functionally arranged to assure desirable amounts of light for kitchen tasks.





LAUNDRIES can be light, pleasant work areas. Simple lighting units located over working areas for good visibility will appeal to most women. The lighting in this leandry will make tasks easier, increase efficiency and reduce nervous fatigue usually associated with washday. It will also bring out scorch marks so othen unseen until the article is used under day-

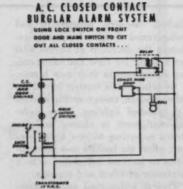


candles average intensity in sales area and 130 foot-candles in show windows. Marquee and windows are planned to have incandescent lighting, recessed flush, controlled by a time clock switch. Units for marquee and main store areas are of wide distribution type; show-window fixtures give concentrated distribution. All boxes installed prior to plastering or finishing wall surface. On plan: "A"—300W; "B"—300W; "C"—100W; "D"—2, 40W.

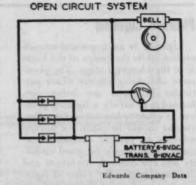
Fluorescent indirect lighting layout for modern store building provides for 40 foot-

light. Ironing scorches, burns and spots are readily detected under light from the daylight flucrescent lamp. Good lighting, therefore, becomes a gain and an economy when used in laundries. Generous amounts of light are provided by using an industrial type two-lamp flucrescent reflector (two 40-watt daylight tubes) in the ceiling. Additional fluorescent tubes are located under the cabinets for illuminating the tub and washing machine area. Well-planned laundries, such as this one, are important features in the new houses at today.

### alarm system hook-ups . . .



Two burglar alarm wiring layouts suggested for use with tin foil ribbon for protection of windows and doors. Normally, the foil ribbon is placed around glass as

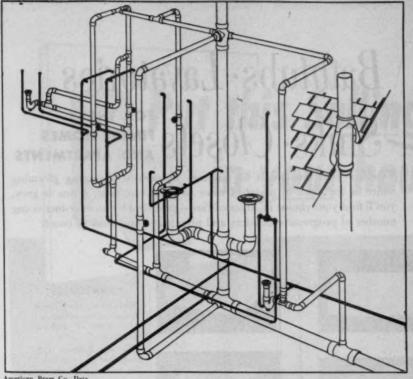


a border and soldered at each end to whree to form part of circuit. With closed circuit, breakage of glass breaks ribbon and opens circuit. Best secured with "liquid glass" and corted with shellar.

AMERICAN BUILDER



2



American Brass Co. Data

Three-inch copper tube with cast fittings will build into a 4" stud partition, eliminating need for normal 8" plumbing wall. Many plumbing codes permit 3" house sewer and 3" soil and vent stack, with stack increased to 4" before passing through root as shown in detail if danger of frost build-up is present

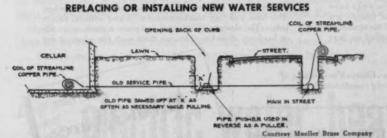
THE requirements for adequate plumbing in a house will vary. A two or three person family can get along very well with one bathroom. Larger families, or people who do much entertaining, will find that two baths, or a bath and powder room combination are not merely desirable but necessary.

Minimum needs require a bathroom with tub and shower facilities, a kitchen sink, laundry facilities, and at least one outside hose connection. Only in the lowest-cost homes should the kitchen sink and laundry facilities be combined, or should the tub and shower combination be replaced by a shower only.

CH TYPE

HOUSE

In one-bathroom houses, a good arrangement is to place the tub in one compartment and the toilet and lavatory in an adjoining one, thus permitting double use of the room. (Continued on page 302)



Method shown suggests excavation at the main with old service disconnected. Second excavation back of curb makes place for pipe jack to operate. New pipe service is attached to old line with adapter, and reverse action of jack pulls out old line and installs new in one operation. Old pipe is cut off in short lengths as it is drawn through

## PLUMBING, FIXTURES and ACCESSORIES

### Plumbing and the House

Adequate Plumbing Requirements Layout for Convenience Installation Economies Future Changes or Additions

### **Good Installation Practices**

Workmanship Plumbing Codes Testing Maintenance

### Water Supplies

Materials, Underground and Interior Arrangement for Economy and Performance

### Drainage

Materials, Cast Iron, Clay Tile, etc. Arrangement—Importance of Drainage

### **Bathroom Fixtures**

Tubs Lavatories Closets Showers Cabinets and Accessories Good Design

### Kitchen and Utility

**Room** Fixtures

Sinks Water Heaters Water Softeners

Laundry Trays

FOR MORE INFORMATION ON PRODUCTS ADVERTISED AND DESCRIBED IN THIS CHAPTER PLEASE USE ONE OF THE PREPARED INQUIRY POSTCARDS IN THIS ISSUE.

299



# Bathtubs · Lavatories FOR THE Sinks · Closets AND APARTMENTS

Whether your demand is for sanitary fixtures in glistening gleaming white or for units of matched color in pink, tan, blue, green or grey, you'll find your choice in AllianceWare — preferred by an ever-increasing number of progressive builders and plumbers from coast to coast.

### BATHTUBS

5-foot recess tubs of porcelain-on-steel each with an integral wall guard flange on three sides that prevents water leaks between the tub and the wall.

Also a 42" "Junior" recess tub that has great advantages as a shower receptor.

All AllianceWare bathtubs are available in white and five colors.











### LAVATORIES

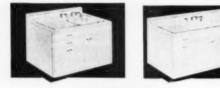
Wall-hung shelf back lavatory of porcelain-onsteel with or without overflow.

Flat rim lavatory with deep and generous bowl for tile or linoleum installations.

All AllianceWare lavatories are available in white and five colors.

### CLOSETS

Close-coupled combinations—one a reverse trap, the other a wash down the types most popular in today's construction. Each style assures positive, quick flushing. Available in white and five colors.



#### **DELUXE SINKS**

Porcelain-on-steel formed from 14 gauge. These sinks have double bowls or single bowls. Sliding drain boards are optional on some models. May be mounted on standard sink cabinets. Several models may be installed on legs without cabinet.

> Write for the complete AllianceWare catalog of detailed specifications and installation diagrams.





#### FLAT-RIM SINKS

Single bowl or double bowl, with and without faucet ledge. Also sink and tray combinations with and without faucet ledge. The design of these sinks permits a continuous tile or linoleum drainboard to run flush with the edges of the rims.

ALLIANCEWARE, INC. • Alliance, Ohio Bathtubs • Lavatories • Closets • Sinks





Builders are good businessmen. They are very sensitive to what the public wants. So when you find them including one particular type of equipment all over the country—in large homes and small—you can be pretty sure it's what people want. The builder of this house, for example—Mr. Al La Pierre of Seattle, Wash.—says: "Completeness is the key to a full life in Season-Master homes, and to make them complete I include *Electric* Water Heaters."

Here's why: Automatic hot water. Cleanness of operation. Economy of operation, due to short hot water lines and fully insulated tank. Easy installation, because there's no flue or vent . . . the modern water heater for the modern house—of course, it's *Electric*!

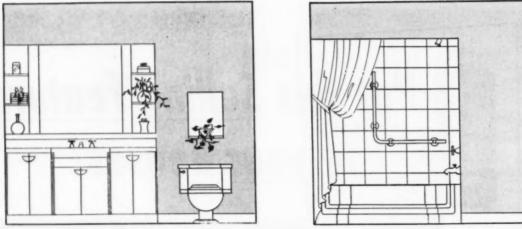
This attractive Season-Master model home (in the \$12,000 price class) is in Mountlake Terrace, Seattle, Washington. Its kitchen is designed for allelectric equipment. The builder, Mr. La Pierre, says, "Electric Water Heaters are an important feature of a wellplanned house."

. the modern water heater for the modern house-of course, it's Electric!

electric water heaters

THEY'RE WHAT PEOPLE WANT!

ELECTRIC WATER HEATER SECTION National Electrical Manufacturers Association 155 East 44th Street, New York 17, N. Y. ALLCRAFT • BAUER • CRANE-LINE SELECTRIC • CROSLEY • DEEPFREEZE • FAIRBANKS-MORSE FRIGIDAIRE • GENERAL ELECTRIC • HOTPOINT • HOTSTREAM • JOHN WOOD KELVINATOR • LAWSON • MERTLAND • MONARCH • NORGE • PEMCO • REX • RHEEM SEPCO • A. O. SMITH • THERMOGRAY • TOASTMASTER • WESIX • WESTINGHOUSE



Layout by American-Standard

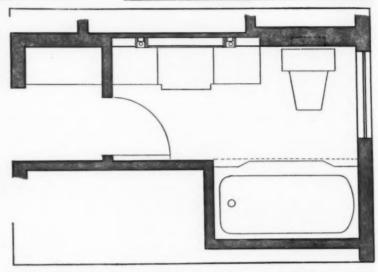
Bathroom layout suggests use of lavatory with dressing table cabinet, one-piece water closet of free-standing siphon vortex design, and cast iron bath tub with rim seat, low sides, and flat margin for bathing convenience. Note heavy-duty safety grab-rail built into wall around tub

(Continued from page 299)

### Installation Economies

For most economical installation, rooms having plumbing should be placed close together to avoid long runs of pipe. In a one-story house, the bathroom can be placed next to the kitchen or utility room. In a twostory house, the bath can be placed over the powder room, and the kitchen over the laundry and basement toilet.

The popular ranch-type of house commonly has the kitchen and utility room at one end or at the center of the house, and the bath at the other end. In such cases, kitchen and utility room should have a common wall, as

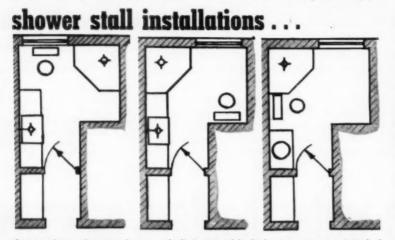


should the bath and powder room.

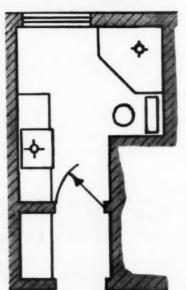
### Water Supplies

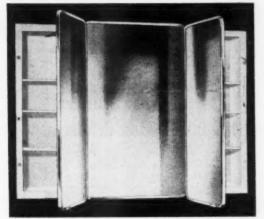
The water-supply system should deliver water to the fixtures at the rate it is needed. Water pressure, pipe size, the number of fixtures in use at any one time—all are factors in determining the water needed.

Water is brought into the house from the city main or well, in under-(Continued on page 307)



Suggested use of corner shower and elimination of bathtub gives more spacious feel to small bathroom. Such showers require no special framing in for support. Drain is connected to 2" pipe and P trap, and valves to hot and cold water lines. Galvanized bonderized steel walls may be finished in various colors. Receptor is semi-flat terrazzo with black and white marble chips and white cement. Mixing valves and glass shower doors may be added to increase convenience

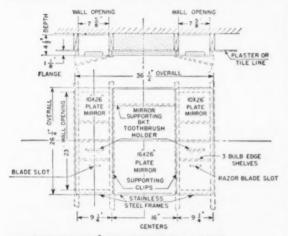




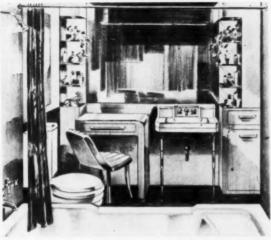
Courtesy Ideal Cabinet Corporation

### wall cabinet installation . . .

Side cabinets in this bathroom wall cabinet open to provide "vanity" mirror arrangement. Plate glass mirrors hang on full length hinges. Each side cabinet has three adjustable glass shelves. Cabinet is made to fit conventional studs 16" o.c.



a snace-saving arrangement . . .



Courtesy Eljer Company

Economical use of space is combined in this bathroom arrangement with full utilization of modern glass and ceramic materials

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DELCO C-12 WELLMASTER SHALLOW WELL PUMP

Fully assembled with automatic controls, ready to go. Self-contained; 225 ghp capacity-ideal for small farm, suburban home, cottage, summer camp, or use as booster for present system. 12-gallon galvanized tank, ¼ hp Delco Rigidframe Motor.





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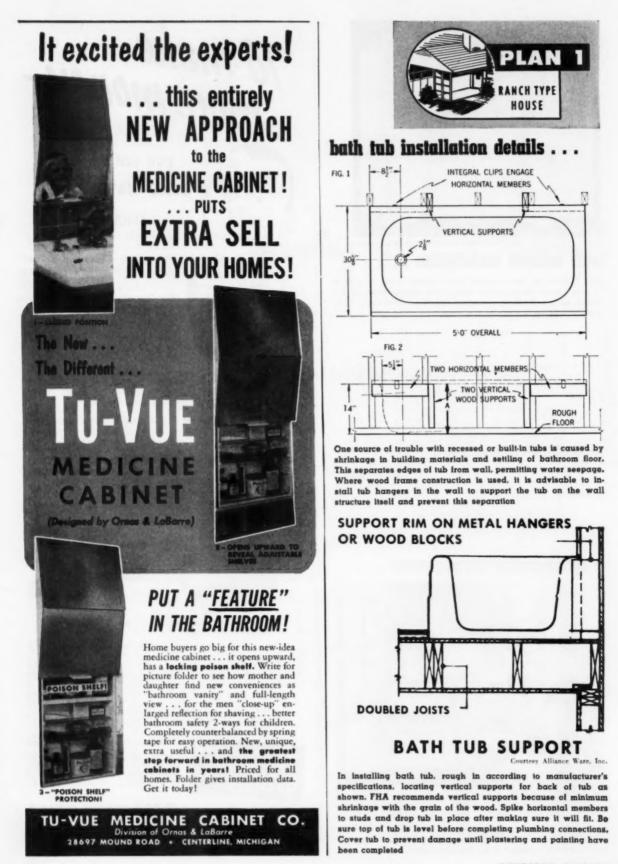
Choice New Franchises Available Now

For facts and information about complete Delco line, write or wire Dept. ABW, Delco Appliance Division of General Motors, Rochester 1, N.Y.

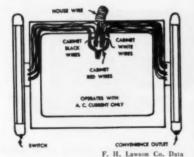


Conditionairs, boilers, and water healers

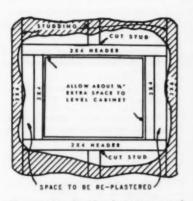
APRIL 1953



### how to install bathroom wall cabinets . . .



This recessed bathroom cabinet is made to fit standard 2"x4" studding, or deeper. Usual height of cabinet from floor is 63" from floor to center of mirror. Rough opening should be approximately %" larger in width and height to allow for adjustments. Outer flange will lap wall opening when installation is complete.



House wiring should end at top center of opening. Knockouts are provided in top of junction box to facilitate connecting to house wires. Color coding corresponds to normal house wiring codes and should be followed



Contrest Konter of Konter Enameled iron laundry tray has round corners to protect fabrics, swing-spout mixer faucet, provides attractive as well as efficient laundry facility. Designed for building into counters or cabinets, tray measures 24"x21" length and width, with 13" deep basin. Accessory metal frame makes counter installation easy

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ONLY BRIGGS BEAUTYWARE OFFERS ALL THE IMPORTANT FEATURES LISTED IN THE COLUMN AT RIGHT—AS WELL AS MANY OTHER POWERFUL SALES FEATURES!



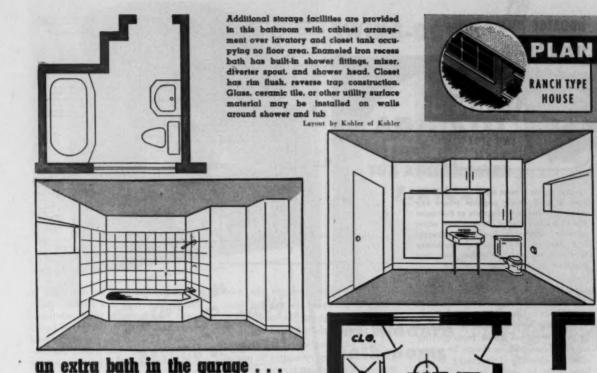
BRIGGS MANUFACTURING COMPANY 3001 Miller Ave., Detroit 11, Mich.

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Acid-resistant quality at no extra cost.
Patented Safety Bottom bathtub, reducing accident hazard.
Unnecessary dead weight elimi- nated from tub.
Tiling-in flange—leak-proof seal, tub to wall.
Under-tub framework—firmly posi- tions tub, independent of wall support.
Precision brass fittings engineered for minimum installation cost and long life.
Quick opening valves on lavatory fittings.
Lavatories with tarnish-proof chromium plated legs and towel bars.
Deeper lavatory bowls for greater water capacity.
Uniform tub dimensions, insuring exact fit.
Vertical front panel edges on tub, eliminating need for cutting and fitting wall tile.
Water closets with anti-syphon ball cock of proved quality.
Twin concealed front overflows and anti-splash rim on vitreous china lavatories.
Integral soap dish on lavatory.
Quiet-flush, positive action water closets.
Elongated syphon-jet closet bowl for greater hygiene.
Four non-fading pastel colors at prices only slightly higher than white.
Attractive contours, smart styling, functional design for durable service.
insist on all these— they mean highest quality!



### Suggested here is utilization of the far end of the garage for a second bath, providing a shower cabinet, toilet, lavatory, and small storage closet. This location makes for convenient clean

up of children as they come in from play, and of adults who come in from the garden or from other chores and need to clean up before tracking up the house. Shower walls are bonderised galvanised steel; receptor has slip preventing floor surface. It may be installed on special base frame to contain trap and waste pipe, or it may set flush with fluich floor

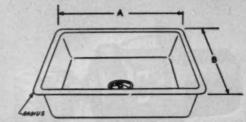
### (Continued from page 302)

ground pipes, to prevent freezing and to protect the pipes. A 1-inch galvanized or lead pipe, or 3/4-inch to 1-inch copper tubing will usually provide adequate water under normal city pressure of 30-50 lbs. In cities, a "roundway" will be provided at the property line, at which the water may be shut off by a key passing down through a metal or fibre tube extending up to ground level. A shut-off valve must also be provided inside the foundation wall or in the utility room. The meter, if used, is installed at this point.

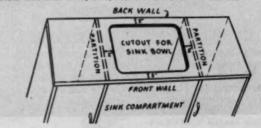
Access panels should be provided at the supply end of bathtubs, and other valves should be located in relatively accessible locations in case repairs are necessary. Air chambers should be provided for all fixtures to prevent "water hammer" when valves are suddenly closed. All piping should be at a slight pitch to permit draining down of the system to a low point if ever necessary.

### **Drainage** System

Water is forced through the supply pipes by pressure, but drainage of wastes is by gravity. Therefore, all Courtesy Henry Weis Manufacturing Company, Inc.



To determine the correct size frame for a sink bawl, three measurements are necessary. The length and width of the bowl, A and B in illustration above. These are OUTSIDE measurements; also, the OUTSIDE corner radius.



When locating cutout for the sink bowl, be very sure that the under-sink compartment is at least 2" wider and longer than the sink bowl to be used. This will allow the necessary 1" clearance on either side, front and back, for fastening the lugs. Use the vertical leg of the frame as a template for marking cut-out on cabinet top; place face up. This will give you proper cutout markings.

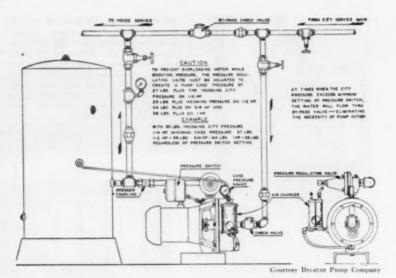
Courtesy Walter E. Selck & Co.

### booster pump installation . . .



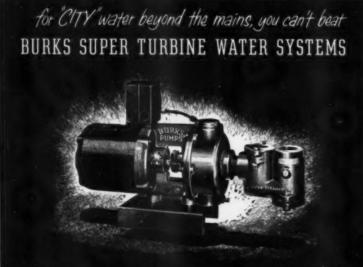
Booster water system such as that shown here is increasingly popular where city water pressure is inadequate or fluctuates during the day. Use of dishwashers, water softeners, automatic laundry equipment and other water consuming appliances may require pressure higher than that provided by city mains

drainage lines must have a pitch to insure proper flow so that wastes are carried out to the street or septic tank. Traps must be provided at all fixtures to prevent sewer gases from getting into the house. These should be accessible for cleaning if necessary. Waste lines must be vented to equalize air pressure throughout the system to avoid siphonage of traps. In climates subject to freezing, the vent stack or



stacks extending through the roof must be increased to prevent hoar frost from stopping the vent, which could permit siphonage of traps.

Some plumbing codes require that kitchen and laundry wastes be passed through a grease interceptor or catch basin to separate out grease and oil. If this is required, separate waste lines must be provided.



Finest engineered systems built! Same pumping unit for deep or shallow wells. Fully automatic self-priming only one moving part. A size for every need. And also ONLY BURKS HAS LIFE-LOK the famous feature that enables Burks pumps to provide greater capacity, better performance, and up to  $40^{\circ}_{\ell}$  longer life.



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78 ELK ST., DECATUR 70, ILL.

Downspouts may be connected to the city sewer, or to a separate storm sewer, which reduces the possibility of water backing up in periods of heavy rainfall. If a common sewer is used for wastes and rain water, the connection of the downspouts to the \* city sewer should be made beyond the catch basin, and beyond a back-water valve, if this is used to keep water out of the basement. In extreme cases, it may be necessary to install a sump and sump pump to handle the problem of water backing up to basements because the sewers are too high in the street, or because of insufficient capacity.

Materials for the drainage system are often specified by local plumbing codes. The commonly used materials for house sewers outside the house are clay tile, fibre or concrete pipe, and cast iron. Tile is cheapest and most easily installed, but may crack with settling of the ground, permitting roots to get in the pipe and obstruct



"High style" cabinet lavatory is built of laminated wood in natural wheat color, with one-piece laminated plastic top in colors to match bathroom decorating scheme



There's a reason why National Steel Cabinets are leaders. Architects and home builders know they are getting quality at a reasonable cost and each cabinet model has individual features that make it attractive for any home-whether it is the beautiful Ambassador Model 1000-or the Budgeteer Model 400.

### NATCCO gives you these features Exclusive seamless and one

for long life. All lighted models have an inside night light.

piece deep drawn bodies. All cabinets are completely rust-

Tooth brush recess.

Adjustable bulb edge shelves.

Many other features make the NATCCO Cabinets the leader.

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YEAR GUARANTEE! All mirrors are of "A" Quality Glass and are unconditionally guaranteed

against spoilage for five years.

Model 802

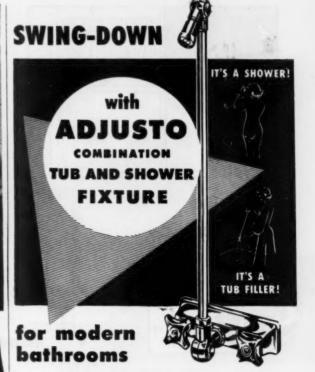
Model 1102

YOUR COPY 1. Ready! Your letterhead will bring you this new catalog on the complete line of NATCCO CABINETS.

Most models are IMMEDIATELY AVAILABLE in every major city

NATIONAL STEEL CABINET CO. 2415 NORTH CRAWFORD AVENUE CHICAGO 39. ILL.

APRIL 1953





ADJUSTO does the same thing for the modern bath that the swinging spout faucet does for the kitchen sink -one fixture mixes hot and cold water for full stream or fine spray. Saves time and money in installation! Adds finger-tip convenience!

ADJUSTO can be installed after tiling and decorating is completedeliminating danger of theft or damage.

Only one set of valves-no danger of back siphonage.

ADJUSTO gives a modern look to bathrooms-definitely helps sell houses.

SWING-DOWN FOR: **Standing Showers** Without Bathing Cap Sitting Showers Easy Shampooing ... and the children love it

See our Plumbing Contractor lumbers: See your Jobber or write

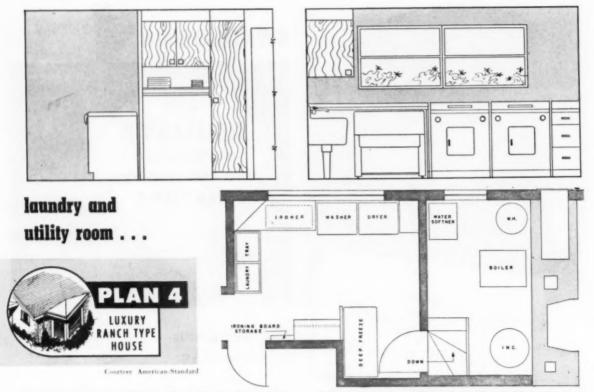
direct

323 E. Reservoir Avenue



309

Milwaukee 12, Wisconsin



Laundry and utility room layout above suggests the use of gasfired, fully automatic water heater, a storage type unit that is fast heating and well insulated. A draft hood prevents down

the flow. Cast iron is most expensive, but is permanent and trouble free.

Inside the house, piping for drainage may be of cast iron, clay tile, or fibre pipe for subfloor sewers, and of cast iron, galvanized steel or wrought iron, or copper, brass, or lead for above-ground piping. Cast iron is most commonly used for 3inch and 4-inch lines handling toilet wastes, while smaller sizes are galvanized pipe or cast iron.



Courtesy Crane Company

Bath and shower installation provides convenient grab rail for safety as well as ample storage space for towels and other bathroom linens and accessories. Large mirror area combines with natural wood paneling to enhance beauty of bathroom

drafts or excessive chimney draft. The double compartment enameled cast iron laundry tray provides a generous washing and rinsing area

### **Good Installation Practices**

The plumbing installation will customarily be made by the plumbing contractor, who will be a licensed master plumber. While it is his responsibility to see that the installation is properly made, in accord with local codes and requirements and in a workmanlike manner, the builder should also see that the specifications for plumbing meet these requirements and that the work is installed in line with the specifications. The cutting of corners, such as installing used pipe or fittings, using standard instead of extra heavy soil pipe, supplying valves or faucets of lower quality than specified, etc., should be guarded against. The best insurance for a good installation is the reputation of the plumber doing the work.

### Plumbing Codes

Because of the importance of good plumbing to good health, it is probable that no other phase of building construction is so rigidly controlled by code requirements. Variations, both minor and wide, will be found throughout the country, but the following provisions, in one form or another, may be considered typical of the requirements for good plumbing:

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GLAMOROUS! Bathroom Beauty that fits any recessed tub! PRE-PACKAGED! It's EASY to install in less than half an hour! INEXPENSIVE! Costs less than half usual custom enclosure price!

SHOWER MAID will make the bathroom in your speculative homes more glamorous . . . will make the homes more saleable. In SHOWER MAID for the first time the luxury of a tub enclosure is now available at a low price. Installation time is almost nil. SHOWER MAID fits any recessed tub that goes from wall to wall. Frame is mirror-smooth extruded aluminum. Translucent, shatterproof Dow Styron plastic panels.

## BACKED BY NATIONAL ADVERTISING

Ads in magazines like AMERICAN HOME, BETTER HOMES & GAR-DENS and other big consumer publications are building tremendous interest in SHOWER MAID, building public acceptance for you and the bathrooms in your speculative homes.

### 4 COLORS GO WELL WITH ANY BATHROOM DECOR

Choice of jewel-like plastic in Blue, Coral, Pearl Gray or Sea Green to blend perfectly with any decorating plan. All panels shatterproof, all colors are permanent.

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# are

eager...But...

You should see how eagerly we're turning out Bermico Sewer Pipe nowadays.

We're pleased so many people want Bermico. We're doing everything possible to push production to the hilt – and still maintain Bermico's unusually high quality.

Bermico — the cellulose, pitch-impregnated pipe for outdoor, underground, nonpressure use — is root-proof, corrosion-proof, light in weight, easy to install, and built to give a lifetime of trouble-free service.

Our sincere thanks for your patience. We're working toward the day when we can fill your orders the minute we receive them.

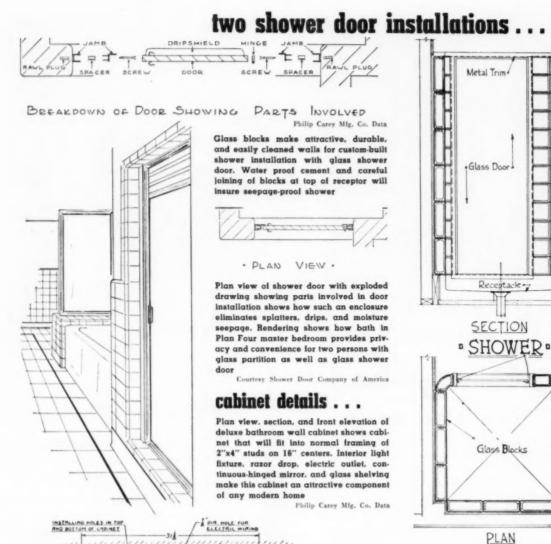


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PLASTER.

100

SECTION

41

SH ERE

ALL OPENIN

Kimball Glass Data



Adequate supply of pure water; adequate piping of suitable materials; fixtures of suitable materials and correct design; drainage system of good materials and design, properly installed to prevent clogging; provision for cleaning drainage system when needed; proper traps and venting of system; adequate sewers or sewage disposal system; proper inspection and testing of new installations; protection against contamination by back siphonage and against back flow of sewage; and adequate ventilation.

### AMERICAN BUILDER

WHITE SHELF

2- 34 + 20 2 MIRHORS

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18 x 27 MIRROR

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more and more Builders Specify

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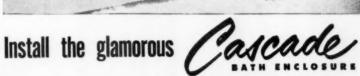
# Gulfspray Shawer Enclosures

- . BE READY TO MEET THE DEMAND! Have Gulfspray shower doors and tub enclosures readily available to your customers. Gulfspray is the "extra" they're looking for.
- FEATURING: smooth, overhead operation or piano-type hinges, scientifically designed drips (drain water back into tub or enclosure), heavygauge aluminum or stainless steel ... and wide selection of clear or patterned glass.

Write for details and literature Binswanger Dept. AB-4

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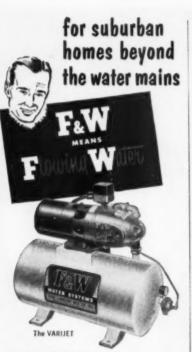
# A low cost feature that adds "sell" to any home you build!

A low cost leature that adds "sell" to any home you. The Cascade is made of lustrous, jewel-like Plexiglas, successor to glass where appearance and safety are paramount ... artistically fluted by FIAT to add sparkling splendor to any bathroom. The two rigid panels glide smoothly in aluminum track at the touch of a fingertip. Comes in Crystal Clear, Petal Pink, and Glamor Gold; fits any 5- or  $5\frac{1}{2}$ -foot recessed tub. Every home planned for a tub shower needs this beautiful bathroom improvement. Every woman will welcome the Cascade because it eliminates the old fashioned, floppy wet curtain and really keeps water off the floor.

See Sweet's  $\frac{24c}{FI}$  in Architect's,  $\frac{6b}{FI}$  in Builder's—or write for literature and new low prices.



FIAT METAL MANUFACTURING COMPANY Three Complete Plants: Franklin Park, Ill. (Chicago suburb) Long Island City 1, New York • Los Angeles 33, California In Canada: Porcelain and Metal Products, Ltd., Orillia, Ontario



### 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 VARUET (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 at its best, and ...

F & W Means Flowing Water by FLINT & WALLING MANUFACTURING CO., INC. 466 Oak Street, Kendaliville, Indiana



### Bathroom Fixtures

Bathtubs are made either of cast iron or pressed steel, having a hard coating of porcelain enamel which is resistant to abrasion and corrosion. Present style is for an apron tub having a skirt extending to the floor on all exposed sides and end. A roll rim, single-shell type of tub is made for economy installations, and is a great improvement over the old footed tubs. A great variety of styles are made: corner, recess, square, with or without seats, and either white or numerous colors. The 5-foot length of tub is usual, although 41/2- and 51/2foot tubs are made. The square tubs occupy a 4-foot square space, and solve many otherwise difficult space problems. A special receptor type of tub permits either showers or sitdown baths and occupies a space only 42 by 31 inches. When used with a corner lavatory, bathrooms can be fitted into a space as small as 6 by 5 feet. However, most building codes specify minimum room areas, including bathrooms

### Lavatories

Lavatories are of two general types: the flat-top style, having the fancets on the same level as the rim of the fixture; and the shelf-back model, having the supply valves on an inclined or vertical ledge. The flat-top style is most economical. Set about two inches away from the wall, it permits cleaning behind it, but the wall should be waterproofed against plaster damage. A variation has the faucets at rim level, but a straight back fitting against the wall for protection.

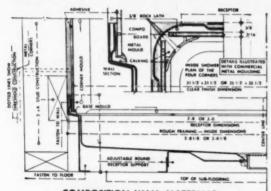
A new development in bathroom styling is the countertop lavatory. These are designed to fit into a counter top of linoleum, glass, laminated plastic, or other materials. Such an installation makes possible combining two lavatories in one counter top for greater utility; also, a dressing table may be added. Extra storage space or hampers below the counter are also a possibility.

### Toilets

Three major types of water closets are in common use; the siphon jet, the reverse trap, and the washdown. The washdown costs the least and the siphon jet is the most expensive. The latter is preferred because it has a deeper water seal, a larger trapway, a more positive flushing action, and a much larger water area. The modern styling of siphon jet bowls adds to the appearance of the bathroom in which they are installed.



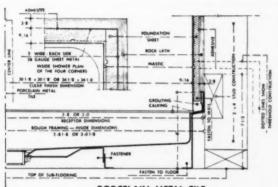
### shower recentor installation . . .



COMPOSITION WALL MATERIALS

Constructed with a non-slip surface, this basic shower bath receptor is designed to fit into any custom-built shower installation. Reinforced for structural strength, the unit is sound-proofed and completely self-contained. It may be used with a wide range of wall materials including ceramic tile, structural glass, metal tile, glass block, and a wide range of composition materials





#### PORCELAIN METAL TILE

### HOW MUCH WATER IS NEEDED?

### **Average Quantity of Water Required for Different** Services Supplied by Water Supply Systems

Each member of family	gallons	per	day
Each horse	gallons	per	day
Each dry cow or steer			
Each milk cow	gallons	per	day
Each hog	gallons	per	day
Each sheep 1	gallon	per	day
Chickens, per 100	gallons	per	day

### Approximate Flow of Water per Minute Through **Average Fixtures**

Shower Bath	gallons per minute
Tub Bath	gallons per minute
Lavatory	gallons per minute
Tank Closet	gallons per minute
Valve Closets	gallons per minute
Kitchen Sink	gallons per minute
Laundry Tub	gallons per minute
Flowing Drinking Fountain	gallons per minute
Garden Hose, 3/4" nozzle 5	gallons per minute
Flint	& Walling Mfg. Co. Data

APRIL 1953

COVER PROFITS Specify or Buy custom

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#### New Improved \* PROTECTUB

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is made of specially tough corrugated paper with a processed top liner that is water re-pellent and damage resistant. Comes in two pieces tailored to fit for overall protection

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Yes, once you install a PROTECTUB your worries are over and and your profits are safe. PRO-TECTUB is your finest day and night watchman against abuses by other tradesmen who follow your both tub installations.

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HAVE FIELD-TESTED and PROVED to the satisfaction of Federal Housing Authorities and tradesmen everywhere that PROTECTUB is the ideal product for the job. It's quick and easy to install and quicker to remove leaving a clean undamaged tub.

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### LEGION Seamless drawn stainless steel sinks and sink bowls for every purpose.

These are lifetime products no costly replacements.

Legion has the largest assortment of seamless drawn stainless steel sink bowls in the United States

Single, double and triple flat rim bowls in assorted sizes can be used with all types of tops - formica tile, linoleum, plastic or stainless steel. Hard wearing sink tops - designed for homes and apartments, Solid stain-

less steel or stainless steel over 34" plywood base (Pat.)

Write for catalogues.

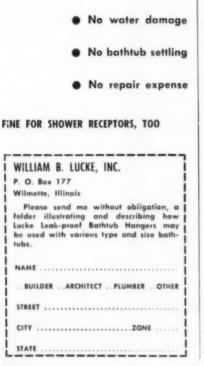
315

LEGION STAINLESS SINK CORP. 40th Avenue and 21st Street, Long Island City 1, N.Y. Branch offices: 21 E. Van Buren St., Chicago, III.; 420 Market St., San Francisco, Calif.

# NO CRACKS OR LEAKS HERE



Lucke Leak-proof Bathtub Hangers are DE-SIGNED to prevent leaks and cracks along the bathtub edges PERMANENTLY. Hundreds of installations have been in service for many years without cracks or leaks or repairs of any kind. When you install Lucke Leak-proof Bathtub Hangers you have no warranty worries.



Any of these types of closet bowls may be used with any type of tank; one-piece, close coupled, or regular wall-hung tanks. The washdown closet, for economy, is made only with wall-hung tanks, but the siphon jet and reverse flush bowls may be made also with close coupled or integral tanks. The close coupled tank generally sets away from the wall and is bolted to the bowl. The integral tank is cast in one piece with the bowl.

### Showers

An overhead shower will almost always be installed over the tub. The water and drain are there, and the additional cost of a diverter tub filler and shower head are negligible compared to the convenience of a built-in shower.

Shower valves may be part of the tub installation, where the diverter mixer faucet also controls the shower; a simple two-valve set-up leading to the shower head; a mixing valve, where one valve controls both the hot and cold water, or a thermostatic unit incorporating a mixing valve plus automatic temperature adjustment when the flow of either hot or cold water is changed by water demand elsewhere in the house.

### Cabinets and Accessories

The medicine cabinet over the lavatory, standard for years, has developed into a wide variety of bathroom storage units. Cabinets for toilet articles are larger, have bigger and better mirrors, and are also usually fitted with lights for shaving or makeup. Both wood and metal constructions are used. Built-in holders for tooth brushes, shaving accessories and razor-blade disposers are common, and one unit even features a locked compartment for dangerous medicines in households having small children.

#### Kitchen and Utility Fixtures— Sinks

Modern sinks range in size generally from 42 to 96 inches in length, and have more than ample workroom if their size is chosen according to the family's needs. It is desirable to install the two-drainboard sink if space permits. The double bowl sink, having separate compartments for dishwashing and rinsing is preferred by housewives.

Drainboard sinks may be obtained in widths of 42, 48, 54, 60, and 66 inches. For sinks built into a counter top, a 24 by 21-inch bowl is about minimum, while a 30 by 21-inch size gives better work room. Doublecompartment sinks for counter top installation are in 32 by 21-inch and 42 by 21-inch sizes. Cabinet bases of wood or metal can be had for sink installations in lengths of from 42 up to 144 inches. Longer units include cupboards or drawers in addition to under-sink compartments. Special brackets and drip mouldings are available for mounting sink bowl units in any type of custom-built counter top.

### Laundry Trays

Although there are available combination sink and laundry tray units which have two compartments, one for dishwashing and a larger one for laundry use, these are recommended only for reasons of greatest economy or space saving. Typically, a laundry tray will be provided in the basement or utility room, together with water heater and water softener in localities having hard water conditions.

Laundry trays are made of enameled cast iron, earthenware, or cement composition. One, two, or three compartments are supplied, with single compartment units being especially suited to installations in conjunction with automatic units.

### Water Softeners

Water softener units are a necessity in many areas. Any water having more than three grains of mineral salts per gallon is considered hard enough to require softening. A softener is an added sales feature for a home, and will soon pay for itself in savings.

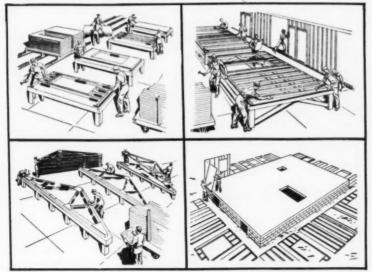
### **Hot Water Heaters**

Domestic hot water may be heated either by units built into the house heating system, or by separate gas, electric, coal, or oil heating units.

Electric heaters have a relatively large storage capacity. The operating cycle assumes that water will be heated in the storage tank at night, during the time of low power demand on the utility company's facilities. The hot water is then held in storage in a well-insulated tank for the next day's use, and enables an attractive rate to be offered for the electricity used. Such units should be of ample capacity, so that more than average use of hot water will not require the use of electricity during the day at higher rates.

Gas hot-water heaters are supplied in sizes to handle the needs of all sizes of families, and with different tank and insulating materials. A 30-40 gallon storage capacity is suitable for the average family of three or four. Tanks are of galvanized steel, porcelain-lined steel, or monel metal, and are priced and have greatest durability in that order. Insulating material is generally glass wool or fiberglass.

## prefabs...go up in a hurry...



rtesy Pease Woodwork Co.

Shop operations in the production of panelized construction usually comprise (1) assembly of framework; (2) installation of necessary wiring, framing for fixtures, duct work, water pipes and similar equipment; (3) attachment of the framing of window and door openings; (4) fixing insulation and wapor barriers in place; (5) attachment of cover materials and window and door trim; and (6) painting and other finishing

Prefabrication offers today's builders an opportunity for profit. with a choice between construction of "complete" homes prebuilt in the factory, and the use of prefabricated structural members to be assembled on the site in conjunction with conventional building techniques and materials. The prewar economy buildings and the wartime Ouonset hut have grown up, and so has the prefabrication industry. with dozens of firms selling homes and more than twenty who will provide a catalog from which may be selected stores, factories, offices. and warehouse buildings.

### **Opportunities** for **Profit**

For the individual contractor or builder with minimum capital to invest, "complete" prefabricated homes offer unique opportunities for profit. Financial risk is reduced because of greater assurance of de-



APRIL 1953

livery, quality control of materials and finishes, low overhead for the builder, and minimum investment.

Field erection is fast and easy due to accuracy of dimensions and fit, and the use of standardized sizes of structural members. Houses can be placed under roof in one day with the consequent advantage of sheltered construction for the rest of the work. Erection costs are thereby reduced and volume construction made possible.

The builder also benefits from the sales promotion and advertising aids of the manufacturer, as well as from the research and advisory services of the manufacturer's organization. Even financing is offered by some manufacturers.

### Economies-

Prefabrication makes economical use of building materials and manpower. Marked savings come

Component parts of preiabricated home at left include: (1) Truss supports; (2) Roof sheathing; (3) Roofing paper (4) Asphalt shingles; (5) Gypsum board ceiling; (6) Wall framing stud; (7) Upson board with moisture barrier; (8) Fiberglas insulation; (9) Plywood sheathing; (10) Asphalt barrier; (11) Shakes or siding; (12) Box beams; and (13) Flooring

## PREFABRICATED STRUCTURES and STRUCTURAL MEMBERS

Use of Prefabrication

Opportunities for Profit Salability

Combination of Prefabrication and Conventional Building Methods

Prefabrication Construction Methods

**Roof Design** 

Joint Design

Site Assembly

**Erection Procedures** 

Sequence of Operations

**Assembly of Panels** 

**Metal Prefabrication** 

FOR MORE INFORMATION ON PRODUCTS ADVERTISED AND DESCRIBED IN THIS CHAPTER PLEASE USE ONE OF THE PREPARED INQUIRY POSTCARDS IN THIS ISSUE.



# Where Else Can You Get This Outstanding Combination?

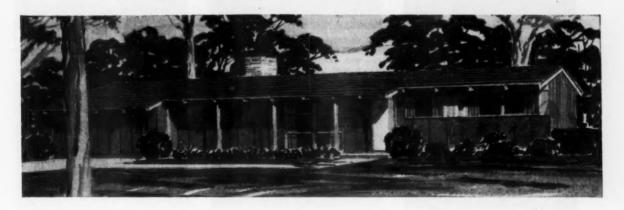
Exceptional Quality . Conventional Construction and Appearance • Architect Designed Homes Nationally Advertised Materials and Equipment Budget Prices . Fast Completion on the Site • Fourteen Models • Five Front Elevations for Every Model • Assistance in Site Planning-Financing - Decorating • Nationally Advertised Homes-FHA and GI Acceptable

### **Attention Builders**

We have openings in a number of localities for qualified builders. If you have sound financial resources and an established reputation for building welldesigned, high quality homes, this is an exceptional opportunity for you. Write today on your letterhead.



# BUILDERS-WHY EXPERIMENT ?



When **Scholz Designed** "California Contemporary" units enable you to take advantage of the terrific pent-up demand for contemporary design by giving you—

## **1. SURE COST and PROFIT FIGURES BEFORE YOU START**

## 2. UNPRECEDENTED SALES APPEAL

## 3. AT A COST WHICH IMMEDIATELY PLACES YOU AT AN ADVANTAGE OVER COMPETITION



See feature article in this issue which gives complete details on the **Scholz Designed** "California Contemporary" homes which sold out original project of 43 homes in 9 days and an additional 60 homes in 60 days in Toledo. These homes are being built for \$9 a sq. ft., an unmatched figure today in the Mid-West and are complete, including tile baths, woodburning fireplaces, thermopane, complete insulation, vent fans, hot waterradiant heat. This record is in the process of being duplicated in other cities. Midwest Millwork and Supply Corp. is now shipping these same units along with complete cost estimates,



engineered procedures, and cost-cutting techniques, to builders throughout the middle-west. Progressive builders can not afford to fail to investigate this combination of rock bottom controlled costs, building know-how and sales appeal.

Write today on your letterhead for complete information to

Scholz Designed CALIFORNIA CONTEMPORARY HOMES BY MIDWEST MILLWORK & SUPPLY CORPORATION 3662 KENWOOD BLVD. • TOLEDO, OHIO



1 First step in erection of prefabricated basementless home. Crew stakes out ground area for slab. Pipes and conduits are put into position



Concrete foundation wall must extend below frost line. Depth varies with climate of location. Inside area is filled with 4 inches of pea gravel



3 Continuous water-repellent blanket of sisalkraft paper is laid over gravel and foundation to give vapor seal, keep cold and damp from slab



4 Fiberglas insulation is laid around rim. Entire surface is covered with wire mesh, and concrete is poured. Slab is insulated and vapor-sealed



7 Second stage for home with basement is installation of either wood or steel posts, girders, and beams to give firm base for floor and walls



5 Finish coat of concrete is applied to entire area of floor slab. A smooth surface is provided to insure smooth floor when laid on slab



8 Laying finish floor for home with basement. Panelized sub-floor has already been installed. Finish flooring is laid on the job



6 First step in erection of home with basement is installation of foundation walls with openings for basement windows in place



9 Trailer trucks are loaded to conform with order in which panels and units will be required on the site. Care is taken to preserve finish of surfaces

Courtesy National Homes

## fast site erection of prefabricated units...

through the planned engineering of prefabricated homes, mass purchasing and the more economical use of building products in the factory.

Further savings are achieved at the job site. The dealer-builder of prefabricated homes receives the exact amount of materials needed for each dwelling. He does not "over-buy" to assure that ample supplies will be on hand to complete his houses. Few materials are wasted.

Much of the work on a prefabricated home is completed in the factory where power machinery and line production methods reduce man-hours. In the field, these

320

homes are erected with one-half to one-third the site labor required for conventional building.

#### Salability

Manufacturers' attention to design, which now ranges from the traditional to contemporary styles, with the inclusion of personalized features, has gained increasing acceptance and popularity for the prefabricated house.

Individual taste preferences are satisfied in a wide range of interior finishes—plaster, gypsum board, or almost any other type of wall covering—and in flexibility of room arrangements. Variation in elevations, ornamental exterior details and floor plans removes the element of sameness which formerly marked many low-cost homes.

The assurance of delivery to the customer, the reputation of quality materials and construction, and the low-cost feature make these prefabricated models particularly attractive for FHA and GI financing. They carry a high rating for such government approval, and are therefore easily marketable.

#### Combination of Prefabrication, Conventional Building Methods

For those who find it more practical to combine conventional onsite methods with prefabrication,



10 Trailer is backed up to one corner of home. Panels are erected directly from truck with no rehandling. First corner is being erected



13 With all walls and ceiling sections in place, work begins on roof. Men are installing ceiling purlins. Note notched rafters at right



16 With roof peak formed by two sections, roof moves rapidly towards completion. A total of only 3 or 4 hours puts the house under roof!



11 Center bearing-wall in position with first ceiling sections temporarily located. Note room size panels with doors, windows, and trim already installed



14 Carrying first roof section to its position. Notched rafters have been prepared to receive roof sections and speed erection



12 Men here are raising exterior panel that will complete the rear wall of this home with full basement. Quality control in factory insures "fit" on the site



15 With first roof section in place, second section goes up to meet it. Factory equipment such as large tenon saw makes 23 notches in raiter at one time



17 All roof sections are now in position and being nailed down. Pre-assembled gable ends will be moved into position next to complete roof structure



18 Shingling starts 3 to 4 hours after first panel is unloaded. Interior finishing, wiring, plumbing, landscaping, will require 10 days to two weeks Courtesy National Homes

## homes are under roof in one day...

there is an opportunity for profit in cooperation with an important member of the building industry the lumber dealer. Without going into "complete" prefabricated construction, the builder can still take advantage of some of the moneysaving features of prefabrication. Prefabrication by definition re-

Pretabrication by definition requires the use of factory production methods, and individual builders may have neither the equipment nor the storage space to develop these methods. By arranging to serve an individual builder, or group of builders, the lumber dealer may use his facilities to prefabricate on a profitable scale.

## **Roof Design**

Some units such as roofs are less adaptable to shop prefabrication in the form of panels than others and therefore rafters and roof boards may be pre-cut for site fabrication. The flat roof and simple gable roof are the most common prefabricated types. Pitched roofs can be designed for partial or complete prefabrication. Usually gable ends are prefabricated in sections for quick assembly at the site.

Design of gable ends is generally a simple matter of plywood or other sheathing fastened to studding with nails or glue. The roof is often of stressed-cover construction. Plywood or other coverage is often fastened to rafters on one side only, and the roofing is applied on the site.

#### **Joint Design**

Joint design is especially important in prefabrication because it not only affects the strength of such structures but also governs to a great extent the degree to which parts are interchangeable and the ease with which the structure can be erected. Three types of joints are discussed here: (1) those between panels; (2) those connecting



a choice of designs, with architectural styling by Dofson, famous Northwest designer.

· built of outstanding quality, kiln-dried lumber -in either precision-fabricated sections or pre-cut motoriale

• dimensionally flexible—on a modular system. (Ask us for the details.)

• you, the builder, profit with the wholesale package - pre-cut, shell or complete - shipped direct to you.

• you gain through the Virginia Lee fully tested labor-saving, time-saving, money-making methods. You gain through faster turnover, more sales, less details, less invested capital. You avoid costly mistakes, unnecessary waste and endless red tape.



• these homes have proved salability.

• these homes are easy to finance - FHA and VA accepted.

• on the basis of a record you can check, we urge you to write, wire or phone to Dept. 11 for the full story.



VIRGINIA LEE HOMES, INC. DEXTER HORTON BLDG., SEATTLE, WASH. "The West's oldest packaged home manufacturer" reasons w • Quality materials and workmonship Complete Factory-Built panels Delivered direct to foundation • Exected in less than 60 manhours • High appraisals, easily financed

Ford Homes are available in modern, or conventional style flexible in design to assure quick sales and satisfied customers. Triple profits — less labor — less

sales effort - lower cost, faster turnover, less invested capital, no material chasing with Ford Factory Built Homes. Send for free catalog and dealer application or visit our plant. Manufacturing franchise also avail-able beyond Northeastern trucking distance

the walls and floors to foundations; and (3) those attaching roofs to walls.

(1) Panel Joints-A major problem of joint design is that of concealing the joint lines. This is in no way connected with the strength or durability of the structure but is of great importance from the standpoint of consumer preferences

Exterior joints can be entirely concealed by attaching finish siding or some other coverage to the plywood or other sheathing at the site. but this increases cost. One treat-

Ivon R. Ford, Inc. McDonough, New York

• 50 models plus special designs Choice of exterior treatment

ment is to emphasize the joints with covering strips. A common practice with houses of modern design is to bevel the edges of abutting panels, which results in a V-joint. Interior joints may be similarly treated or covered with wallpaper, or accenting moldings, or insert strips.

The problem of seam treatment at joints is eliminated when roomsize sheets of wallboard are used and rooms are so planned that joints between sections of walls are concealed by intersecting partitions. Conventional moldings are then used to cover corner joints at walls, ceilings and partitions,



AMERICAN BUILDER

# in Today's Market ... with NATIONAL HOMES!

According to leading housing authorities, 84% of all homes built this year will cost under \$15,000, and the demand is largely centered on "open planned" homes.

You can satisfy this market with *luxuriously-styled*, *functionally-designed*, *precision-made*, *reason-ably-priced* National homes.

National Homes' 2, 3, and 4-bedroom sizes (some with bath and a half) range in price from \$7,000\* to \$15,000.\*

The MONTEREY (right) 3-bedroom house with rear living room, dual-purpose car port and many other great features, sells for about \$12,000\* with liberal profit to the builder.

As a National Homes' builder you buy all structural and component parts in a complete package from one reliable source... no inventory... no warehousing... no purchasing problems. Investigate National's profit opportunities today. Write or wire.

\*Prices are subject to local variations



(Above) The CORNELL, National Homes' 3-bedroom bouse, sells for approximately \$8,000.\* (Below) The BRENTWOOD, National Homes' 2-bedroom bouse, sells for approximately \$7,000.\*

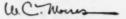
Both come in a choice of smart exteriors. These lowest cost homes open a tremendous market in the low income group, with the legal minimum down payment.



## Yearly Average with Nationals Exceeds 4-Year Total as Conventional Builder!

SAVAGE HOMES, INC., Utica, N.Y.

As a conventional builder, I put up 85 houses in the four years 1946-49. When you opened your Horseheads plant I took on the National line. Our first year we erected 50 units; the next year 98. For 1952, 110 Nationals. That's a yearly average of more National homes than our four-year output of conventionals!



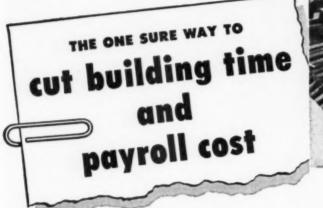


APRIL 1953



National Homes' prefabricated panels and structural parts as they leave the assembly plant carry the Good Housekeeping guarantee seal and the Parents' Magazine seal of commendation as advertised therein.







C. T. Hubbel Lbr. Co. Warehouse, Albany, N. Y. Contractor: Rosch Bros. Albany, N. Y.

The sooner you can get a contract completed, the sooner you can turn the job into cash . . . the sooner you can get started on your next building. Rilco Glued Laminated Wood Arches and Trusses help you do just that . . . without hiring a lot of extra labor or adding specialists to your payroll. Rilco structural members come to your jobsite ready to be assem-bled and swung into position. There isn't a sawcut to be made . . . not sholt hole to be drilled. Every piece fits perfectly . . . and goes together for any kind. There are standard alzes and twees for prestolly mer up of the

There are standard sizes and types for practically any sort of building . . and Riico engineers will be glad to work with you to develop special designs for any specific structure. Write for money-saving details.





## YOU SHOULD KNOW ABOUT **HOME-WAY** houses

Featured in LOOK

GOOD TERRITORIES OPEN for progressive builders who want to cash in on all advantages of prefabrication plus wide variety in prices, plans, features to meet every magazine, Feb. 10. 1953, as a product buyer's needs. High quality. Approved under modern of one of America's building codes. Liberal advertising-merchandising program. 15 leading prefab- Good profit morgin. WRITE FOR DETAILS.

GBH-WAY HOMES, Inc., Dept. DB, Walnut, III.



School Gymnasium at Bennett, Colorado

Laminated PRODUCTS, INC. 2511 FIRST NATIONAL BANK BLDG. ST. PAUL 1. MINNESOTA



Courtesy Richmond Builders, In-

The prefabrication industry has been highly successful in furnishing quality homes for middle and lower income families. One-story ranch type home above, with flat roof carport, arrives at site with exterior siding applied and prime coated, interior walls applied and finished, windows complete with weather stripping, screens and doors ready to install



Courtesy G B H-Way Homes, Inc.

Lenders like prefabricated homes because they know exactly what house will be like when completed, what final cost will be, approximately how long it will take to erect. Homes such as this semi-luxury ranch type with attached two-car garage are built with standardized panels, are ideally suited for later expansion as interior partitions are non-load-bearing and may be rearranged easily

ricators.

The principal problem, however, is to obtain an effective linkage of the component parts of the walls. partitions, floor, ceiling and roof. Methods include bolted joints between panels and at corners; joint between panels utilizing male and female studs; corner joint with cover of one panel overlapping edge of other: mullion joint; corner joint with mullion: joint consisting of plywood tongue fitted into groove between a pair of studs of opposite panel: spline joint in floor panels. (2) Joints Between Foundation.

Floor and Walls-Joints between roof and walls must of course anchor the entire building. A general practice is to join the floor to the foundation sill, which has been fastened to the foundation and the walls to the floor.

Other techniques used are: recessed foundation sill with wall panel overlap; sill plate bolted to foundation, conventional joist and floor construction, and prefabricated wall panel with base opening for electric wiring; and floor and wall panels clipped to foundation by means of channel fitted with flange for wall support.

(3) Joints Between Roofs and Walls-Joints between roofs and walls must function to resist both lateral and lifting forces such as high winds, and to resist outward thrust. A joint similar to that in the conventional pitched roof framed with rafters and joist can be applied to a prefabricated house. The roof rafters are pre-assembled with plywood coverage in sections and nailed to the ceiling joists at the building site.

#### **Erection Procedures**

Most prefabricators plan their assembly operations to get the outer shell under roof in a day or less. Everything that will contribute to speedy shell assembly, including the laving of base plates for wall panels, should be done beforehand to help speed shell erection. All equipment needed to move and lift panels into place and fasten them together should be at the site, ready for use. Careful planning of details, from the loading of the truck at the shop so as to permit unloading of panels in the order needed, to an orderly plan of erection of panels in sequence is strongly advised by experienced builders.

All parts can be numbered in sequence of erection and such numbers clearly stenciled before leaving the shop so that loading will follow an orderly pattern and confusion on the site be avoided.

# More and More of America's New Homes are FABRICATE

Swing of Builders to Prefabrication Sets **New Records as Industry Celebrates** 

S year gruph showing Prefabrication's sharper rate of growth as compared with total single family home construction.

1952

10th Anniversary

Responsible for the spectacular gains of Prefabrication is the fact that Prefabrication delivers the utmost for the building dollar. New sales records continue to be set in the Prefabricated field because Prefabrication provides permanent, attractive homes geared to comfortable living and meets housing needs quickly and economically. Furthermore, Prefabrication's modern methods result in greater savings, from economy model to luxury home. In 1953, as it celebrates its 10th Anniversary, the Prefabrication Industry is ready for its greatest year. Join this big swing to Prefabrication.

Today, write for FREE booklet, "Build Better, Build Sooner."



MANUFACTURERS' INSTITUTE Washington 6, D.C. Prefabrication is the answer to increased profits for the builder of large projects. Richmond Homes will prefabricate your entire project, using your own successful plans to create a variety of exterior elevations. You can build faster, at lower cost, with fewer headaches, when

NE

10RIZONS for project builders

you use Richmond Homes. Sections are shipped with BOTH interior and exterior finish applied. Richmond Homes are regarded by competent builders as the shining example of the finest in prefabricated homes because of conventional construction features and custom-built appearance. Investigate the tremendous profit possibilities . . . today!



Our program, naturally, has certain requirements relative to the financial status and experience of the builder. If you feel that you can qualify, we would like to hear from you. Write, wire, or phone for complete information. New 1953 brochure now available.

RICHMOND homes

RICHMOND HOMES, INC. 440 Northwest "K" Street, Richmond, Indiana

## Dealers say: "Norge owners are real sales boosters!"



We think the Norge Home has the maximum of good features-easily constructed, low labor cost, beautiful exterior as well as interior, and minimum upkeep. We are tremendously pleased in every respect with this house.

The only insulation in the house is loose rock wool in the ceiling, and the heating has been very satisfactory during the coldest days that we have had-about zero. The total cost for oil from October to March was \$75.00." -Brandon Hagey

## "Each Building is a Standing Advertisement!"

The enthusiasm of Norge Home owners prompts letters, similar to one received from Norge dealer Robert Nicholson, of Oak Ridge, New Jersey. In part, Mr. Nicholson wrote: "We have sold over forty Norge Homes. It is a thrill to meet prospective home buyers who tell us how completely satisfied their friends are with their Norge Homes. Norge owners are real sales boosters, and each of the erected buildings is a standing advertisement."

## **Erected in Just Thirty-two Hours!**

Norge dealer E. Burke Finnerty, of Haskell, New Jersey, who received a Norge franchise earlier this year, writes: "The elapsed time, from the moment the first bundle of lumber hit the ground, to the finished building, was thirty-two working hours. The crew of four men, who erected this Forest Hills model building, have put up a total of thirty-one buildings."

## **PATENTED INTERLOCKING SYSTEM!**

The secret of the speed with which the Norge Cottage can be

erected lies in the special manner of inter-locking the various planks and boards. This unique and exclusive process is known as the Tregaard Interlocking System. The smaller cottages can be erected in a day, on pier or solid wall foundation, and no elaborate plans are required-only a few simple directions.

STURDY CONSTRUCTION

The tongued and grooved two-inch thick wall planks, with precision interlocking at both ends, assure maximum strength and rigidity. And the longer the cottage is up the stronger it becomes structurally. Because of the unusually sturdy construction, the Norge Cottage is an all-weather cottage.

21 West Street, New York 6, N. Y.

NORGE COTTAGES, INC.

18

choice

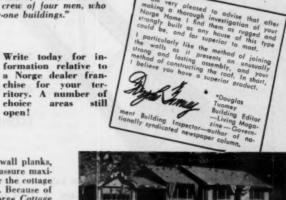
open!

chise for your ter-ritory. A number of

areas

NORGE "PRE-CUT" COTTAGES





Model Home of E. Burke Finnerty & Associateseracted in thirty-two hours!



Interlocking

Device Eliminates Nail-ing Throughout. [Patent No. 2588814]

613

## LACLEDE STEEL COMPANY

St. Louis, Missouri

Producers of Quality Steel For Construction and Industry.

## FOR STRENGTH .... ADAPTABILITY . ECONOMY ....

Lincoln High School in East St. Louis, Illinois S. T. Pabst, Architect; Ferd Ganschinietz, Contractor

Steel

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Specify these Laclede Products for your construction needs

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A 18

## ... use LACLEDE STEEL JOISTS

FASTER CONSTRUCTION—light,—easily handled—prefabricated to speed the job.

ADAPTABLE—Laclede Steel Joists combine efficient structural function with architectural versatility.

**ECONOMICAL**—Laclede Steel Joists assure you more room at less cost. Their high strength *plus* light weight provide substan tial savings in foundation and framework. Utility conduits, pipes and lines are easily threaded through the open webs.

Multi-Rib Reinforcing Bars 

Steel Pipe

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Steel Joists

Welded

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Wire

Round

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Steel

Centering

Electrical

Weld

and

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LACLEDE STEEL COMPANY

St. Louis, Mo.

AMERICAN BUILDER



ETAL building products used in light construction are far too numerous to catalog or describe in detail in this article. Plumbing, heating, wiring, appliances and fixtures in bathroom and kitchen, as well as numerous structural parts of the home use metal, either because of cost, ease of handling, strength, wear resistance, or some other special property no other material possesses for the job.

## STRUCTURAL MEMBERS

The American Institute of Steel Construction specifies twelve advantages to steel construction: strength. uniformity of material, endurance under stress and service load, toughness against shock, adaptability, versatility for design, fire safety, compactness in space, speed of construction, salvage value, economy of material, and service from a giant industry.

## Framing

Steel joists and complete steel framing in light construction have been found economical by many builders. Panel assemblies with nailable steel framing members may be partially fabricated at the shop of the steel distributor. Shop prefabrication can be supplemented by site cutting and final assembly. Assembling steel members on the site requires a power saw and portable welders. The nailable feature of the framing members makes it possible to apply other conventional materials to studs and joists with 8d nails

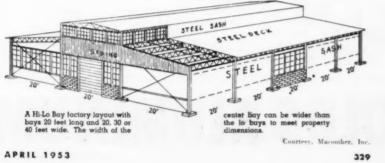
Insulating board sheathing may be applied directly to the studs for the exterior wall. Dry-wall construction is possible inside without furring because of the nailable feature of the studs.

A number of manufacturers are now producing a wide range of standard sizes and shapes useful in bridging, trusses, or as joists, many of which units are to a large degree prefabricated by the manufacturer. ready to use.

#### **Columns and Posts**

The familiar concrete-filled steel column has long been recognized as one of the strongest building members. It is fire-resistant, economical to install, and takes little space. These columns may either be fixed or adjustable, and may be filled with concrete by the manufacturer or on the building site.

These columns are available in diameters from 23/4 inches to over 12 inches, and lengths from 5 feet to 20 (Continued on page 334)



## METAL BUILDING PRODUCTS

## Structural Members

Framina **Bridging and Trusses** Columns and Posts Reinforcing Rod and Wire

Functional Shapes

Gutters, Roof Valleys Duct Work Cornices, Edges Beading

Metal Lath -

**Partition Systems** 

Sheets and Panels

Ceilings Roofing Flooring Siding

**Special Doors** 

Access Doors Cleanout, Ashpit Basement Bulkhead Chute Doors

Fireplace and Chimney Units

Metal Barn Equipment

**Ornamental Metal Work** 

**Fences and Gates** Grilles Brackets Railings

Louvres and Jalousies

Metal Trim and Mouldings

FOR MORE INFORMATION ON PRODUCTS ADVERTISED AND DESCRIBED IN THIS CHAPTER PLEASE USE ONE OF THE PREPARED INQUIRY POSTCARDS IN THIS ISSUE.

## Gives you a selling edge on competition ... AT LOWER COST

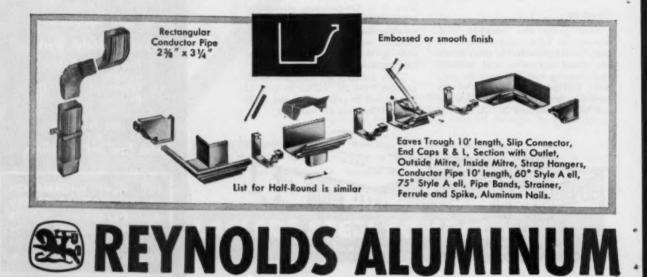


5" Ogee and Half-Round Gutters in smooth and stippled finish. Also 6" Industrial Half-Round.

330

# REYNOLDS Lifetime ALUMINUM **GUTTERS AND DOWNSPOUTS**

That bright edge around the house advertises you as a modern builder. And the figures show you're a smart builder . . . when you buy rustproof permanence at lowest cost, and save still further by easy slip-joint application without soldering. You do better for yourself and for your customer with the permanent, non-staining beauty of Reynolds Lifetime Aluminum Gutters and Downspouts. Complete with all fittings . . . check your supplier. For literature and application details write to Reynolds Metals Company, Building Products Division, 2003 South Ninth Street, Louisville 1, Ky.



The Rustproof Flashing That Costs Less, Works Easiest, Looks Best...

REYNOLDS Lifetime

NANDY FOR NUNDREDS OF FARM HOME and SHOP USES

REYNOLDS METALS



# **ALUMINUM FLASHING**

Aluminum costs much less than any other rustproof flashing . . . but that's just the first advantage. It's also easiest to handle, form, cut. It looks best. And it cannot cause stains.

Check your supplier for types of Reynolds Lifetime Aluminum Flashing listed below. Once you've used this modern metal, you'll make it standard for all your flashing use. Write for literature. Reynolds Metals Company, Building Products Division, 2003 South Ninth Street, Louisville 1, Kentucky.

> IN 50-FOOT ROLLS—14", 20" and 28" wide. .019" thickness (26 U. S. Std. Gauge).

> IN FLAT SHEETS—28" wide, 6', 8', 10' and 12' lengths. Also all-purpose display carton of ten 18" x 48" sheets. All in .019" thickness.

> > ALUMINUM

331

No Rust, No Stain, No Deep Setting or Puttying . . . when you use

## REYNOLDS Lifetime ALUMINUM NAILS

Roofing nails, wood siding nails, common nails, aluminum siding nails, cedar shake nails, wallboard nails, gypsum nails, asbestos shingle nails.

EYNOLDS ALUMIN



To install, simply bolt or screw Standards to wall or Standard in Standard for island displays Place heal of bracket in proeve of Standard, Insert single holt: slide bracket to desired spot on Standard. Tighten bolt.



3 standards and 6 brockets make this hardware display counter.

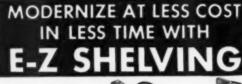


6 standards and 12 brackets make this work bench.

Hi S

HOW TO MAKE

YOUR OWN



CLAMP BITES INTO STANDARD -- LOCKS BRACKET & STANDARD LIKE A VISE

#### HUNDREDS OF USES IN STORES, FACTORIES, GARAGES, HOMES, ETC.

"E-Z" Brackets and Standards are strong enough to carry the heaviest murchandise for hardware, build-ing supply stores and lumber yard display rooms; or wall shelving, counters, island, table, and other type displays

In addition to providing low cost, modern store fixtures for tools, paints and hardware, there is a quick sale and liberal profit on "E-Z" Brackets and Standards for Building Supply Stores and Hardware Stores selling to grocery, drug, and other type stores, factories, home builders, etc.

#### A BIG SALES PRODUCER FOR **BUILDING SUPPLY STORES**

Write for "E-Z" Catalog pages showing many additional uses, installation plan book, and dealers price list.

Standard Steel Works NORTH KANSAS CITY, MO. Dept. AB-1

## **10-Day FREE Trial How To Make** Your Own Furniture

Make it yourself! Easy-to-follow, step-by-step directions in this big new book show you professional methods and tricks of the trade. Everything you need to know to make attractive, sturdy places for every room in the bo Have fun-and save up to 80 c of the cost of store-bought articles' Gain

Every job is explained in careful detail. Nearly 400 large, clear drawings show exact working procedure for each step. Professional methods given for setting up shop, choosing tools and equipment, selecting proper varieties of wood cutting and joining operations, scraping, raising the grain, staining varnishing, bleaching, toning, antiquing, designing furniture-everything you'll

This interesting, heavily-illustrated book has nearly two hundred big S12 x 11 inch pages. It costs only \$3.95. You'll save five to ten times this amount on

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Please send me for a FREE working trial a copy of HOW TO MAKE YOUR OWN FURNITURE. If after 10 days I am not completely delighted. I will return the book and owe nothing. Or. I will keep the book and remit \$3.95 plus a few cents for postage and handling in full payment.

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City. State SAVE MONEY! Send \$3.95 with your order and we pay postage and handling. Same return privilege guaranteed. Your money refunded if not satisfied.



Coffman "Standardized



Easy to Handle Easy to Install

## "BIG PROFIT," says N. J. Dealer

"I used to be afraid to handle ornamental iron, so I sent my business to local iron shops. A year ago, I investigated Coffman 'Standardized' ornamental iron. When I discovered how easy it is to stock, the profit I had been missing, I started to include it on the material estimate sheets for our builders and contractors. We all learned that Coffman standardized ornamental iron is easier to install than a door or a window. Now all of us are making profit we previously overlooked! Now all of us are Coffman boosters!"

-R.H.J., Newark, N. J.

If you are not stocking Coffman porch posts or rails, you are missing easy profit! Investigate today! Remember there is a stock size Coffman post or

FREE: .Write for descriptive catalogue on all Coffman products and complete information on our amazing free air mail blueprint service.



YOU CAN MAKE THESE PIECES YOU CAN MARE THESE PIECES Source, Pipe Rox, Hanging Bookshelf, Stand-ing Bookshelf, Cutlery Tray, Spice Rox Lamp Rase Sastenek Coffee Table, Lamp Table, Trestie, Bining, Table, Bino, Load Table, Butch Table, Modern Tray Table, Loame-Neig Chair, Chaise Lamge, Modern, Bed-Stead, Low Post Redstead, Ta., Poet Rod-stead, Welsh Dresser, Used of Brawess, Fraund Deek, Corner Confessatt, Side Chair

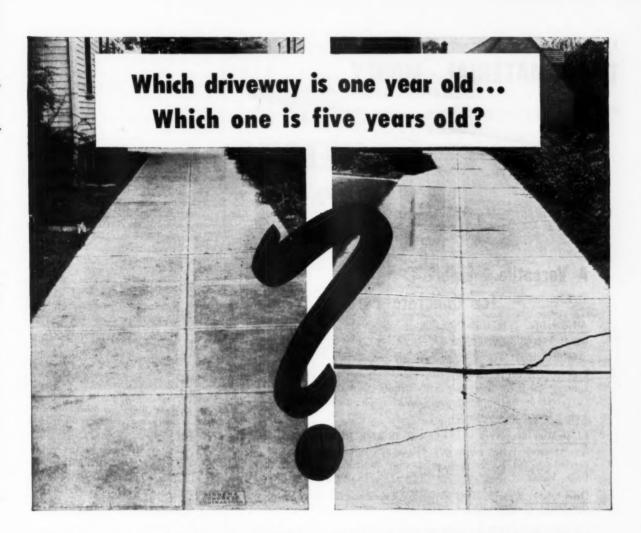
#### AND THESE BUILT-INS, TOO

AND THESE BUILT-INS, TOO Reversard Booksnelf Cuphoral Corner Cup-board Uson-Flanking Bookcase, Three-Init Counter and Cuphorad Closet, and Dressing Table. Alcose, Corner Seat, Closet. -Bunk-beak, Divan with Pravers, Twin Beds with Bookshelf-Desk. Sofa with Bookcase and End Tables. Wall Angle Cabinet, Corner Counter with Drop Table. Bathroom Kitchen or Bar Counter, Bouble Bunks, Detached or Atlached, Cabinet Table for Corner Beds.

rail to fit any porch or entrance.







**B**OTH driveways are located in the same city, and subject to the same climate conditions. You would expect that the cracked and broken driveway had been built five years ago, and that the one with unbroken paving had been built recently. Actually the reverse is true. The one on the left was constructed five years ago with American Welded Wire Fabric reinforcement; the one on the right was built a year ago without reinforcement.

Here is dramatic proof in pictures of the value of welded wire fabric. In driveways, foundations, sidewalks, terraces—in any concrete construction which goes into building a house—the proportionately small cost of American Welded Wire Fabric reinforcement pays off big dividends in *long-lasting* service and good looks. American Welded Wire Fabric's small, evenly-spaced steel members bind foundations, walls and floors into a solid unit . . . eliminate the common causes of cracked plaster,

UNIT

ED

warped floors, sagging baseboards and other damages which detract from the dollar value of a home.

Now, more than ever, prospective home-buyers are demanding real value for their money. That's why the

use of American Welded Wire Fabric can do much to assure quicker sales and satisfied buyers. It is easily handled, quickly laid, You can get  $U \cdot S \cdot S$  American Welded Wire Fabric in every locality from jobbers' and dealers' stocks.

If you'd like to receive illustrated folders, just drop a line to American Steel & Wire Division, Room 842, Rockefeller Building, Cleveland 13, Ohio.



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EVERY TYPE OF REINFORCED CONCRETE CONSTRUCTION NEEDS

U·S·S AMERICAN WELDED WIRE FABRIC

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Adjustable. Turnbuckles provide convenient method of cambering to correct for deflection before or after concrete is poured. Special connections provide large curvature for arch centering.

**Ease of Handling.** Webrib HICO girders weigh only 25 lbs. per running yard; one man can easily handle one section. Two men can erect or dismantle shoring covering one thousand square feet in less than 40 minutes.

**Clear Working Area.** On spans up to 27 ft., there is no need for cranes or jacks. All weight of the newly-poured concrete is carried by the beams and walls, with no load on newly-laid floors below.

**Durability.** Webrib HICO girders have been re-used hundreds of times with no appreciable sign of wear.

An illustrated brochure showing Webrib HICO girders adapted to various types of concrete forms is available upon request.

Franchises available to qualified distributors Patents Pending
•Trademark



Note case of handling Webrib HICO Girders



Intermediate Section 37"



 Webrib Steel Corp. Dapt. AB-1

 120 Broadway

 New York S, N. Y.

 Please rush further information regarding Webrib

 HICO girders.

 1 am a Builder, Contractor, Dealer

 Distributor

 Name

 Address

 City

 State

Intermediate section 24"

334

WEBRIB STEEL CORP.

120 BROADWAY NEW YORK 5, N. Y. (continued from page 329)

feet. Fitting in with modern demand for maximum usable floor area, these columns usually require from ½ to ½ the space that "H" column boxed pillars would need. They may frequently be concealed in the thickness of walls or partitions for a further gain in space saved.

#### Reinforcing Rod and Wire

Reinforcing rod and wire mesh play an important part in concrete slab construction. Most prefabricated concrete slabs and joists embody some form of reinforcing rod. Loadbearing walls of combined brick and concrete construction usually contain rods also, and site-fabricated concrete slabs for floors, as well as for driveways and walks, usually contain wire mesh fabric of some kind. Other kinds of wire mesh are used for reinforcing concrete siding and for reinforcing the mortar used in tying brick veneer to sheathing.

Steel rod is also used to anchor ends of joists to concrete or masonry supports. When they rest on steel supports, welding is preferable. Steel strap functions similarly in holding up pipe, conduit, and ductwork in many locations throughout the modern building.

#### FUNCTIONAL SHAPES

Metals commonly used in a wide range of functional shapes and designs include aluminum, steel, galvanized sheet metal, stainless steel, bronze, nickel-silver alloys, brass, and copper in various qualities. Some shapes are made by forming sheets into the desired shape; others are extrusions of heated metal through dies or molds to produce bars with the desired shape in uniform cross-section the full length of the stock.

#### **GUTTERS-ROOF VALLEYS**

Stainless steel, copper, aluminum, and ordinary galvanized sheet metal are all used to provide roof drainage. Copper has for years demonstrated its long-lasting qualities, and stainless steel and aluminum are not far behind. Trough design for strength is important. Pipes and elbows should have tight seams, either double-locked or welded. Styles of trough and pipe may be either round or box-type.

Advocates of stainless steel stress its high strength-weight ratio which makes possible use of longer sections and easier installation, with fewer joints and hangers.

(Continued on page 343)

AMERICAN BUILDER



VALUE TO NEW

ND OLD HOMES



WESTWIND CANOPY - 50" wide, 32" deep, 13" high. With hanging plate, drain channel, hardware and instructions. Colors: green and white, red and white, blue and white. Shipped knocked down. Shipping weight 16 pounds.



M AWNINGS, **IOPIES, SHUTTERS** 

## Saves "On the job" construction costs .

Builders and contractors everywhere are raving about these economical all-aluminum FAWSCO home beautifiers that are installed so easily and quickly. All aluminum, with a baked enamel finish, FAWSCO canopies are unconditionally guaranteed . . . never rust . . . never rot. They give all-weather protection summer and winter. Select FAWSCO canopies from a variety of styles in any one of these colors: Green, Red, Blue, or White. Write for catalog illustrating the canopies, and other FAWSCO building products.

Write for free Colored Catalog

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## FAWSCO Manufacturing Co.

Cuyahoga Falls, Ohio

Please mail me illustrated 4-color FAWSCO catalog.

NAME\_

ADDRESS.

CITY

Print name and address plainly, clip and mail today.

\_\_\_\_\_



WEATHER-GUARD CANOPY - 13" high, 32" deep, two widths 48" and 54". With hardware and in-structions for easy installation. Colors: green, red, or blue, with white scallops. Shipping weight 48" - 91/2 pounds. 54" - 10 pounds.



WEATHER-GUARD AWNING – Drop 25½", projection 24", width 36", 42", and 48". With hardware and instructions. Colors are solid green, red or blue with white scallops. Shipping weight  $36" - 7!/_2$  pounds.



lae.



## STEEL JOIST DESIGN TABLES

## TABLE OF STEEL JOIST DIMENSIONS

Steel	Main Di	mensions	Web	Top	Top Chord	-2 A	ngles	Bot. Chord-	-2.4	ngles	
Joist	Depth	Panel	Diam-	Chord	-	Area			Area		Weight
Type No. •	"D"	Max. "K"	eter "d"	Sec- tion	Size In.	Sq. In.	In.	Size In.	Sq. In.	"YB" In.	Pounds Per Foot
SJ 81	8"	1' 4"	14.	1	1 x 1 x.11	.410	.300	1 x 1 x.11	.410	.300	3.80
82	8"	1' 4"		2	1 x 1 x.13	.485	.300	1 x 1 x.11	.410	.300	
102	10"	1' 4"	111"	2	1 x 1 x.13	.485	.300	1 x 1 x.11	. 410	.300	
103	10"	1' 6"	130	3	1 x 1 x.16	.593	.310	1 x 1 x.13	.485	.300	4.85
104	10"	1' 6"	43"	4	114x114x.15	.716	.370	1 x 1 x.16	. 593	.310	5.90
123	12"	1' 8"	170	3	1 x 1 x.16	.593	.310	1 x 1 x.13	.485	.300	5.10
124	12"	1' 8"	25"	4	114x114x.15	.716	.370	1 x 1 x.16	. 593	.310	6.10
125	12"	1' 8"	12"	5	11/x11/x.19	.867	.385	11/4x11/4x.15	.716	.370	7.05
126	12"	1' 8"	1 41"	6	11/4x11/4x.23	1.040	:395	11/x11/x.19	.867	.385	8.05
145	14"	1'10"	11		11/4x11/4x.19			11/4x11/4x.14	.660	.370	7.20
146	14"	1'10"	5/8"	6	114x114x.23	1.040	.395	114x114x.19	\$67	.385	8.50
147	14"	2' 0"		7	114x114x.28			11/4x11/4x.23			
166	16"	2' 0"	1 33"	6	114x114x.23			11/4x11/4x.19			8.60
167	16"	2' 0"	11."	7	114x114x.28	1.243	.410	11/x11/x 23	1 040	.395	

\*Steel Joist Type Marking indicates depth of joist and top chord section.

torres La lede Steel Co.

#### TABLE OF STEEL JOIST DESIGN PROPERTIES

Steel Joist Type No,		roperties tandards	Maximum Suan	Steel	Design I S. J. I. S	Maximum Spar	
	Resisting Moment in Inch Pounds	Maximum End Reaction Pounds	Developing Full Shear	Type No.	Resisting Moment in Inch Pounds	Maximum End Reaction Pounds	Developing Full Shear
SJ 81	29,500	1,600	6' 2" 9' 1"	SJ 125 126	142,000	2,500 2,700	18' 11" 21' 7"
82 102	52,500 63,000 82,000	1,900	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	145	156,000	2,900 3,100	17'11"
103 104	100,000	2,200	15' 0"	147	246,000	3,400 3,200	24' 1"
123 124	92,000 115,000	2,200 2,300	13'11" 16' 8"	166 167	232,000 281,000	3,600	26' 0"

Courtesy Ladede Steel Co.

## Attractive Ornamental Railings, Porch Columns, Stairways, Fire Escapes By METAL CRAFTERS

"Railing Specialists" since 1925

Special equipment and expert craftsmen insure fine workmanship together with attractive design. Built-to-order and stock designs. To be sure of enthusiastic customer acceptance . . . feature "Metal Crafters" metal work.



## - LIBERAL DISCOUNTS TO DEALERS -Prepaid Deliveries ... Write for Free Catalog METAL CRAFTERS 1756 E Avenue N.E. . . . Phone 3-9639 . . . . Cedar Rapids, Iowa

In CANADA: Ramson Metal Crafters, Ltd., 1558 Howard Ave. . . Windsor, Ontario

## America's foremost ornamental Iron plant

TENNESSEE Jabricating

Offers you its facilities to-expand your business and create new profits. Ornamental Iron can be # used on almost every



A group of standard columns, rails and brackets of ready-to-install Ornamental Ironwork is available for prompt

and new work. A complete design service is available with no cost to you or your clients.

construction in both remodel delivery, enabling you to work in close harmony with your customers. Special construction is

suggested for subdivision projects.

Illustrated below are seven of the hundreds of standard castings manufactured by TFC











Through TFC, you may use Ornamental Ironwork comparable to the above installation, with prices competitive to millwork.

TENNESSEE FABRICATING COMPA 1490 GRIMES ST. MEMPHIS, TENNESSEE

## DESIGNERS FABRICATORS MANUFACTURERS



- RAILINGS
- COLUMNS
- PARTITIONS
- BALCONIES
- DOORS
- ACCESSORIES
- GATES
- BRACKETS
- GRILLES
- NOVELTIES
- PORCHES
- SUMMER HOUSES
- TRELLISES
- PORTE COCHERES
- HOUSE MARKERS
- WEATHER VANES



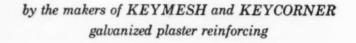
# KEYSTONE'S KEYSTONE'S KEYSTONE'S KEYSTONE'S KEYSTONE'S

## FOR STRONG, ECONOMICAL, "TRUE" PLASTER CORNERS

Plasterers, lathers, architects, contractors, builders and dealers will find Keybead an easy-to-use, easy-to-handle plastering help. It is recommended for use where strong, economical, "true" plaster corners are a requisite on the job.

Quick and easy to lath, Keybead combines open-mesh reinforcing with a precision-formed bead. The open-mesh design of Keybead permits plaster to flow through the steel wires and give a generous bond of plaster to lath—a solid plaster corner results. This thorough steel wire embedment combined with the true-formed bead makes strongly reinforced, crack-resistant plaster corners. And, to prevent rust streaks, Keybead is galvanized, too.

Keybead is made in 7', 8', 9', 10' and 12' lengths; 5" width providing  $2\frac{1}{2}$ " wings, 18 gauge 1" mesh, packed in convenient cartons. Write for further information and prices.



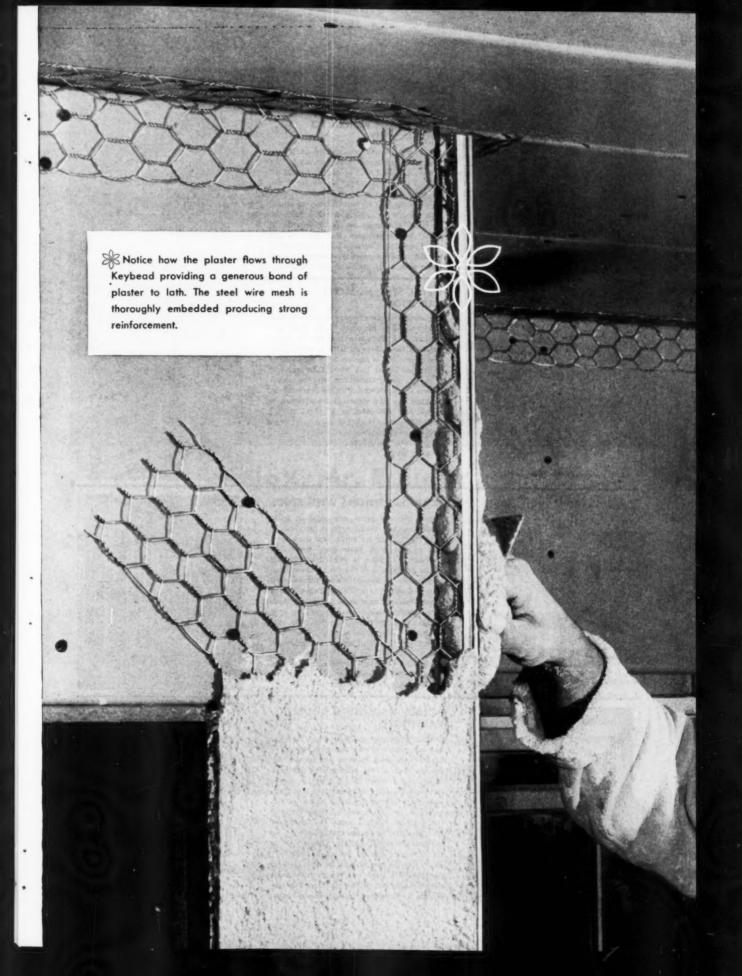
## **KEYSTONE STEEL & WIRE COMPANY**

## Peoria 7, Illinois

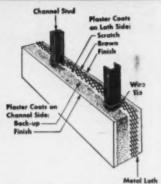
KEYMESH · KEYCORNER · KEYBEAD · KEYWELD · KEYSTONE NAILS · KEYSTONE TIE WIRE · KEYSTONE NON-CLIMBABLE FENCE · KEYSTONE ORNAMENTAL FENCE



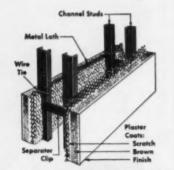
4293 Bandini Blvd. 930 19th Ave. 1800 N.W. 16th Ave. 1544 First Ave., So os Angeles 23, Calif. Oakland 6, Calif. Portland 9, Oregon Seattle 4, Washing Zd 11a 3d Ke Ke Ke







#### Matal Lath and Plaster Solid Partition with Channel Stude



**Metal Lath and Plaster Hollow Partition with Channel Studs** 



## metal lath

#### METAL LATH NAILED TO WOOD STUDS

If the wood studs are spaced at 16" or less, diamond mesh or flat rib metal lath can be fastened with 4d common nails, 1" roofing nails with 7/18" heads, or 1" no. 14 gage wire staples. For studs spaced 24" apart, %" rib metal lath or sheet lath should be attached with nails or staples %" longer so as to provide at least %4" penetration into the vertical wood supports. Common nails, when used, should be bent over to engage at least three strands of diamond mesh lath.

#### METAL STUD HOLLOW PARTITIONS

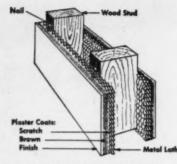
Prefabricated metal runners (often called track) are first fastened to the floor and ceiling. The studs are fastened to these runners, then 18 gage wire is used to the the metal lath to the studs at 6" vertical spacings. Metal lath should be applied with the long dimension of the sheet across the studs and with the lower sheet lapping over the upper. If the partition is more than 10' long or 9' high. a 34" stiffening channel should be placed horizontally in the hollow space every 4' to 6' of partition height and wire-tied rigidly to each stud.

#### **SOLID PARTITIONS WITH STUDS**

When channel studs are used in solid partitions, the metal lath is applied to only one side of the studs, and the sheets are placed with their long dimension horizontal. Lathing is started at the top of the partition with the lower sheets lapping over the upper. Wood grounds are tied to the lath or studs with wire before plastering and are used to fasten cabinets, chair rails, wood paneling and fixtures to the partition. Conduit, pipe and backs of outlet boxes should be covered with a strip of metal lath and a minimum plaster thickness of 1/2". A complete line of shallow electrical switches and outlets is manufactured for use in solid metal lath and plaster partitions.

## SOUND INSULATING DOUBLE PARTITIONS

Double partitions, as their name implies. are composed of two separate layers of metal lath and plaster supported by double rows of 34" channels or prefabricated metal studs. No spacers or crossties which in any way connect the channels or studs on opposite sides of the partition are permissible. Each half of the partition should have 34" channels tied horizontally to the inside face of the vertical channels or studs. These horizontal stiffeners should be used every 4'. and at least two should be provided in partitions 91/2' high, or over. For maximum sound insulation, ceiling and floor runners should be insulated from concrete slabs.



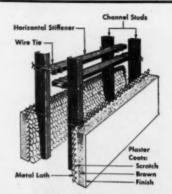
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Metal Lath and Plaster on Wood Studs

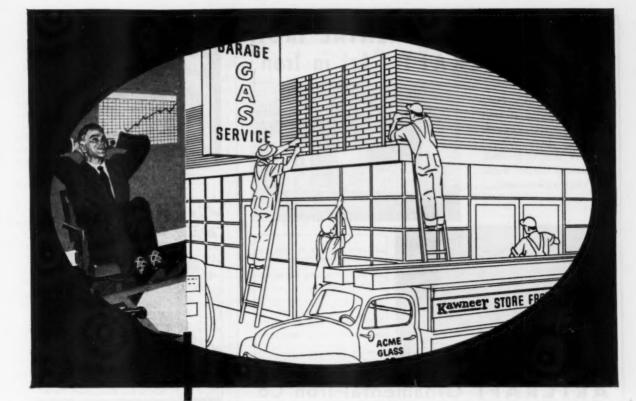






Metal Lath and Plaster Sound Insulating Double Partition

AMERICAN BUILDER



## Relax, Mr. Builder

## Give Kawneer Your Service Station, Garage Front Installation Problems

Store Front

If you, as a Builder-Contractor are erecting or remodeling service stations, garages and automotive showrooms, you can relax, and expedite building front construction problems by using Kawneer products and services.

Kawneer products, building front materials, doors and entrances, colored Zourite rust- and chip-resistant aluminum facing, and aluminum roll-type awnings are quickly and properly installed by Kawneer installing Dealers. Contractors who avail themselves

of Kawneer complete service also enjoy such benefits as:

> BEFORE; left. AFTER; above. Typ Kawneer Service St

 Assistance of factory-trained dealer personnel, representatives, mechanics.
 Ready bids for individual jobs through Kawneer national sales and dealer organizations. (3) Centralized warehousing and inventories—for quick delivery.

(4) Properly designed products adaptable to any kind of installation.

(5) Acceptability by architects and building owners.

(6) The broad Kawneer line of store front and entrance products which permit one source for the entire job.

(7) Specially trained Kawneer field installation supervisors who are available for consultation on large or difficult jobs.

You, as the contractor, will find a Kawneer installing dealer listed under "Store Fronts" in the classified pages of your telephone directory. Call him today, or write Kawneer, Niles, Mich.

Kawneer Garage-Dealer

Another Kawneer Service Station example

Kawneer helps showroom

SUPER-PAR



#### (Continued from page 334)

#### Ducts and Pipe

Ductwork, pipe, conduit, and tubing are considered more in detail in the sections on heating, plumbing, and wiring the house. Nearly all types of structural metals are involved at some point, and manufacturers are constantly working with heating, plumbing, and electrical contractors to develop better products to serve these needs.

#### Cornices, Edgings

Architectural extruded metals may be bronze, brass, aluminum, nickelsilver alloy, copper, or other special alloys. As extrusions are wrought under pressure, they are usually free from blowholes and other defects common to castings, and have a high tensile strength. Extruded shapes can thus be used with thinner crosssections, and finished with less labor.

Primarily, such shapes include opening frames, entablatures, cornices, bars, flutings, pilasters, caps, counter screens, hand rails, edgings and beadings of all kinds. Some manufacturers stock standard shapes for these purposes, and several will produce extrusions to the design of the architect on order.

## Proportioning Gutters, Leaders and Outlets

Two main factors govern roofing drainage problems: (1) The greatest amount of rain which the roof will be required to take care of at a given time. (2) The actual area of the roof that is being drained.

In residential construction where an infrequent overflowing of the drainage system will not seriously damage the building, a smaller rain intensity value may be used in determining the size of downspouts and gutters. In larger stone buildings it is best to use the greatest recorded rain intensity in figuring, since an overflow may cause serious damage.

The general rule to follow is 1" square downspout area for every 100 square feet to be drained.

#### Types of Metal Lath and Accessories

Metal lath is of three basic types: diamond mesh (also called flat-expanded), rib, and sheet, Diamond mesh is metal lath slit and expanded from metal sheets into such a form that there is no rib in the lath. Rib metal lath has either a separately attached stiffening member or an unexpanded portion which leaves the plane of the lath at an angle and returns at the same angle, imparting a certain rigidity. Sheet lath is simply slit or punched from metal sheets, usually galvanized.

Accessories used include a wide variety of small nose and bull-nose corner beads, base screed, concealed picture molding, and metal casing of various sorts. Special channels, hangers, and metal studs are properly considered as framing members rather than lathing accessories.

Through the years, many types of metal lath and plaster partitions have been developed to meet specific requirements. They can be described under three basic groups—hollow, solid and double partitions.

## SHEETS AND PANELS

Metal sheets and panels for use in flooring, ceiling, roofing, and siding applications, are considered at length in other sections of this issue. There are, however, a number of special types of sheets and panels which should be mentioned.

One manufacturer, for example, has devised an interlocking panel which forms floor, ceiling, and joists in one operation, also allowing space for large pipes and ducts, and providing convection surface to coordinate with radiant heating coils. The upper surface is prime painted, ready for flooring, and the lower surface may be ten exposed for beam ceiling or may be covered with wire lath and plaster as desired. The same panels may be used vertically for partitions.

A number of manufacturers produce steel deck plates, some of which are designed to use either in forming floors or as steel forms for laying concrete floor slab. Some are also built with special acoustical properties. These all-steel panels and members have the advantages of low initial cost, flexibility in handling, ease of installation, and strength.

Table	1-	Area	of	Standard	Size	Londers

Type	Ares in Sq. In.	Nominal Londor Sizes
	7.07	3"
Plain	12.57	4° 5°
Round	19.63	5.
-	28.27	0.
	5.94	3"
Corrugated	11.04	4"
Round	17.72	5"
	25.97	6"
	3.80	2" .
Square	7.73	3"
Corrugated	11.70	4"
	18.75	5"
	3.94	136" x 214"
	6.00	2" x 3"
Main	8.00	2" x 4"
Rectangular	12.00	3" x 4"
	20.00	4" x 5"
	24.00	4" × 6"

Courtesy Chase Brass & Copper Co.

Use this chart in selecting the proper size and shape of leaders in gutter and downspout installation.



The Nation's Best

IMPERIAL

A BUILDERS' ITEM that's a "must" wherever a house with a basement is built. Our heavy, galvanized corrugated steel window well wall has set

the pace in manufacture and betterment of product since first offered in 1938. The ONLY steel areawall COMPLETELY Hot-dipped galvanized AFTER forming. Will outlast the house.

TFEL AREAWALLS

Two types: The Streamlined Straight, especially advantageous where space adjoining the house is restricted. Round type, for installation wherever projection into yard is not a factor. Both types in complete range of sizes to fit all standard window openings.

Each unit (one-piece, no attachments) has Hug-Tite Flanges for tight fit to foundation wall. Top edge rolled on all sizes, important for strength and stability.

## EASY TO INSTALL

SPEED of installation saves time, labor, money. No painting needed. You install each unit just as delivered. Never any cracking or crumbling.



We PAY

the FREIGHT Anywhere

(12 units or more)

Free illustrated folder shows sizes, proper way to install, and much other helpful information. See your distributor, building materials dealer, or write us direct.

SAINT PAUL CORRUGATING CO. Expert Sheet Metal Manufacturers for 68 Years SOUTH END WABASHA BRIDGE \* SAINT PAUL 1, MINN.



Here's the sink frame that really clamps coverings into place to stay—seals out moisture—hugs the sink with a tight, permanent, fit. Coverings can't work loose or curl up!

Easier to install, too! Sink-Lok frames overlap edges of the covering a full quarter-inch. No close scribing, cutting or fitting of materials. No special tools needed. No mortising or rabbeting of the sink-well hole—just cut a straight-walled opening for the sink. The frame anchors in place from underneath the sink top —supports the sink itself in addition to sealing the joint between the covering and the sink. No bolts or screws through the counter top.

Sink-Lok Frames are available for flat-rim sinks of any size, with either round or square corners, for installation on wood or plywood sink-cabinet tops from  $\frac{5}{8}$ " to 1" thick, covered with any material up to  $\frac{1}{8}$ -inch thick. Also available for most vitreous china sinks.

Write for complete information.



No. A-725 Frame and Lug, for standard flatrim sinks installed on 5%" to 3/4" plywood tops covered with ma-

terial up to "/"". Also available in Model No. B-725 for "/"" to 1" plywood tops, and in Model No. C-726 for vitreous ching sinks.



AMERICAN BUILDER



STEEL access panel to provide access to drainage pipe in basementless building. Installed with metal wall around area of panel

## SPECIAL DOORS

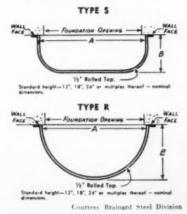
While most kinds of doors are discussed in full detail in the section on windows and doors, certain special purpose doors are normally manufactured as complete "package" units made of metal.

#### Access Doors

Access doors include roof hatches, ceiling hatches, floor hatches, and scuttles. Made of steel or aluminum, roof scuttles or hatches provide



CORRUGATED window well. Several manufacturers provide round, oblong, and square types



easily-installed, trouble-free access to the roof of the building. The only requirement is that a roof opening of the proper size be provided. The hatch is lined up over this opening and nailed or bolted to the rough roofing through holes provided in the flanges of the unit. They are watertight and fireproof and can be set up to lock from either inside or outside.

Heavy-duty compensating spring hinges are used in most types, and insulation is also built into the unit. Floor and ceiling hatches are made so that the door fits flush with floor or ceiling. Floor hatches in some instances have either smooth or patterned surface to prevent slipping.

#### Basement and Bulkhead Doors

Doors for use with either frame or masonry construction are available as package units which are attractive, designed for long life, and easy to install. Where the unit joins either frame or masonry, special flanges are provided to make a secure seal against rain and dirt.

#### Ashpit and Cleanout Doors

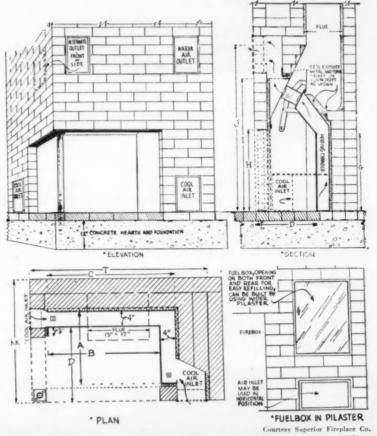
Installed in the bottom of chinney or stack for easy removal of soot and ashes, ashpit and cleanout doors in some instances are cast iron, but in most modern types are made of steel with welded parts and heavy-duty hinges to give long wear.

## FIREPLACE UNITS

Old-fashioned fireplaces wasted heat, smoked up rooms, and caused discomfort in various ways. For the builder who has a fireplace included in his plans, there are several fireplace heating units which are designed by engineers to provide added comfort and efficient fuel consumption.

While not recommended as a substitute for heating plants in northern climates, efficient fireplaces can save fuel bills by providing heat during many cool weather days. Units which circulate the heat to every part of the room or house through ducts are available in designs that permit their use with a wide range of ornamental fireplace types.

Firebox, throat, and flues are designed for correct operation, and dampers, down-draft shelves, and smoke domes are all built into correctly fabricated units.



Above detail plates show installation and design of corner fireplace which will heat all of small house with proper arrangement of warm air ducts.



## THE CITY GOES TO THE SUBURBS ....

... and particularly the department stores built of reinforced concrete. In addition to the beauty and flexibility of this type of construction, owners and operators find that fire insurance premiums and repairs are less and that the insulating properties of concrete reduce heating and air conditioning costs.

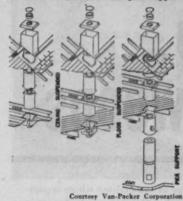
The trend in concrete construction is to reinforce

with welded wire fabric. For only fabric provides uniformly spaced steel members for proper load distribution and added strength. But be sure to specify your reinforcing fabric with the same care as you order your concrete mix. Specify Clinton Welded Wire Fabric. It meets all A.S.T.M. requirements and is available in proper sizes and weights for all reinforcing needs.

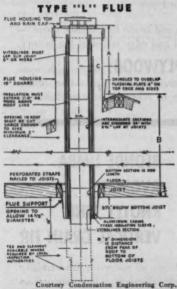
THE CALIFORNIA WIRE CLOTH CORPORATION, Onkiend THE COLORADO FUEL AND IRON CORPORATION, Denver, WICKWIRE SPENCER STEEL DIVISION, New York 22, N. Y.



PREFABRICATED CHIMNEY units can be used in place of lined brick construction. They can be suspended from the ceiling, the floor, or installed with pler support



To install complete chimacy (1) Nall chimacy support in place. (2) Set each section and cement with acid-proof cement provided. (3) Nall flashing to roof, slide housing over sections, and cement rain cap in place.



Courtery Condensation Engineering Corp. Detail plate showing installation data and necessary specifications for typical prefabricated metal flue.

#### SHUTTERS AND LOUVRES, JALOUSIES

Modern door construction frequently utilizes jalousies or louvres, the primary purpose of which is to provide adequate ventilation in rooms, corridors, and closets. While jalousies or louvres are available with wood or glass slats, and one manufacturer at least is making glass jalousiestyle windows, the greatest demand is for the metal jalousie unit for installation into doors. Made of furniture steel, aluminum, or other metals, and of almost any size, these units are shipped complete and ready for installation from several manufacturers.

#### ORNAMENTAL METAL WORK

Ornamental metal work includes ornamental castings, wrought iron pieces, gates, canopies, fences, railings, brackets, grilles, window bars, hand rails, trellises, lamps, ornamental stairs and doors, and posts. Perhaps the most common material is cast iron, although many pieces are now made of aluminum and bronze.

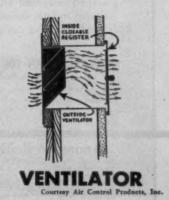


Courtesy J. W. Fiske Iron Works Ornamental iron adds distinctive note to entrance of this classic Southern home.

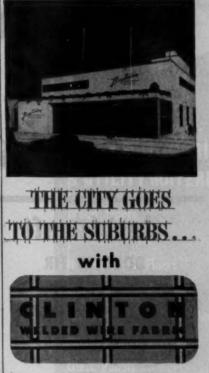


Install railing in three simple steps: (1) Build concrete forms to fit stock sizes of railing. (2) Set rail in forms, plumb and level. (3) Pour concrete.





Ventilator installation for use with glass block panels or fixed-in-place glazing, provides interior register to control ventilation.



As in suburban branch department stores and all types of commercial and residential concrete construction, Clinton Welded Wire Fabric is a favorite with builders everywhere. Here's why:

> Simple to Form and Shape. Clinton Welded Wire Fabric possesses the proper flexibility to make it easy to bend, form or shape right on the job. It is sufficiently rigid to hold its shape after forming.

> Easy to Handle and Place. Both the heavy and light gauges of Clinton Welded Wire Fabric flatten quickly and easily from the roll.

If you would like detailed information on Clinton Welded Wire Fabric and its many applications, write the office nearest you.

THE CALIFORNIA WIRE CLOTH CORPORATION, Oakland THE COLORADO FUEL AND IROW CORPORATION, Denver WICKWIRE SPENCER STEEL DIVISION, New York 22, N. T.



# **VARIETY TO SUIT EVERY** BUILDING NEED... Roddiscraft PLYWOODS

Roddiscraft DOUGLAS FIR



THE PLYWOOD "JACK OF ALL TRADES"



and SOFTWOODS



"THE ARISTOCRATS **OF MODERN PLYWOODS"** 



PLYPANEL: for a wide range of installations where appearance counts. When manufactured with waterproof glue it is known as PLYSHIELD and can be used for all exterior applications.

PLYSCORD SHEATHING: for walls, roofs, subflooring, Available in interior and exterior types.

PLYFORM: for constant use and re-use for concrete forms -sanded both sides - mill-oiled and edge sealed at the factory.

EXTERIOR GRADE FIR PLYWOOD: made with completely waterproof phenolic resin adhesives. For siding, liners, barns, silos, and a wide range of other exterior applications.

BIRCH	MAHOGANY	<b>BLONDE LIMBA</b>
MAPLE	PRIMA VERA	AVODIRE
OAK	WALNUT	KNOTTY PINE
GUM	CHEN CHEN	VERTICAL GRAIN FIR

These are top quality plywoods - all materials are carefully processed - bonded with the best adhesives in hot plate presses --sanded to satin smoothness---and carefully stored under proper conditions. You can sell Roddiscraft quality with confidence.

AVAILABLE WHEN YOU WANT IT: A nation-wide warehouse service makes delivery of Roddiscraft Plywood fast and reliable. For complete information - sizes, thickness - prices - and prompt service get in touch with your nearest Roddiscraft dealer.

## NATIONWIDE BRIDDISCHART WAREHOUSE SERVICE

Cambridge 39, Mass. Charlotte 6, N. C. Chicage 32,III. Claranati 4, Ohio. Cleveland 4, Ohio. Dallas 10, Texas. Detroit 14, Mich. .11 Housten 10, Texas Kansas City 3, Kan. Los Angeles 58, Calif., Louisville 10, Ky. San Leandro, Cal.

.720 Williams St.



A LL types of flooring materials fall under one of three general categories: wood floors, resilient floors, or non-resilient floors. The majority of wood floors are made from woods botanically classed as hardwoods. Several excellent flooring woods fall into the classification of softwoods, but are from the harder species. For reference purposes, composition flooring materials are considered resilient flooring while those floors composed of concrete and stone products make up the non-resilient category.

#### Flooring Types

Strip flooring consists of pieces, available in varying thicknesses, cut in narrow strips and of uniform widths. Pieces are tongued and grooved at the factory.

Parquet or pattern flooring consists of equal short lengths, generally governed by multiples of the width, which are installed in geometric patterns such as herringbone, squares, Courtesy Celotes Corp

and rectangles. A parquetry flooring is also available which consists of factory assembled blocks; sometimes referred to as block flooring.

Plank flooring consists of boards milled in random widths to produce the effect of early American heavy plank floors. Plank flooring is available with or without beveled edges; beveled edges being used when a more authentic early hand-hewn treatment is wanted. The Colonial wood peg fastening effect is simulated by wood plugs glued in holes on top of the counter sunk screws which fasten the planks.

#### Pre-Finished Hardwood Flooring

Some manufacturers produce flooring which is completely pre-finished at the factory. It is ready for use immediately after being laid. All species and types of hardwood flooring may not be readily available in this form; however, a producer equipped to



National Oak Flooring Manufacturers' Assn.

Subflooring is omitted in this method of installing strip oak floors in basementless homes built on concrete slabs. Flooring is nailed directly to screeds imbedded in mastic atop slab

## INTERIOR WALL, CEILING, FLOORING & UTILITY MATERIALS

Wood Floors **Resilient** Floors Non-Resilient Floors Linoleum and Rubber Coated and Uncoated Hardboard Plastic Surfaces Glass Panels Metal Tile Utility Surfaces Insulating Boards Gypsum Boards Ashestos-Cement Flat Boards Wallboard and Tile Acoustical Materials Mechanical Suspension Methods

Partition Systems

Installation Procedures

> FOR MORE INFORMATION ON PRODUCTS ADVERTISED AND DESCRIBED IN THIS CHAPTER PLEASE USE ONE OF THE PREPARED INQUIRY POSTCARDS IN THIS ISSUE.

This advertisement — reproduced in actual size with proper consumer copy — is just one of many selling aids furnished you by Tilemaster!

## the..

Now-TILEMASTER

America's finest plastic wall tile to promote, to install . . . for profit!

Meeting every consumer demand, you sell the best when you sell the profitable TILEMASTER line! Patented, Bev-All's more costly molds and careful engineering absolutely prevent "dishing."

Available in 30 rainbow colors for perfect flexibility of design and harmony. TILEMASTER colors are molded all the way through! 16 molded tile pieces permit "all-tile beauty" – eliminate any need for substitutions or bent tiles.

Write today for information on TILEMASTER – how it can serve you best . . . profitably!

## is the plastic answer to every wall tile demand!

EMAST

Preferred by tile installers!
Patented Bev-All's exclusive feature absolutely prevents "dishing"!
The only plastic tile with the "all-over" rounded contour!
Patented Mastic-Seal Rib seals mastic in — water out!
Corrugation on back permanently "locks" tile to wall!
30 permanent "decorator" colors of perfect uniformity!
Life-time, heavy-gauge Styron will not peel, chip or craze!
Meets (and exceeds) Bureau of Standards Specifications!
Manufactured by a foremost plastic tile manufacturer!
Plastic resilience withstands blows or sharp knocks!
Cleans so easily ..., stays "sparkle-bright!"
Each tile is a true square ... easy to "line up"!
Accepted and endorsed by architects!

reasons why

Assured consumer satisfaction!



Bev-Gle



A-1 PLASTIC MOLDERS, Inc.

1415-21 W. Diversey Parkway Chicago 14, Illinois

FOR YOUR PROJECTION This symbol assures you of honest tile.



F-BON

METAL

CORK

Super-Strength ADHESIVES special formula using true reclaimed rubber), Tuff-Bond super-strength adhesives are tenacious, flexible, waterproof, and assure extraordinarily strong bonds. They are very easy to apply... with trowel, bead or spot methods; shock-resistant; unaffected by climatic changes (will not freeze); exceptionally economical. Available in different types for specific uses, Tuff-Bond adhesives stick almost anything to anything! In 1/2 oz., 1 oz., 13/4 oz. and 4 oz. tubes; also 1/2 pints, pints, quarts, gallons and 5 gallon containers.

A few choice distributorships and dealerships are available. Write, wire or 'phone ...

**GOODLOE E. MOORE** INCORPORATED DANVILLE, ILLINOIS In Canada: W. D. ELMSLIE, Ltd. 409 Notre Dame St., West, Montreal 11, Quebec



## **BEAUTY** that Sells and Sells



Baths, kitchens, powder rooms of Vikon Metal Tile sell on sight! They're the center 'of attraction . in any of their 26 faderesistant decorator colors. gently rounded bevel, and sparkling glossy finish.

## 0 **ALITY** that Lasts and Lasts

These rugged squares of metal with a hard-baked finish possess rigid structural stability. They will not warp, chip, or craze. They resist heat, ordinary household chemicals, and abrasive action of repeated washings.



**ECONOMY** that Saves and Saves

"The Original Individual Metal Tile" Established 1926

You start saving the minute you specify Vikon! The initial price is low and installation is relatively simple. Light in weight, no extra supports are required. And Vikon Tiles can be bent, cut, lapped . . . with ease! Approved for government installations

VIKON	TILE COR	PORATION	1 2-1
WASHIN	GTON, N.	J.	
obligati Vikon '	on, the c	without omplete so ther with fu- tiple tiles.	tory of
Name			
Address			******
City	7.00	e State	

AMERICAN BUILDER

# YOUR BEST BUY IN BLOCK FLOORS

## READ THESE FACTS ABOUT POPULAR DELFAIR OAKBLOK

**DELFAIR Oakblok** offers to builders a truly distinctive floor, one that is equally suitable for small or large homes, commercial structures, housing projects, schools and institutions. It is epecially adaptable to economical installation over concrete.

**DELFAIR Ookblok** is available in all standard strip flooring grades and also in the following special grades: Prime, Standard and Better, Standard, Tavern and Better and Tavern.

**DELFAIR Oakblok** is made of either Red Oak or White Oak, and is available either unfinished or prefinished.

**DELFAIR Oakblok** comes in the following sizes: 25/32" x 63/4" x 63/4", 25/32" x 71/2" x 71/2", 25/32" x 9" x 9", 1/2" x 8" x 8" and  $\frac{1}{2}$ " x 10" x 10". All blocks are steel spline ioined.

DELFAIR Oakblok's milling characteristics: tongue and groove end-matched-slight vee-edge on prefinished blocks - cross-wise grooves spaced to insure better mastic adhesion.

**DELFAIR Oakblok** can be a money-maker for you in 1953. Write today for complete information.

D. L. FAIR LUMBER CO.

LOUISVILLE, MISSISSIPPI



\* Plank

- Prefinished Oakblok
- \* Square Edge Strip

MEMBER N.O.F.M.A.

APRIL 1953

## watch prospects nod approval when they see

## Designed by Decorating Experts to Combine Beauty with Utility

New micarta

## MICARTA is Easy to Work With Available in Economical Sizes

Easily installed MICARTA panels are available in four sizes to eliminate almost all waste. For your convenience, they are prebonded to  $\frac{3}{4}$ " Weldwood® Plywood; 24" x 96"...30" x 06"...30" x 06" x 30" x 06" x 30" x 96" all  $\frac{7}{8}$ " thick. Ask your lumber dealer about MICARTA. For more information, fill out and mail the coupon below.

•	•	•				•	•	•		•		•	•	•	•	•	•	•	•	•	•	•	•
ι	IN	IT	ED	15	ST.	AT	ES	I	L	YY	vo	00	D	C	OI	RP	0	A	TI	0	N		
5	5	W	es	8 4	14	th	SI		et	, 1	Ne	w	Y	0	rk	3	6,	N	. 1	٢.			

Please send color guidebook and full application information on MICARTA.

NAME			
Address		<u> </u>	
CITY	ZONE	_STATE	
			A8-4-53

Builders are becoming increasingly conscious of the *new importance* taken on by kitchens, breakfast bars, dinettes, and bathrooms. That's why they are seeking new, efficient, economical and convenient ways to impress new home prospects with these rooms.

New MICARTA<sup>®</sup> "Mardi Gras" adds a gay, colorful, festive spirit to whatever surface it covers. What's more, its beauty is protected for years and years against normal household abuse. Long after other surfacing materials have been replaced, MICARTA continues to resist scuffs, scratches, chipping, cracking and burning. In line with its bright, cheerful appearance, "MardiGras" leaves housewives carefree and workfree... with plenty of time to praise the intelligent longrange planning of their builders. J-06506"



AMERICAN BUILDER

354



Arden J. Millisor, V. P. of Martha Washington Builders, Inc., Columbus, Ohio. This firm concentrates its building in the Upper Arlington area of Columbus.

Leonard Smith, Columbus, Ohio, Tile Contractor.

## "We've been using Mosaic Clay Tile for years . . .

...won't use a substitute, says Arden J. Millisor, Columbus, Ohio builder.

"The goodwill of our long list of satisfied customers was built in part by the fine performance of this quality floor and wall material.

"We find that Mosaic Clay Tile is one of the few materials which takes year after year soaking from shower and tub and remains unharmed. That's why we use it in all our bathrooms, from the most moderately priced houses on up.

"Believe me, we had to spend many good dollars for repair and replacement before we used Mosaic Clay Tile exclusively. Now, you couldn't sell us anything else.

"I've used Mosaic Clay Tile in over 500 homes, since 1924. When anyone asks me what I think about tile, I give them one answer—'see our customers, they'll tell you all you want to know.' Here's what one of our home owners has to say about Mosaic Clay Tile . . ."

"I'm delighted with my tile bathroom," says Mrs. Ray H. Long of 1897 Elmwood Avenue, Columbus. "The time I save washing walls really streamlines my housework. And the smart decorator colors add smartness and character to my bathroom. I'm planning a new sinktop. It'll be Mosaic Tile, of course."



In the home of Mr. and Mrs. Ed. L. Van Cleef, 1842 Westwood Ave., Columbus, Mosaic Tile and All Tile Accessories make cleaning a no-time-at-all household task. The bright, cheery colors please everyone who sees them, and they'll never fade,



Give your customers Mosaic Clay Tile. Tile helps you sell your houses faster, makes your buyers happier.

See Mosaic Clay Tile today at your nearest Mosaic showroom, or at the showroom of your Tile Contractor. For tile-fact literature, write Department 35-9. The Mosaic Tile Company, Zanesville, Ohio.



MOSAIC TILE COMPANY

(Member—Tile Council of America) Offices, Showrooms and Warehouses across the nation. Over 4000 Tile Contractors to serve you

OFFICES:-Atlanta • Boston • Buffalo • Chicago • Denver • Detroit • Greensboro • Hartford • Hollywood Little Rock • Miami • Milwaukee • Minneapolis • New Orleans • New York • Philadelphia • Pittsburgh • Portland St. Louis • Salt Lake City • San Antonio • San Francisco • Seattle • Tampa • Washington, D. C. • Zanesville "Skateland," Trenton, N. J. Architects, Lewis and Kaplan.



## NORTHERN HARD MAPLE Humber Harris Helps you <u>SELL</u> the job so it <u>STAYS</u> sold!

All signs point to a year of commercial, small industrial and recreational building. For such jobs, no other floor (and certainly no mere floor covering!) matches the advantages of Northern Hard Maple. When an owner is reminded how much a welllaid Maple floor adds to the structural strength of his building... When he's reminded that the beautiful walking and working surface of his Maple floor will probably outlast the building... When you point out the extra saving of Second or Second-and-Better

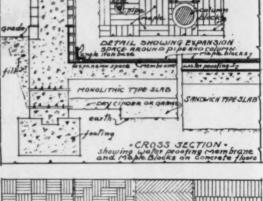


MFMA Northern Hard Maple—the handsome "character" grades—You'll sell many a fine job against *any* competition. And it'll *stay* sold!

MAPLE FLOORING MANUFACTURERS ASSOCIATION Suite 596, Pare Oil Building, 35 E. Wacker Drive CHICAGO 1, ILLINOIS

> SEND FOR THESE FREE PROFIT-BUILDING FOLDERS! They'll give you the powerful sales facts about America's finest hardwood flooring—MFMAgraded and warranted Northern Hard Maple.

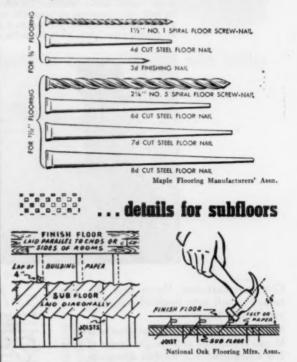
> > BEECH AND BIRCH



		,	
			I SQUARE PATTERN 2 RECTANGLE " 3 HERRINGBONE "
Ś	6-		S. EDGE GRAIN
			DATTERN 7 SINGLEMATTED SQ

## ... maple blocks laid in mastic

Suggested details and patterns for maple flooring blocks installed in asphalt mastic. Below: Flooring nails shown in approximately their actual size

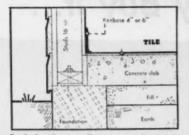


In conventional joist construction sound subflooring beneath finish floor is virtual "Must." Subfloor is ordinarily nailed directly to floor joists. Right: t&g flooring should be blind-nailed nails driven at about a 50-degree angle where tongue leaves shoulder. Head of each nail is countersunk

AMERICAN BUILDER

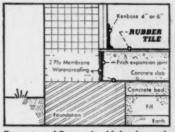
FLOOR

## ... applications of flooring tile

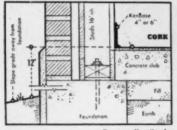


۰.

Asphalt tile installation can be made over any smooth. clean interior surface



Concrete subfloors should be bone dry before installing rubber tile. On new construction, concrete should be pretested for moisture



Courtesy Kentile, Inc.

Cork tile can be applied directly over smooth, firm floors of cement, steel, wellseasoned wood, clay tile or other hard surface

make factory finished flooring can usually furnish it in any species and type he ordinarily produces unfinished

#### Subfloor Requirements

Hardwood strip flooring should be laid on a soundly constructed subfloor. Subfloor boards should be between six and eight inches wide. Face nail them solidly at every bearing point with two or three 10-penny nails. All butt joints should rest on bearings. Use adequate nailing to avoid squeaky floors. Subfloors laid diagonally afford additional bracing strength for the building. Bracing strength will be further improved if diagonal direction is reversed on alternate floors. Before laying finish flooring, be sure subflooring is dry and clean, with all bits of plaster or other dirt scraped off.

Quicker, easier sales ... more satisfied customers . . . fewer call backs

... that's the beauty of

Higgins Block\*



There's one important feature of Higgins Block that doesn't show in spec sheets . . . and that's the rich, lustrous, sales-producing look of quality!

#### \* SPECIFICATIONS:

- 9" x 9" net face hardwood blockseasy to install
- 3-ply cross-grain construction when properly installed will not warp, buckle, cup or crack
- Selected oak face ready finished

- Toxic impregnated rot-proof, and termite-proof
- Grooved back anchors into adhesive quiet and comfortable
- Can be laid without special prepara-tion on concrete slab—ideal for radiant heat Blocks fit flush-without large, visible
- Pressure bonded with marine-type glue - water-proof, climate-proof
- iggin BONDED HARDWOOD BLOCK FLOORING THE WORLD-FAMOUS BOAT BUILDERS Use this coupon for free sample block and literature Higgins, Inc., Dept. A-4 New Orleans, La.

Gentlemen: Please send sample block and literature to:
Firm Name
Address
CityZone

V-grooves

357

# When they eye it... they buy it...



BUYERS LIKE THESE ARE ALREADY



A motel in Massachusetts used 14,000 feel of WadgeWood to create interiors of beauty. Customers who see it want to know where they can bay it!



An appliance showroom used Wodge-Wood for a dramatic background to set off their merchandise. Customers who see al want to know where they can have it!



A business expanization used Wedge-Weed for a brilliantly essected reception room. Custemers who see it want to know where they can buy it!



When Architects see WedgeWood they see IDEAS. When Builders see WedgeWood they see SALES. When prospects see WedgeWood they BUY.

So see YOUR Georgia-Pacific Representative today.

WEDGEWOOD

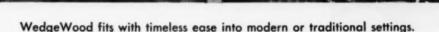
Georgia-Pacific's new low-cost textured plywood with the look of luxury . . . the touch of drama that

## **SELLS ON SIGHT!**

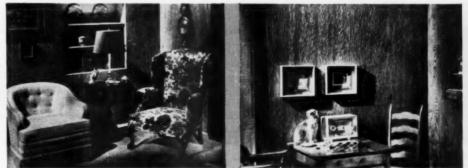
1 au

WedgeWood creates new beauty ... new texture ... new design ... for your homes that spells *SELL* in any kind of styling. Excitingly effective in full room treatment ... dramatic when used occasionally ... WedgeWood has created new buyer interest, appreciation and *desire* wherever it has been used. With WedgeWood all the elegance and charm of fine wood paneling is yours at low, low cost.

Surround your prospects with the beauty that adds to the market value of your homes.



WedgeWood puts new "buy appeal" into den or dining room, lounge or living room . . .





# GEORGIA - PACIFIC ----

Dept. D., 617 North Capitol Way, Olympia, Wash.

OFFICES OR WAREHOUSES IN: Augusta, Baltimore, Birmingham, Boston, Chicago, Cleveland, Columbia, Detroit, Fort Worth, Lancaster, Los Angeles, Louisville, Memphis, Nashville, Newark, New Castle, New Hyde Park, New Orleans, Olympia, Orlando, Philadelphia, Pittsburgh, Providence, Raleigh, Richmond, Salinas, Savannah, Seattle, Spokane, Vineland, Waltham.

# **KENTILE**.

# ... the Asphalt Tile of

Kentile is subjected to many critical tests to insure top-quality asphalt tile:



This amazing new electronic Color-Eye neasures the shade of each Kentile color o protect uniformity.



he wear resistance of Kentile is conrolled by frequent tests under the articial "foot" of this Taber Abraser.



his research chemist is examining a centile sample under a binocular microcope, checking surface smoothness.

**TODAY'S KENTILE** is a far cry from the "original" asphalt tile...many times superior in beauty and durability. Quality Control in all phases of manufacture insures a product as perfect as modern methods can make.

**KENTILE FLOORS** are long-lasting floors. The rugged, fire-resistant surface resists dirt, stain and wear...cleans and stays clean with only mild soap and water...gleams like new with just an occasional no-rub waxing.

## Specifications and Technical Data

#### INSTALLATION

Can be installed over any smooth, firm interior surface that is free from spring. oil, grease, lumps or foreign matter: metal-wood -plywood-concrete-radiant heated concrete slabs-concrete in direct contact with the earth, on or below grade.

#### INSTALLED PRICES

Prices given here are for a minimum area of 1,000 sq. ft. over concrete underfloor. Installed prices range from approximately 20¢ per sq. ft. for ½" Group "A" (darker colors) to 40¢ per sq. ft. for 3/16" Group "D" (lightest marbleized colors). (Installed prices vary according to the size of the installation and condition of the underfloor.)

#### THICKNESSES

Standard Kentile is available in two thicknesses:  $\frac{1}{16}$ " for most residential and commercial uses...3/16" for industrial uses and wherever extra-heavy duty is expected.

#### SIZES

Standard tile size is 9" x 9".

**SPECIAL KENTILE** is a greaseproof asphalt tile flooring with extreme resistance to petroleum and cooking greases and oils, alcohols, alkalis and most acid solutions. It can be installed wherever Kentile can be installed...is available in a wide range of marbleized colors... ½" and 3/16" thickness. Installed prices range from approximately 40¢ to 50¢ per sq. ft.

The **KENTILE** Flooring Contractor is a trained and experienced expert . . . fully qualified to aid you in choosing the proper floor for every residential, commercial and industrial installation. Call on him whenever you wish as you would a paid member of your staff. KENTILE, INC., 58 Second Ave., Brooklyn 15, New York
350 Fifth Ave., New York 1, N. Y. • 705 Architects Bldg.,
17th and Sansom Sts., Philadelphia 3, Pa. • 1211 NBC Bldg.,
Cleveland 14, Ohio • 900 Peachtree St. N.E., Atlanta 5, Ga.
2020 Walnut St., Kansas City 8, Missouri • 4532 South
Kolin Ave., Chicago 32, Illinois • 4501 Santa Fe Ave., Los
Angeles 58, Calif. • 452 Statler Bldg., Boston 16, Mass.



Copyright 1953, Kentile, Inc.



# Enduring Beauty

Original design in low-cost Kentile...exclusive ThemeTile and Kensert inserts...add to the beauty and appeal of any store, shop or office...lasts for years of hardest service. Kentile colors shown are Grand Antique and Grammont.



Nationally-advertised Kentile Floors increase the value and acceptance of every home...Colors shown are Genoa Green with Toledo Red Border plus ThemeTile and Yellow Feature Strip.

The rich, modern beauty of durable Kentile Floors is easi and economically maintained...Kentile colors shown an Lamartine and Veined Carnelian with a Sailfish Kenser



KENTILE, INC., Makers of: KENTILE ASPHALT TILE SPECIAL (greaseproof) KENT KENCORK FLOORS and W KENRUBBER TILE FLOOR KENFLEX VINYL TILE

# Choose the floor that's NATURALLY beautiful! BRUCE STRIP Hardwood Floor

#### Prefinished for economy and durability

Owners get the biggest value in hardwood floors when you specify *Prefinished* Bruce Strip Floors.

The charm and natural beauty of this modern oak floor is preserved by the factory-applied finish. Tests prove it outwears surface finishes 3 to 1 and home owners find these prefinished floors far easier to keep clean and beautiful.

The cost of a *Prefinished* Bruce Strip Floor is usually less than for an unfinished floor of the same grade after you add the expense of on-thejob finishing. There's also a time saving of 3 to 5 days per house. Write us for complete information. See our section in Sweet's File.



E. L. BRUCE CO., MEMPHIS 1, TENN.

Hedrich-Blessing Photo

#### Strip Floor Application

When possible lay strip floors lengthwise of the building. When applying over old finish floors, apply at right angles with the old floors. Thresholds are omitted in the modern home. Flooring should run continuously through doorways. Care should be exercised to stagger end joints to avoid grouping them closely together.

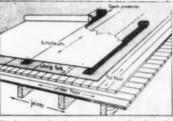
#### **Resilient Floors**

Resilient Floors. The major types of resilient floors are asphalt tile, cork, linoleum, rubber, and felt base with baked enamel surface. The use of a felt underlayment between the subfloor and resilient floor material is optional if the subfloor is of plywood or hardboard. In every other case, however, a felt underlayment is recommended if the long life and full benefit is to be expected of the resilient flooring. Subflooring must always be reasonably smooth and solid.

Resilient flooring should never be installed on wet or damp subfloors or on wood floors in contact with the ground. For full satisfaction it is recommended that at least 18 inches of air space and free circulation exist between subfloor and earth. Asphalt tile may be installed on concrete which is in contact with the ground if the concrete is fully treated with sealer. In every case, a dry condition must exist on the surface receiving the resilient flooring and underlayment.

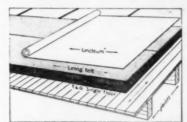
Flooring in Rolls. Cut resilient flooring to fit accurately at all points with a minimum of cross seams. A thin, even coat of paste is spread on the floor and the covering is pressed into place. Then roll well with a roller to remove air pockets and insure adhesion. Except for pattern goods, all resilient flooring should be overlapped slightly at the seams and cut through both thicknesses to insure a tight finished seam joint. Pattern goods must be carefully butted without further cutting to retain symmetry of design.

Tile Flooring. Determine the exact center of the area to be covered with tile flooring. Do this as shown in diagram shown elsewhere in these pages. Starting at the center line, spread adhesive in a thin even coat with a notched trowel. Cover enough area for several tiles and apply at once. Start laying tiles from the center point and work toward the walls so that last tile is set on perim-

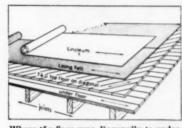


If laying linoleum across floorboards would involve wasteful cutting, follow direction of boards and seam protector

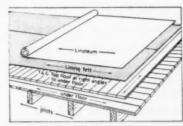
### .. how to lay linoleum



Single tog floors should be covered with either 1/e-inch hardboard or 5-ply plywood; and linoleum and lining felt laid across beards.



Where t&g floor runs diagonally to underfloor, linoleum and lining felt should be laid at 45-degree angle with top floor



For best results if the top floor runs at right angles to underfloor. linoleum and lining felt should be laid across floor boards

eter or border of the room. Cut and fit tiles carefully around all projections and fixtures. When laying tiles, butt firmly against each other but do not slide into position as this may force adhesive up between the seam joints. Borders should follow the line of permanent fixtures and border width can be varied to accommodate any dimensional variations.



## ...new, remodeling jobs with tile

Remodeling job over old plaster wall (above). New construction below. Completed work must be free of broken, damaged, cracked or otherwise faulty tiles



Minnesota Mining & Mfg. Co.

... structural glass bathroom walls



Attractive bathroom wall installation is made with structural-type glass. Material has good resistance to moisture and

stains

## ... typical tile

## houses move faster with floors of WRIGHT RUBBER TILE



Floors of Wright Rubber Tile instantly indicate to the prospective buyer that you have put quality first. It gives him confidence in whatever you may tell him about the rest of the house . . . help you clinch the sale.

Features that show are features that sell. You install the latest cabinets, dishwashers and electric refrigerators . . . Don't spoil the effect with a drab unexciting floor. Go modern all the way with floors of Wright Rubber Tile. The customer will be impressed very favorably.

Tell the prospect . . . about the 100 year life of a Wright Rubber Tile floor . . . that no floor requires less maintenance . . . Explain to him that over the years Wright Rubber Tile floors will save him money by needing no replacement.

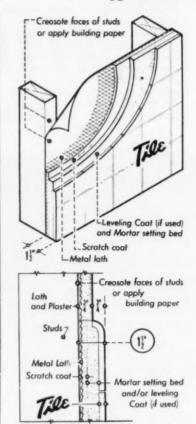
Just try one house! Put in one of these gleaming floors in the next house you build for sale. Then watch how much more quickly your prospect becomes a buyer.

Wright Manufacturing Co. 5203 Post Oak Rd., Houston 5, Texas



FLOORS OF DISTINCTION

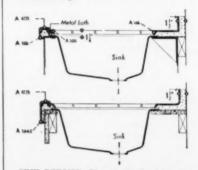
WRIGHTFLOR-Hard Surface Rubber Tile
 WRIGHT-ON-TOP Compression Cove Base



VERTICAL SURFACES. Wood members to receive metal lath and scratch work for clay tile are protected from dampness by building paper, creosote or asphalt paint. It scratch coat is applied with care, mortar setting bed will provide suitable surface and "leveling" coat may be omitted. Either floating or buttering method may be used in setting tile

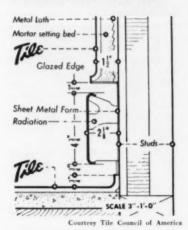


Tiles may have either square or cushion edges. Cushion type has slight curvature at facial edge



SINK DETAILS. Glazed tile for lavatory counters. drainboards, etc., should be scratch and stain resistant

## construction details



BASEBOARD RADIATION. Installation of a baseboard convective-radiant unit

# ... estimating tile requirements

Table of Approximate Percentages of

	Allo	wable	Wa	ste	fo	н	١	10	ri	ou	is A	reas		
Up	to	50	sq.	ft							14	5%		
50	tu	100	sq.	ft							10	5%		
100	to	200	sq.	ft							7	1ºc	to	9%
200	to	300										Se	to	7%
300	to	1.000										50	to	6%
		5,000												
		10,000											to	4%
10,000														

80.	9"x9"	12"x12"	6"x6"	9"x18"
FEET	No. of Tile	No. of Tile	No. of Tile	No. of Tile
1	2	1	4	1
2	4	2	8	2
3	6	3	12	3
4	8	4	16	4
5	9	5	20	5
6	11	6	24	6
7	13	7	28	7
8	15	8	32	8
9	16	9	36	8
10	18	10	40	9
20	36	20	\$80	18
30	54	30	120	27
40	72	40	160	36
50	89	50	200	45
60	107	60	240	54
70	125	70	280	63
80	143	80	320	72
90	160	90	360	80
100	178	100	400	90
200	356	200	800	178
300	534	300	1200	267
400	712	400	1600	356
500	890	500	2000	445

To find the number of tile needed for an area not shown on chart, such as the number needed for \$5 square feet, add the number for \$0 square feet to the number for 5 square feet



Easiest to install Quality Plastic Surface



## Now you can install **PANELYTE** On - the - Job

## PANELYTE

FOR SINK-TOPS

### is also your answer to Shop Fabricated Jobs

**R**EGULAR Panelyte (1/16" thick) for bonding to plywood, is ideal for jobs fabricated in the shop. This durable, beautiful plastic for table-tops and work-surfaces has proved its dependability in homes, hotels, stores, restaurants and institutions for many years. It is the same fine laminate as 1/10" Panelyte, except in thickness. Complete range of colors and effects.

> PANELYTE The Decorative Surface

> > Panelyte is made by St. Regis Paper Company

famous for paper and plastic products of highest quality.

**NO COSTLY DELAYS.** Your men can install the new, heavier Panelyte—or local sub-contractors can easily handle the job. Composed of laminated plastic throughout its 1/10" thickness, this new form of Panelyte is beautiful and durable!

Installation is easy and quick, using metal moldings and ordinary hand tools. Large sizes, to 4' x 10', for fewer joints and more one-piece surfaces. And you'll have mighty attractive results to show—beautiful surfaces that will last a lifetime.

Panelyte in both thicknesses is available through dealers. Ask your dealer today or send coupon for complete information.

Panelyte Divisi ST. REGIS P	AP		-	-							1			
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Panelyte deal				co	m	pl	e	e	i	nf	0	rn	nc	3
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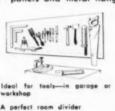


## decorative, functional, versatile!



"PEG-BOARD" presents a brand new concept in wall paneling—a combination of perforated hardboard matched with over 60 hanging fixtures (magazine racks, towel bars, shelf brackets, hooks, etc.) all instantly interchangeable without screws, nails or tools of any kind. Take a new look at those plans you're working on now you'll find dozens of places to save space and add beauty and efficiency with "PEG-BOARD" panels and metal hangers.





Gives new utility to

closet space



See our catalog in Sweet's Light Construction File Section 4-E

**BUILDERS: WRITE TODAY** for complete descriptive literature, sample kit and prices.

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#### UTILITY SURFACES

Surface materials are produced by the manufacturer with four major factors in mind: (1) durability. (2) ease of maintenance. (3) decorative qualities, and (4) easy application. A combination of several surface materials may often be used in the same installation with good results. Materials impervious to water are a necessity around tubs, showers and lavatories. Materials of a softer texture may be preferred for the rest of the wall surface.

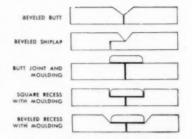
Both beauty and practical usage must be considered when selecting materials for surfacing sink, counter and work table tops in the kitchen.

plastic for lavatory

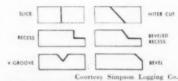
Mirror - Metal Moulding

Courtesy General Electric Co.

# ... treatments for insulating board



Joint treatments of wood fiber insulating building board used as interior finish



Cuts obtainable with special cutting and beveling tools

## all-plastic panel installations



Courtesy St. Regis Paper Co. One all-plastic panel is set in place with cutout area for fixtures. Workman nails corner moulding to studding to provide firm anchorage. No backing or insulative material is used

## ... hardboard plank wall installation



Plank is 16 inches wide to cover one stud space. has 16g joint for concealed fastening. Scoring is to resemble 6 and 10-inch alternating planks. Application here is a basement amusement room



National Plastic Products Co. Staples are used here for fastening at studs. There are several factory finishes for the product



## Marlite's ideal for remodeling any room in any building

Here are only a few of the many different types of interiors which can be remodeled faster, more economically with beautiful Marlite plastic-finished wall and ceiling panels. In the home, business, factory, and institution, Marlite is easily installed over old or new walls. The soil-proof finish slashes dollars off maintenance costs . . . eliminates painting.

New Wood and Marble patterns, plus a complete range of striking colors, provide a versatile selection for any interior in new construction or remodeling. See genuine Marlite at your lumber and building materials dealer, or write for full-color architect and builder catalog. Marsh Wall Products, Inc., Dept. 403 Dover, Ohio. Subsidiary of Masonite Corporation.

THE MARLITE NAME ON THE BACK OF EVERY PANEL IS YOUR GUARANTEE OF SATISFACTION.



## **Grading of Hardwood Floors**

The principal American producers of hardwood strip flooring have, through two major trade associations, adopted uniform grading rules and regulations for commercial practice. Approved by the Bureau of Standards of the U.S. Department of Commerce, these rules and regulations are enforced rigidly, in part by the organizations themselves. As a result dealers and consumers are assured of high standard merchandise and the industry is protected against sharp practices. The two organizations are the National Oak Flooring Manufacturers' Association, with headquarters at Memphis, Tenn., and the Maple Flooring Manufacturers' Association, Oshkosh, Wis.

Every bundle of flooring produced by a member of either association is identified as to grade, and is guaranteed to meet all established specifications. Often the manufacturer's name and a mill mark of identification are stated on each bundle.

There are no official grading rules for plank, parquet and block flooring, but generally the different grades correspond to those of strip flooring.

Hardwood flooring grades are based principally on appearance. All regular grades possess adequate strength, durability and resistance to wear, hence these qualities are not factors. Chiefly considered are such imperfections as knots, streaks, pin worm holes and in some cases sap-

#### How to Estimate the Amount of Hardwood Flooring Required for a Given Space

#### **Strip Flooring**

To determine the board feet of flooring needed to cover a given space, first find the area in square feet, then add to it the percentage of that figure which applies to the size flooring to be used, as indicated below:

50% for	12"
37 1/2% for	
331/3% for25/32"x21	4"
24% for	4"
331/3% for 3/8"x1!	12"
25% for 3/8"x2"	
331/3% for 1/2"x1!	12"
25% for	

The above figures are based on laying flooring straight across the room. Where there are bay windows or other projections, allowance should be made for additional flooring. It is always well to order 5% additional flooring to take care of floor layers' cutting and possible damage.

#### **Block and Plank Flooring**

These are sold on the basis of floor coverage. It is necessary to provide only an additional 5% to floor area to compensate for floor layers' waste and possible damage.

#### **Rules Governing Re-Inspection**

In the manufacture and grading of oak flooring the very best types of machinery, equipment and workmen are employed, but occasionally some pieces get into wrong grades by error.

Therefore, if the re-inspection results in a difference in favor of the purchaser of more than five (5) per cent in feet, as shown in the invoice, then the shipper will be considered as being in the wrong and shall issue a corrected invoice in accordance with the re-inspection, and pay all the expenses of the re-inspection.

If on the other hand, the difference is only five (5) per cent or less in feet, then the party making the complaint shall not be entitled to any reduction from the invoice and shall furthermore, be charged with all the expenses of the re-inspection. wood and variations in color. Imperfections in processing also are factors.

OAK — In Clear Grade Oak the amount of sapwood is limited. Otherwise, variations in color are disregarded in grading. Red and White Oak ordinarily are separated, but that does not affect their grading. In most cases the average length of strip flooring pieces is greater in the higher grades. Oak is classified into three grades of quarter-sawed stock and four of plain-sawed. In descending order the quarter-sawed grades are: Clear. Sap Clear and Select. Plain-sawed grades are: Clear. Select. No. 1 Common and No. 2 Common. (See Table below).

MAPLE, BEECH, BIRCH — Rules governing the grading of Maple. Beech and Birch are virtually identical for all three species. Neither sapwood nor varying natural color is considered a defect in standard grades. These species are produced in three standard grades — First, Second and Third, with First being the highest. Each also is available in a special grade selected for uniformity of color.

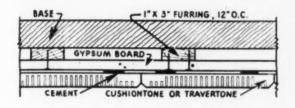
PECAN — Pecan is processed in seven standard grades, two of which specify all heartwood, and one bright sapwood. Otherwise color variation is not considered.

"Nominal" is not always the hardwood floo size. "Actual" excluding tono	D SIZES, CO the size designation actual size. Some ring is 1/32-inch le 'is the mill size rue width. "Count ment. Pieces less be 1 inch.	n used by the t etimes the actua iss than the so- for thickness an ed." size determine	rade, but it is al thickness of called nominal id face width, ines the board
	OAI		
Nominal	Actual	Counted	Weights M Ft.
	ED AND GROO		1
$^{25}/_{22} \times 31/_6$ im. $^{25}/_{22} \times 21/_6$ in. $^{25}/_{22} \times 21/_2$ in. $^{25}/_{22} \times 11/_2$ in. $^{3}/_9 \times 2$ in. $^{3}/_9 \times 11/_2$ in. $^{1}/_2 \times 2$ im. $^{1}/_2 \times 11/_2$ in.	$\frac{32}{12} \times \frac{31}{4}$ in. $\frac{32}{12} \times \frac{21}{4}$ in. $\frac{32}{12} \times \frac{21}{4}$ in. $\frac{12}{12} \times \frac{21}{13}$ in. $\frac{11}{12} \times \frac{21}{13}$ in. $\frac{12}{12} \times \frac{21}{13}$ in. $\frac{12}{12} \times \frac{21}{13}$ in. $\frac{12}{12} \times \frac{21}{13}$ in.	$1 \times 4  \text{in.} \\ 1 \times 3  \text{in.} \\ 1 \times 2^{3/4}  \text{in.} \\ 1 \times 2^{3/4}  \text{in.} \\ 1 \times 2^{1/2}  \text{in.} \\ 1 \times 2  \text{in.} \end{cases}$	2250 lbs. 2000 lbs. 2000 lbs. 2000 lbs. 1000 lbs. 1000 lbs. 1300 lbs.
	SQUARE	EDGE	
<sup>3</sup> / <sub>16</sub> x 2 in. <sup>3</sup> / <sub>16</sub> x 11/ <sub>2</sub> in.	1200 lbs. 1200 lbs.		
BEECH, B	IRCH, HARD	MAPLE AN	D PECAN
Nominal	Actual	Counted	Weights M Ft.
TONGL	ED AND GROO	OVED-END MA	TCHED
$\frac{13}{12} \times \frac{31}{4}$ in. $\frac{13}{12} \times \frac{21}{4}$ in. $\frac{13}{13} \times \frac{2}{10}$ in. $\frac{13}{12} \times \frac{11}{2}$ in. $\frac{3}{12} \times \frac{11}{2}$ in. $\frac{1}{2} \times \frac{11}{2}$ in. $\frac{1}{2} \times \frac{11}{2}$ in.	$\frac{25}{12} \times \frac{31}{4}$ in. $\frac{25}{12} \times \frac{21}{4}$ in. $\frac{25}{12} \times \frac{21}{4}$ in. $\frac{25}{12} \times \frac{21}{4}$ in. $\frac{11}{12} \times \frac{21}{4}$ in. $\frac{11}{12} \times \frac{11}{2}$ in. $\frac{12}{12} \times \frac{11}{2}$ in. $\frac{12}{12} \times \frac{11}{2}$ in.	$1 \times 4  \text{in.} \\ 1 \times 3  \text{in.} \\ 1 \times 2^{3/4}  \text{in.} \\ 1 \times 2^{1/4}  \text{in.} \\ 1 \times 2^{1/2}  \text{in.} \\ 1 \times 2^{1/2}  \text{in.} \\ 1 \times 2^{1/2}  \text{in.} \\ 1 \times 2  \text{in.} \\ 1 \times 2  \text{in.} \end{cases}$	2250 lbs. 2000 lbs. 2000 lbs. 2000 lbs. 1000 lbs. 1000 lbs. 1300 lbs. 1300 lbs.
SPECIAL	THICKNESSES	T and G, End	Matched)
<sup>17</sup> / <sub>16</sub> x 3 <sup>1</sup> / <sub>6</sub> in. <sup>17</sup> / <sub>16</sub> x 2 <sup>1</sup> / <sub>6</sub> in. <sup>15</sup> / <sub>16</sub> x 2 in.	<sup>33</sup> / <sub>32</sub> x 3 <sup>1</sup> / <sub>4</sub> in. <sup>33</sup> / <sub>22</sub> x 2 <sup>1</sup> / <sub>4</sub> in. <sup>33</sup> / <sub>22</sub> x 2 in.	<sup>5</sup> / <sub>6</sub> x 4 in. <sup>5</sup> / <sub>6</sub> x 3 in. <sup>5</sup> / <sub>6</sub> x 2 <sup>3</sup> / <sub>6</sub> in.	2400 lbs. 2250 lbs. 2250 lbs.
INIOL	ED FLOORING-	-i.e., SQUAR	EDGE
$\frac{23}{32} \times \frac{21}{2}$ in. $\frac{23}{32} \times \frac{31}{4}$ in. $\frac{12}{16} \times \frac{21}{2}$ in. $\frac{12}{16} \times \frac{31}{2}$ in.	<sup>25</sup> / <sub>22</sub> x 21/ <sub>2</sub> in. <sup>25</sup> / <sub>22</sub> x 31/ <sub>4</sub> in. <sup>25</sup> / <sub>22</sub> x 21/ <sub>2</sub> in. <sup>35</sup> / <sub>22</sub> x 31/ <sub>3</sub> in.	$1 \times 3\frac{1}{4}$ in. $1 \times 4$ in. $\frac{5}{4} \times 3\frac{1}{4}$ in. $\frac{5}{4} \times 4\frac{1}{4}$ in.	2250 lbs. 2400 lbs. 2500 lbs. 2600 lbs.
pieces from 6 bundle. No The perce on this page the item. <sup>2</sup> / <sub>6</sub> -fn. all measuring th Flooring	ak, Beech, Birch, B by averaging the l in under to 6 in, piece shorter than intages under 4 ft. apply on total is owance shall be a e length of each shall not be consid om which the floo- dried.	over the nomine 9 in. admitted referred to in th hotage in any o idded to the fac piece. dered of standar	ai length of the e grading rules ne shipment of te length when ad grade unless

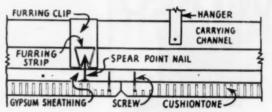
The quality and condition of the oak flooring when it leaves the manufacturer is held to govern the re-inspection.

AMERICAN BUILDER

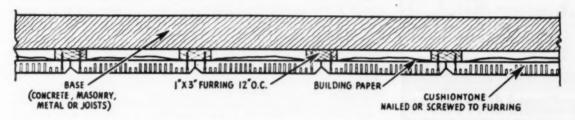
**CEILING TILE BOARD INSTALLATION DETAIL** 



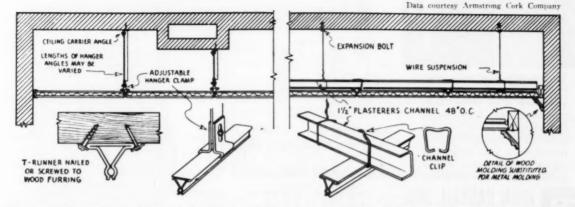
**Cement application over furring.** When the base surface (masonry, rough plaster, rough concrete, or open joists) does not provide a satisfactory base for cement application, a recommended method is to install 1x3-inch cross furring, 12 inches on center and cover with gypsum board or lath. This provides a sound base for cementing.



**Mechanical installation of acoustical tile.** There are several mechanical suspension systems which can be used for application of acoustical tile. The diagram above shows one recommended method. Metal carrying channels and furring strips support a surface of gypsum sheathing. Ceiling tile is screwed to this surface.



Application of acoustical tile to wood furring by nails or screws. By the use of cross furring 12 inches on center, acoustical tile may be applied by nailing or screwing, in spite of an unsatisfactory base surface. When this method is used it is important to cover the furring with a layer of building paper to prevent "breathing" at the joints.



**Mechanical suspension of ceiling tile.** The metal **T**runners, to which the ceiling tile metal pans are clamped, may be nailed or screwed directly to wood, or suspended from metal hanger angles, as shown above at left. Another method, shown at right, calls for wire suspension of channels, to which T-runners are clipped 24 inches o.c.

APRIL 1953

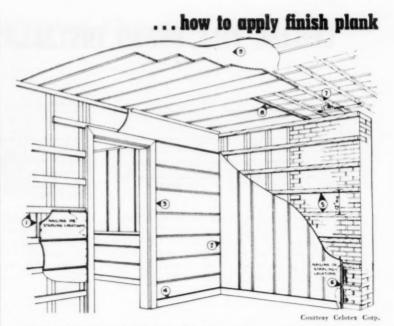
367



For installing asbestos cementtype wallboard use Hassall wallboard drive screws. Specifically designed with spiral threading for better holding power. Supplied with nickelplated finish with either casing or button heads. Advise guantities. Prompt delivery.

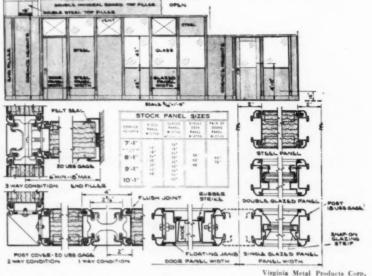


JOHN HASSALL, INC. 190 Clay Street Brooklyn 22, N. Y. Established 1850



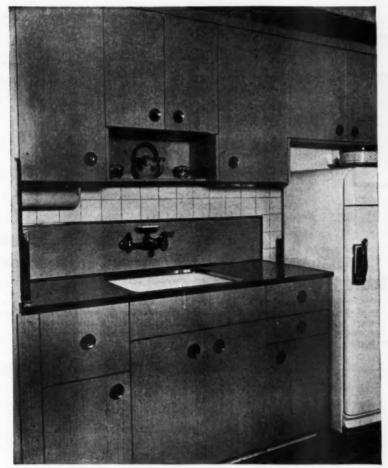
(1) Horizontal application: Nail horizontal furring strips to wall framing or anchor strips securely to masonry walls. For wall areas longer than 12 feet, install vertical furring strips as nailing bases for butt ends of units. (2) Begin in corner of room, face nailing at wall and ceiling junctures. Cover exposed nailheads later with moulding. (3) In existing construction, but plank against door or window trim or replace trim after application. In new construction apply trim over plank along edges of openings. (4) Horizontal application should begin at base of wall with tongues up. Nail or staple to furring strips 12 inches O.C. (5) Vertical application: Space horizontal furring strips as shown. (6) Apply vertical plank with tongue edge leading. Nail or staple to each strip. (7) Ceiling application: cross-fur joists with wood strips 12 inches O.C. Nail or staple units to strips. Face nail centers of 16-inch plank or apply heavy adhesive at intermediate furring strip locations. (8) Butt-end joints must center on furring strips and should be covered with building board strips, moldings or beveled to form a V-groove joint. Ends of plank should be face nailed to furring strips. (9) Apply plank to gypsum wallboard or plaster that is sound, reasonably level, and dry, using heavy adhesive and supplementary nailing, spacing nails 16 inches O.C.

## ... movable steel office walls



virginia Metal Products Cor

Movable office partitions offer easy adaptability to changing needs in small commercial and industrial buildings through interchangeable panels, doors and other fixtures, and simplified installation



a NEVAMAR<sup>®</sup> kitchen adds lasting value to any home . . .

## Ready-to-install NEVAMAR Units Are Now Available For New Building or Remodeling



specifications.

With NEVAMAR, the pre-finished surfacing material, you can add greater value to the home you build or the kitchen that you remodel. Use NEVAMAR to surface your cabinets and sink tops or you can obtain readybuilt units for quick, easy installation.\* A NEVAMAR-surfaced kitchen is designed for a lifetime of service and satisfaction. This super-hard laminate never needs painting or re-finishing. It shrugs off scars, stains, scratches . . . even cigarette burns! It is available in a wide range of colors and patterns, including the currently popular wood grains. Write today for samples and complete information.

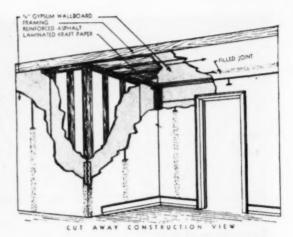
\* We'll be glad to put you in touch with manufacturers of NEVAMAR-surfaced cabinets.

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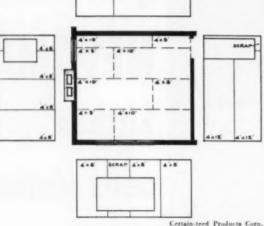
Manufacturers of Nevamar High-Pressure Laminates • SARAN FILAMENTS • Wynene Molded Products ODENTON, MARYLAND • NEW YORK: EMPIRE STATE BUILDING • LOS ANGELES: 5025 HAMPTON STREET

APRIL 1953



## ... laminated gypsum drywall construction

This patented system consists basically of applying two layers of gypsum wallboard to the studding in place of lath and plaster. First layer is nailed directly to studding. Second layer is glued and nailed on top of first in way that joints do not coincide. Walls are finished by filling all joints. System may be used in any wall or ceiling construction which requires decoration



4' 14 1.00

4' 10 1

\$

-

## ... gypsum wallboard layout

Layout for walls and ceiling of bedroom, using %-inch gypsum wallboard. For lowest cost and maximum use of sheet material, board should be carefully laid out, in standard lengths. This will reduce joints and help workmen get best results. Foil-back board may be used for insulation and vapor barrier

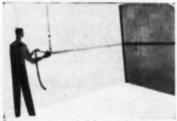
# gypsum wallboard



First step: Nailing the %-inch panels to stude and joists



Then second or face-ply is cemented to first layer with laminating adhesive



Joints are concealed by reinforcing tape and cement which also feathers out at edges



Courtesy Gypsum Assn

Before applying wallboard, check these framing details: (1) Straight studs. (2) Uniformly dimensioned lumber, to insure flush nailing surfaces. (3) Outer faces of all bridging, fire stops and headers should be flush with nailing face of studs. (4) Nailing faces should be flush and in true alignment with plate faces, top and bottom. (5) All electrical outlets, heating ducts, etc., should be positioned for flush alignment with finished surface. (6) Nailing surfaces should be provided on both sides of vertical corners

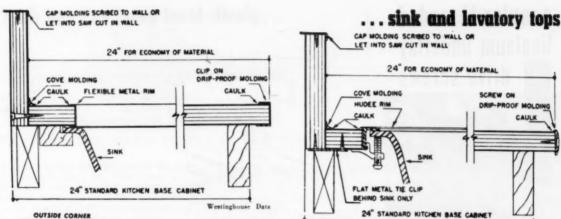
#### CLAY TILE

Clay tile is made from clay and/or other ceramic materials formed to thickness and shape and baked to produce a durable material. The two general types are "glazed" and "unglazed." Either may be used for wall finish but for most domestic installations the glazed finish is preferred. The glaze may either be clear or opaque. Almost any color or combination of colors is available, in a veined, mottled or rippled effect.

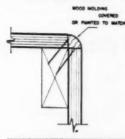
#### LINOLEUM AND RUBBER

Linoleum and rubber types of wall coverings are available in rolls or cut tiles in varying sizes. Thicknesses, tile sizes and roll widths vary with the manufacturers.

Linoleum or rubber materials may be applied directly to any smooth surface, above grade, provided no seepage occurs on the base surface. This includes such surfaces as one- or two-coat plaster, hardboard, plywood, gypsum lath or dry concrete walls. It is well to note that if the surfaces to be covered are not smooth and level the glossy surface of the material will cause highlighting at random which will result in a warped and wavy appearance of the wall or surface. All unevenness is accentuated after the surface material has been applied.

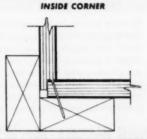


OUTSIDE CORNER WITH



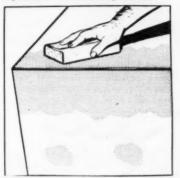
Flush mounting of laminated plastic is usually preferred whereever sink size is standard. Recessed rims give greater flexibility, since they can be formed to fit sinks of unusual size or shape, but are more difficult to apply. Caulking material must be used under all metal moldings in either case

Left: Simplest method of building outside corner is to use an applied molding. Molding may be covered with plastic sheeting or painted. Right: Simple inside corner construction. Corner moldings of veneer-on-metal or plastic-covered wood moldings may be used





Before decorating gypsum wallboard. be sure finish-cement over joints has been feathered out smoothly. Conceal nailhead depressions with finishing cement



Showing difference in texture between feathered out joint and field of wall board. Joint is usually glossler; primer equalizes difference in texture

APRIL 1953

## ... getting ready to decorate



Joints, treated nailhead depressions and other surface irregularities should be lightly sanded to insure smooth receiving wall

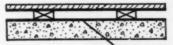


To obtain full, uniform coat, sizer should be brushed on with semi-circular stroke. Primer and/or sealer give bonding surface for paint

## ... applications of premolded membrane



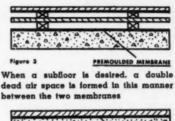
PREMOULDED MEMBRANE figure t In this application, membrane functions as both vapor pressure shield and capillary membrane. Treated sleepers are embedded in concrete



PREMOULDED MEMBRANE

Here static sleepers are bonded to membrane with mastic. Where perimeter insulation is desirable, it can be set between sleepers and box-framed at ends

Figure 2



PREMOULDED MEMBRANE Figure 4

Courtesy W. R. Meadows, Inc. In this installation a single layer of premoulded membrane is cemented to the slab to serve as waterproofing membrane and flooring underlay

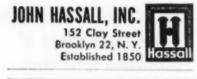
#### 371

## annular-threaded linoleum underlay

drive screws



To make your linoleum underlays hold tightly and lie flat permanently, secure them with Hassall annular-threaded linoleum underlay drive screws. They are cement-coated for maximum aripping power. Heads are flat countersunk type. Size: 11/4" x #3 gauge. State quantity when writing for prices to:





0 GYP "C" JACK Eliminates back-

Insures truer alienment and neater finished job.

Gives workmen comalete control during installation.

#### GYP "C" JACKS ARE SAVING BACKS

Builders have found that workmen can install ceiling panels all day long and not become exhausted

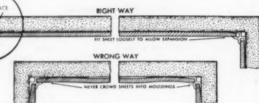
and workmen do a faster, neater, more satis-factory job with the new GYP "C" JACK. The new GYP "C" JACK consists of three parts . a 21 by 21 inch . . . with creeper have easters . a top spring steel spider arm for hold

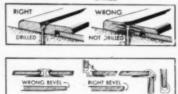


Write for folder describing complete line

GYPSUM CEILING JACK COMPANY 112 22nd STREET N.E. CEDAR RAPIDS, IOWA



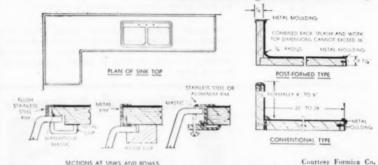




Marsh Wall Products.

In cutting (top), allow for variation between inside and outside corners. Never attempt to force sheets into place or butt tightly against corners or into any type moulding. Left: Drill half way through moulding with bit slightly larger than head of 5d finishing nail. Bevel backedge of sheet slightly to permit panel to move freely into mouldings

## ... laminated plastic sink top



SECTIONS AT SINKS AND BOWLS Typical sink top installation with laminated plastic. Material has great durability and is easily cleaned

> starting ceiling tile application

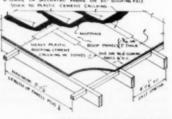


Left: First fiber tile is applied to starter strip. Entire first row should be applied across ceiling before second row is installed on opposite side of strip. Second row (above) takes shape opposite starter COUTER



## ... panel roof deck

Exposed joists of panel roof decking provide attractive ceiling for living room. Below: Application details for flat or pitched panel roof deck. Panels may be used as a base for built-up roofing



AMERICAN BUILDER



Mr. L. L. Darley, builder of the new "Young America" House and other fine homes at Knollwood Acres, Mount Carmel, Connecticut.

#### "THERE ARE SO MANY PLACES IN A HOME WHERE YOU CAN USE

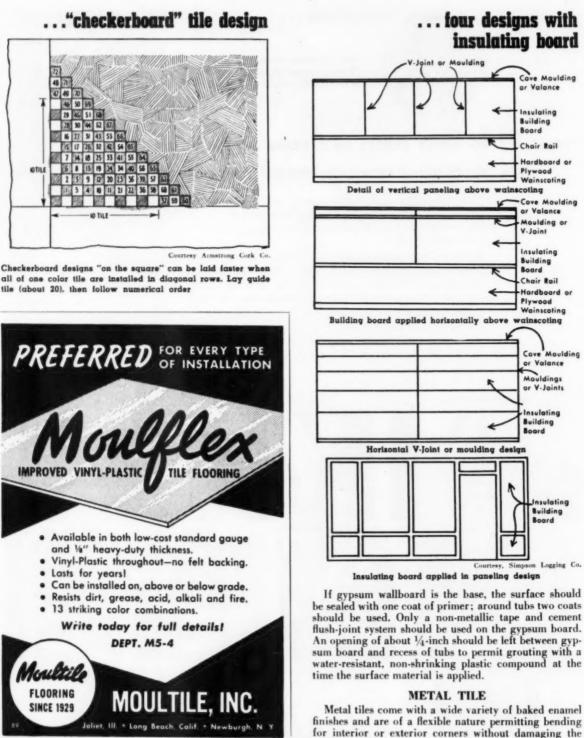
#### G-E TEXTOLITE" PLASTICS SURFACING TO ADD BEAUTY AND UTILITY"

"When I first began using G-E Textolite, I concentrated mostly on tops for kitchen sinks and cabinets. But I quickly found out that there are dozens of other places around the house where you can take advantage of its beauty and extreme durability."

Mr. Darley has been building fine homes for many years, and knows how highly home buyers value quality and good looks. That's why he uses G-E Textolite surfacing for kitchen sinks and counters, fine bathroom vanities, wall cabinets, tables-and for so many other places around the homes he builds.

See for yourself the beauty of the new G-E Textolite patterns, including distinctive G-E designs and nine new wood-grains. A copy of the new full-color pattern booklet is ready for you. See your nearest G-E Textolite distributor or write: General Electric Company, Chemical Division, Section 321-3B, Pittsfield, Mass. •Reg. U.S. Pat. Off.







AMERICAN BUILDER



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finish. Solid colors, mottled and hammered effects, make available a wide variety of color combinations. Base material of tile may be stainless steel, steel or aluminum. Metal tile installation follows the method outlined for other tiles. They may be applied to almost any solid, clean, level surface.

A special wall tile of porcelain fused on 20-gauge steel is installed by cementing tiles to special foundation board  $\frac{1}{2}$ -inch thick and scored in  $\frac{1}{2}$ -inch squares, which align the tiles perfectly and speed installation.

#### COATED AND UNCOATED HARDBOARD

Wall-size panels with a hardboard base and factory finished by a coating, baked on, in a variety of colors, are applied in the same manner as unfinished hardboard. See the section on "Plywoods and Hardboards" for basic properties and details on how to handle, cut and fabricate hardboard panels.

Hardboard is also available uncoated for interior wall treatment. Two patterns are available—leather and tilescored.

Factory-finished panels with hardboard base are usually  $\frac{4}{32}$ -inch thick. Allowances should be made in construction for this thickness. Standard sizes are usually 4-foot widths and lengths of 4, 6 and 8 feet. Smaller widths are available.

#### **GLASS PANELS**

Recommended thicknesses of glass panels for bathroom and kitchen wall treatment are  $\frac{14}{2}$  and  $\frac{1}{6}$  inches. Weight is approximately  $\frac{41}{2}$  pounds per square foot of  $\frac{14}{2}$ -inch thickness. Glass panels may be installed over any hard, firm wall surface which is of true plane, plumb and straight. A bond coat should be painted on the wall surface to get good mastic adhesion. An allowance of  $\frac{3}{6}$ -inch should be allowed for setting behind the glass panel. Mastic is applied in gobs on the reverse side of the panel. Five gobs would be about right for an 8 by 12-inch plate. Sufficient mastic should be used to insure that at least 50 per cent of the total area of the glass panel is bonded to the backing.

#### PLASTIC SURFACES

Plastic surface panels or tiles for wall treatment consist of laminated plastic material bonded to composition building boards and installed either directly to studding or solid walls in the same manner as plywood panel installation. Standard thickness is,  $\frac{4}{32}$ -inch. Panel sizes vary greatly with manufacturer, starting at about 24-inch widths. Solid walls should be prepared plane-level and panels may be bonded to walls by the use of adhesive cements. Receptable-type mouldings should be used on wall treatment installations of plastic finished panels.

#### INSULATING BOARD

Decorative insulating boards include sheets, plank and tile boards which are well standardized. Sheets are made in standard 4-foot widths, 8, 10, and 12 feet long. Plank is manufactured in 8, 10, 12, and 16-inch widths and lengths of 8, 10, and 12 feet. Tile is generally made in 12 by 12, 12 by 24, 16 by 16 and 16 by 32 inch sizes. They are prefinished in a variety of plain and colored surfaces and are as adaptable for remodeling and redecoration as for new construction.

#### **GYPSUM BOARD**

There are three thicknesses of gypsum wallboard— $\frac{1}{4}$ ,  $\frac{3}{8}$ , and  $\frac{1}{2}$  inch. The length varies from 4 to 12 feet. The  $\frac{1}{4}$ -inch board is made with square edges only. It is a lower-priced product designed to serve specific purposes, such as (1) temporary repairs and alteration work; (2) as a covering over old wall surfaces, and (3) for ceiling repairs where light weight is needed.

The 3%-inch standard gypsum board and 1/2-inch wall board is available with square, beveled and recessed edges.

375

Insulating gypsum wallboard is made with all types of edges and thicknesses. Aluminum foil is firmly attached to the back surface of this board to provide reflective insulation and act as a vapor barrier.

Gypsum tile board is made in  $\frac{3}{4}$ -inch thickness only, and from 6 to 10foot lengths. These boards have a square edge and an ivory surface but with tile indentations  $4\frac{1}{2}$  inches square.

Wood-grained gypsum board is made in 3%-inch thickness and from 6 to 12-foot lengths. Edges are square or beveled. A paper having a photographic reproduction of knotty pine, bleached or ribbon mahogany, walnut, or figured aspen is used.

#### Preparing the Framework

Gypsum wallboard, like any other wall or ceiling finish, requires level and true framework. The wood supports should be properly spaced and leveled in a workmanlike manner. Faces of studs should be lined up with the face of plates at top and bottom. Studs and joists should not exceed 16 inches on centers, except that their spacing may be increased to 24 inches when 1/2-inch wallboard is used. Substantial nailing surfaces should be supplied at all interior and exterior corners so that the ends of boards forming the corners may be securely nailed.

#### ASBESTOS-CEMENT FLAT BOARDS

An attractive stone gray in color, asbestos boards are hard and smooth on one side and slightly textured on the other. They are a practical material for structural wallboard use and are highly serviceable for exterior surfaces as well as interior walls.

Made in sheets 1/8 to 3/6-inches thick, four feet wide and eight feet long, the boards are light enough to be handled easily. Nailing is the usual method of application, although they can be put on with a special adhesive, supplemented by nails, mouldings or other overlapping devices. As an alternate to nails, wood screws may be used.

#### WALLBOARD AND TILE

Wallboard and ceiling tile made of layers of wood or fiber or paper bonded with resins are available. Wallboard panels are waterproofed and measure up to 8 feet wide and 18 feet long. Panels 3%-inch thick with pebbled surface are ideal for either painting or papering.

Dry-built, full-wall construction is economical with the use of these laminated fiber panels, waterproofed and with strong insulation value. The wall panels come in standard sizes 4 feet wide by 6, 8, 10, 12 and 16 feet long, and full-wall sizes 8 feet by 12. 14, 16, and 18 feet long. Surfaces are presized to provide a perfect painting surface. Ceiling tiles of similar material are cut to 12-inch squares, with edges moderately beveled. Manufacturers claim they are so completely waterproofed that they can withstand even unusual moisture conditions. Their natural finish is decorative, washable, and will take oil-base paints.

#### Decorative Wallboards

Also available are 7-ply laminated fiber panels in striated design, guaranteed to be permanently crackproof and possessing effective insulating qualities. They are compressed to 1/4inch thickness, and are available in sizes 4 by 8 feet or on special order in larger sizes. They are applied directly to studs with the same type of fasteners previously mentioned. For baths and kitchens a pre-finished fiber board is available in giant size panels 8 feet wide by 12 feet long, as well as standard 4 by 8-foot size with the glossy tile-like surface embossed in various colors in squares.

#### Decorative Tile and Tileboard

Decorative tileboard is used almost exclusively on ceilings. These boards have interlocking tongue-and-groove joints with extra-wide nailing flange so that adjoining units fit together firmly and smoothly, and allow concealed fastening. They can be applied with stapling gun, without use of special clips. Many attractive patterns may be worked out with ceiling tile. used with or without color variations and combinations. Intricate patterns. however, require extra care in installation. They start from the center of the ceiling, and care must be taken to insure adequate furring where tiles of varying sizes and shapes are used.

#### ACOUSTICAL MATERIALS

Perforated acoustical fiberboard tile are particularly desirable because of their comparatively low cost and case of maintenance. Most are factory painted and require no finishing treatment on the job but may be painted without losing acoustical qualities. The beveled units may be cemented to plaster, concrete, plasterboard ceilings, or mechanically fastened to wood furring or directly to plasterboard. The manufacturer provides a special self-clinching nail for attaching directly to plasterboard.

#### Glass Fiber Tile

Acoustical boards and tile made of glass fiber are well suited to suspended ceiling constructions because of their low weight and dimensionally stable characteristics. Standard acoustical adhesives may be used. However, they are not recommended for use on surfaces which are subject to frequent condensation or under conditions where the tiles will remain wet, as water-staining may result.

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#### Mineral Fiber Tile

Another type of acoustical tile is made from mineral fibers. It is designed in both a marble pattern and etched surface. The various methods of installation with adhesives, mechanical erection, or nailing direct to wood strips according to manufacturers' specific recommendations all have advantages depending upon the specific type of construction, but adhesive application is the most widely used method and is recommended where a suitable base exists.

#### MECHANICAL SUSPENSION METHODS

Cold-rolled, 16-gauge steel channels are wired in some installations to furring channels for suspended ceilings or fastened directly to ceiling or wall construction for directly applied acoustical finish. Channels are set at approximately the center line of the ceiling tiles, eliminating the lining-up with the joints. Combina-tion "clip-snap-on" metal acoustical wall trim composed of extruded aluminum or rolled 22-gauge galvanized iron is angle punched to receive the clips which not only hold the tile in place but also receive the finished trim after the job is completed. After the ceiling is laid, cove molding is snapped into place, using the clips already set to hold the tile.

#### PARTITION SYSTEMS

Of particular interest to the builder who has occasion to erect small offices or light commercial and industrial structures, office partition systems are available in various combinations of wood and steel, pre-finished boards, insulating boards and other combination materials.

#### Steel and Glass Panels

Several types of steel and glass panels are available, most of which offer interchangeable panel and door sections, universal doors, reversible hardware, identical fittings between panels and linking panels to posts, and other conveniences of erection.



Pittsburgh Plate Glass Phote

Versatility of glass as a building material has given impetus to the development of a modern style of architecture distinctly in step with the times, with entire walls of glass. Unlike single window units, these consist of multiple windows banked in a group. In homes now being built, from six to twelve such units go into one wall, usually the focal wall of the living room. Luxury ranch type home above utilizes Twindow double-glazed units

#### **TYPES OF GLASS**

There are many types of flat glass available to the builder today which were unheard of 30 years ago. In addition to the centuries-old spun glass or crown glass and blown glass, there are heavy drawn and fluted drawn sheet glass, polished plate, rough plate, rolled sheet, fluted rolled, rough cast, figure rolled, tempered plate, opal and colored opal, safety glass, pressed glass, ultra-violet glass, heatresisting glass, and a host of others including corrugated, glass block, and architectural glass.

#### Sheet Glass

Sheet glass used for windows is commonly single strength. The safe glazing size must always be considered so that the glazed area will have sufficient strength to withstand wind stresses. The table below summarizes this information and indicates some of the basic sizes of window glass available.

Weight per sq. ft.	Thick- ness	Manu- factured Sizes	Safe Glazing Size
15 oz. 21 oz.	225" 1"	60 x 40" 81 x 42" or	24 x 24"
26 oz.	16"	68 x 50" 81 x 45" or	30 x 30"
32 oz.	1/25"	70 x 51" 74 x 39" or	35 x 35"
		58 x 50"	40 x 40"

Sheet glass is made in various qualities: "firsts" for cabinet work; "seconds" for picture framing and glazing; "thirds" for houses, schools, and offices; "fourths" for general glazing; and "horticultural" for greenhouses. Heavy drawn sheet glass is used as a substitute for plate in cheaper construction.

#### Plate Glass

Plate glass contains more lime and less soda and magnesia than sheet glass, and is made by the semi-continuous method of rolling, while sheet glass is made by the fully continuous method of drawing. Prior to 1923 plate glass was made by pouring molten glass onto a casting table. Plate glass is ground and polished. which may remove as much as half of its original thickness, leaving a smooth, glossy, and optically true glass, structurally sound and highly attractive. Thicknesses range from 1/4 inch to 11/2 inches and sheet sizes are available up to 127 by 286 inches.

Heat-absorbing plate glass excludes much of the heat in the sun's rays while transmitting most of the light. It is especially useful in industry where it is desirable to reduce interior temperatures which would otherwise be raised by the sun's heat. Exclusion of this solar heat means substantial savings of cooling costs in air-conditioned buildings. Such glass may be plain, corrugated, or wire-meshed.

#### **Tempered Plate Glass**

Tempered plate glass is made by re-heating a piece of plate glass and then rapidly cooling the surface with air jets. This sets up a system of balanced stresses and strains in the material which makes it many times as strong as ordinary plate glass. It cannot be cut once it has cooled, for this would shatter the balance of strain and stress and reduce the whole piece to fragments. Consequently, it must be cast to exact size before it is tempered.

Widely used in modern store fronts and entrances, as well as in display cases and some shower stalls, tem-

## GLASS GLASS BLOCK GLAZING & CAULKING

Types of Glass

Sheet glass Plate glass Heavy plate Heat absorbing Tempered plate glass Patterned glass Double and triple glazing Structural Corrugated Colored Architectural glass Glass block Mirrors

Plastic-Glass Products

Glazing and Caulking

Putty Caulking compounds

Installation Procedures

Detail Plates For Basic Structures

> FOR MORE INFORMATION ON PRODUCTS ADVERTISED AND DESCRIBED IN THIS CHAPTER PLEASE USE ONE OF THE PREPARED INQUIRY POSTCARDS IN THIS ISSUE.

# Pittsburgh Glass helps you get sales instead of "stalls"



CARRARA GLASS on bathroom and kitchen walls stamps a home as having exceptional value. Builders everywhere have found that Carrara is an important factor in turning casual "lookers" into buyers. For it is recognized nationally as a high quality wall material. Its rich beauty and polished surface appeal to everyone. So does its permanence—the fact that it doesn't check, craze, or fade with age. Being glass, people know it's extremely easy to keep clean. And there are ten attractive colors to choose from. For tub recesses and stove backings, large Carrara Panels give the advanteges of this structural gless at small cost.

1200 5

Every nickel you spend on glass shows. And the results always far outweigh the cost.

WINDOW WALLS are a much-wanted feature in the modern home. In many cases, too, they reduce building costs. When these walls are glazed with Solex-Twindow, unmatched comfort and greater enjoyment of the outdoors from within the home are offered the buyer. These units are made up of two panes of glass (see cutaway below). The outer pane is greentint Solex, the inner is clear Plate Glass. Between them is a sealed-in air space. Thus, you combine the heat-absorbing, sun-glare-reducing properties of Solex, with the high insulating value of Twindow-"the window with built-in insulation." Handling and installation are safe, easy and quick, thanks to the stainless steel frame around the entire unit. Archi-tect: Carl A. Strauss, Cincinnati, Ohio.



AMERICAN BUILDER

WALL MIRRORS of Pittsburgh Plate Glass, like the one in this living room, have immediate appeal for the pres-pective home buyer. When you in-stall wall mirrors in new homes—or include them in your renovating work—you make your selling jeb much easier. That's because these mirrors give a room a smarter, more sparkling and luxurious look. Besides, they can actually make a small room look larger—increase its apparent length or width. To cut on-the-leb costs and simplify installation, Pittsburgh Mirror Brackets come packed with each custom-made mirror you order. Your local Pittsburgh branch or glass distributor can give you all the facts on these cost-saving brackets. Why not ask him?

# Build it better with Pittsburgh Glass

See Sweet's Builders Catalog for detailed information on Pittsburgh Plate Glass Company products. PAINTS . GLASS . CHEMICALS . BRUSHES . PLASTICS . FIBER GLASS

PITTSBURGH GLASS COMPANY PLAT Ε

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

# EyesRight SELLS ON SIGHT

Structural Corrugated glass installation at main entrance of L. M. residence in Seattle, Washington. Architect, Gerhard E. Korpius, New York City.

### The Distinctive, Modern Look of Structural Corrugated Glass Catches Homes Buyers' Eyes Everywhere

A simple, effective partition of Structural Corrugated Glass by Mississippi has changed this from just another doorway into a grand entrance...it has created something unusual and desirable. And this is what today's home buyer wants. Something modern ... something practical ... something beautiful.

Structural Corrugated glass floods areas with softened, "borrowed light" that flatters interiors . . . makes rooms appear larger. It creates an air of distinction and luxury impossible to attain with any old-fashioned material.

Glass is the modern material . . . easy to install and maintain. And translucent, figured glass has tested sales appeal, it eyes right and sells on sight.

Give your homes that "different look" that buyers want. See your regular glass distributor or supplier for Mississippi Glass. Many patterns and surface finishes to choose from.

Write today for free booklets, "Modernize Your Nome With Decorative Glass" and "Figured Glass by Mississippi." Photographs of actual residential and commercial installations, Many ideas on ways to use this new medium,







BE ANGELICA ST. SAINT LOUIS 7, MO. NEW YORK + CHICAGO + PULLERTON, CALIF.

WORLD'S LARGEST MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS



# double glazing installation



First step is to check window against size of window opening. Opening should be <sup>1</sup>/<sub>4</sub> of window opening. Opening should be <sup>1</sup>/<sub>4</sub>" larger on all sides than the double glazed unit



Next, use a good glazing compound, adequately worked. Never use putty, as it hardens, and unit no longer "floats" in the opening. Use elastic glazing compound.

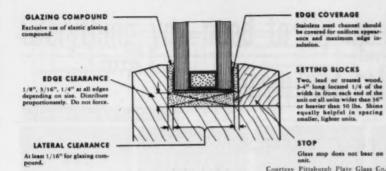


Third, place wood setting blocks: 1/4" thick, 1" wide and 3" long in position shown. For 36" sash, setting blocks are in 9" from each end.



Pittsburgh Plate Glass Photo

Starting along side jamb of wood frame, apply glazing compound to the back or permanent glazing stop. Surround setting blocks but keep block tops clean.



pered plate glass is available in a wide range of colors, and may also be colored on one side for use in signs and lighted displays.

#### Patterned and Diffusing Glass

The use of obscure glass to prevent vision while admitting light is not new, but in recent years manufacturers of glass have come up with a wide range of attractive designs worked into the surface of both sheet and plate glass, either by pressing, etching, or

### alass panels installed around bathtub



place roll of mastic around rim for waterproofing. Also, butter studs with mastic before setting glass panels.



Set the plate at the back of the tub first. Then merely nail through plasterboard flanges and use special clips supplied.



or treates

Glass stop does not bear on

STOR

sandblasting. The size of the individual pane of glass and the amount of

vibration which it will receive from

walking or street traffic will govern

the thickness of the glass to be used.

If protection against breakage and fire, as well as privacy, are desired, a

figured wire glass may be installed.

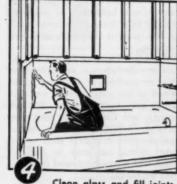
Glare reduction and heat reduction are also built into various types of

obscure glass for industrial and com-

mercial purposes.

ll units wider than 36" er than 50 lbs. Shims helpful in spacing

Do the same thing with the end panels. Let plasterboard extend beyond tub to next stud. If wainscot is 48" high, follow same sequence in setting second course.



Clean glass and fill joints carefully with the pointing compound supplied. This assures a thorough waterproofing installation.

Courtesy Pittsburgh Plate Glass Co.





homes...for skylights, window walls, patio roofs, awnings, shower stalls, etc. Ideal indoors and out.



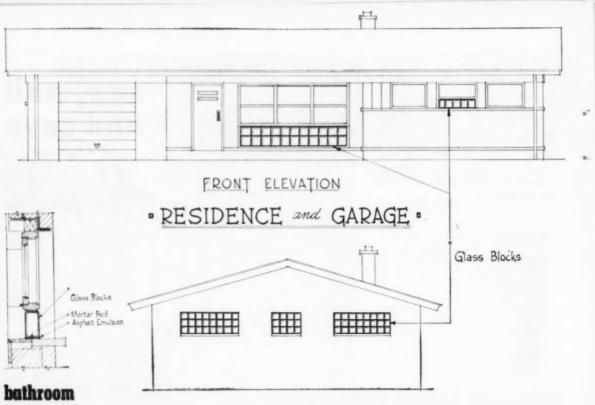
commercial ... for store fronts, office partitions, luminous ceilings, decorative effects, signs.



industrial...for unlimited daylighting .skylights, side walls, etc. No framing needed.

#### ALSYNITE COMPANY OF AMERICA Dept. AB-2, 4670 DeSote St., Sen Diego 9, Calif. Please send me complete information on Alsynite and name of nearest distributor. Name Company Address. City State Plants in California and Ohio Distributors in Principal Cities

381



## window

#### **Double Glazing**

Few modern homes are being built today without at least one large double-glazed picture window. A double-glazed unit is composed of two lights of glass held in place with a metallic spacer and rubber bond, making an hermetically sealed air space. In some instances, windows may be similarly triple glazed, and a few cases have had as many as five lights of glass separated by sealed air spaces.

Double-glazed units are available in approximately 50 standard sizes ranging from 35½ by 36 inches to 72 by 96 inches. When needed, special sizes may be obtained. Installation can best be accomplished by following closely manufacturer's instructions, which include roughly the following data:

- (1) Openings must be square, free of twists or glazing obstructions. Units should not be set in poorly constructed frames. inadequate to bear the weight of the sash (6 lbs. per sq. ft.), nor be of unseasoned lumber which might warp.
- (2) Sash must literally float in the opening.
- (3) Use of elastic glazing compound is recommended. Do not use putty.
- (4) Two lead or treated wood setting blocks as wide as the thickness of the unit are to be placed

GARAGE ELEVATION

one-fourth of the opening width from each end of the unit.

(5) Place sufficient glazing compound on the back of glazing rabbet. This allows unit to be positioned, filling voids behind edge of glass.

#### Structural Glass

Structural glass was originally developed for sanitary purposes for washroom partitions and walls, but is now widely used also for store fronts and similar installations. Stronger and cheaper than either marble or tile, it is uniform in size, available in many different colors, and provides a permanent exterior surface of durability and beauty. It is not tempered, and may be cut, laminated, or otherwise worked in process of construction. It is also popular for bathrooms and kitchens.

Corrugated structural glass, a heavy cast or rolled glass, is available either clear or sandblasted, and may be obtained in two corrugations, one with waves one inch deep on  $2\frac{1}{2}$ -inch centers, and the other  $\frac{1}{2}$  inch deep on  $2\frac{1}{2}$  inch centers. The former meshes with structural steel corrugated siding and may be installed along with corrugated steel in industrial buildings.

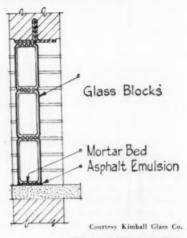
#### Architectural Glass

Architectural glass, as a special classification, is similar to obscure or patterned glass, but it includes as a Courtesy Kimball Glass Co.



group those sheets or panels which have very deep corrugations or patterns and are frequently patterned on one side and flat on the other. Surface finishes may be clear, fire-polished, matte, mirrored, sand-fused; actual

#### garage window

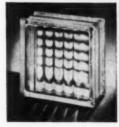


AMERICAN BUILDER

# Everything you need to lay up PC GLASS BLOCKS

## ... from one reliable source

#### DECORATIVE PATTERNS



3

\*ARGUS For decorative and ArGUS For decorative and lighting effects. Outer faces are smooth, inner surfaces have rounded flutes sealed at right angles to each other. Available in nominal 6, 8, and 12 inch squares and 6" and 8" corner and 9" and 8" corner squares and 6" and 8 and 8" radial patterns.



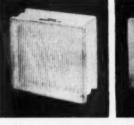
ARGUS PARALLEL FLUTES DECORA Outer faces are smooth. Block is almost transmission with moderate dif-both sets of flutes are parallel, available in nominal 6, 8, and 12 inch squares. Sinch block are parater spins 8' radial and 6'' and 8'' corner styles. cut heat transmission





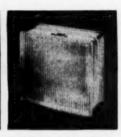
VUT Transparent pattern per-mits general vision beyond glass block panel. Often used as vision strips in standard block panels to avoid "shut in" feeling. Both faces are smooth. Available in nominal 8-inch squares and ra-dial shapes.

#### FUNCTIONAL PATTERNS

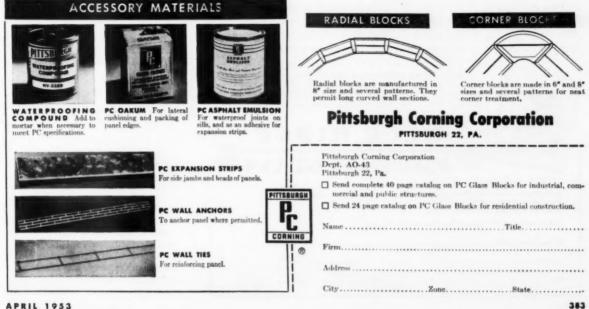


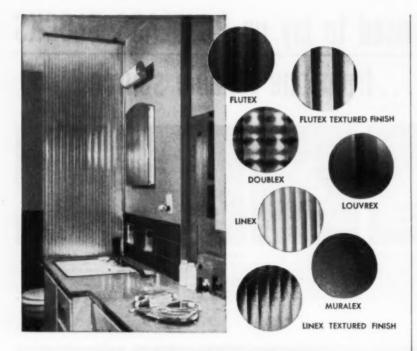


SOFT-LITE' BRISTOL 35 LX SOFT-LITE' ISSIX 835 For General purpose light diffusing general light diffusing or below block. Contain diffusing screen eye level use in sunlighted pan-light. Brow interior walls. Available in nominal 8-inch synarce only. SOFT-LITE' BISM 835 Light. SOFT-LITE' PRISM 835 Light. Soft-Lite' dige climin-synarce only. SOFT-LITE' PRISM 835 Light. Soft-Lite' dige climin-synarce only. SOFT-LITE' PRISM 835 Light. SOFT-LITE' PRISM 835 Light. SOFT-LITE' PRISM 835 Light. SOFT-LITE' PRISM 835 Light. Soft-Lite' dige climin-Soft-Lite' dige



•T.M. Reg. Applied for





## GLASS PARTITION ..adds a lot for a little!

You know how prospects go for the extra little touches—like the panel of patterned glass in this bathroom. This glass provides privacy, but passes light through. Just a few feet of inexpensive glass—but it marks the house as different, appealing.

Many builders have used Blue Ridge Patterned Glass to give homes extra—and quicker—saleability. They've used panels by the entrance door—as a partial or full partition between rooms—as exterior glazing where they want both daylight and privacy.

Blue Ridge Patterned Glass does double duty for you—for it decorates on both sides—and needs no finishing. It comes in a wide range of patterns. Shown here (quarter size) are just seven of the most popular patterns for homes. Your L·O·F Distributor or Dealer can show you samples of these and many more. Call him. And mail the coupon for our book of decorating ideas.

0	<b>BOOK OF 42 DECORATING IDEAS.</b> "New Adventures in Decorating" shows how leading architects and decorators have used this lovely glass to add light and distinction to home interiors. Send coupon for free copy.
NUI	BLUE RIDGE
	Patterned GLASS
Patterned & Wire	ord Glass Compony e Glass Sales Iuilding, Toledo 3, Ohio
Please send me m	y free copy of "New Adventures in Decorating."
Name (please pr	int)
Address	en e

materials may be those of ordinary glass, Pyrex chemical-resistant glass, or colored in various hues.

#### Glass Block

Glass blocks are made of two sections, or lenses, fused together with a hollow, moisture-free chamber between. This dead air space makes an effective temperature barrier. Mortar edges are coated with a grit-bearing plastic coating to insure adherence to the mortar. Masons with ordinary tools can lay glass block without difficulty. In most installations it is necessary to use an expansion strip at jambs and heads of panels, plus a good gungrade non-hardening caulking compound around all joints. Wall ties and panel anchors may be used to tie thes panel to the masonry wall and to anchor the panel to the jamb.

Blocks are available in a wide range of patterns and several standard sizes, including radial blocks and curved corner blocks. Some manufacturers are offering "prefabricated" panels of glass block, and one at least is marketing a complete window unit in steel frame with sliding vision strip at the bottom. Ventilator blocks with stainless steel or glass louvres are also available to provide ventilation in situations where a solid glass block wall panel is not desirable.

#### Mirrors

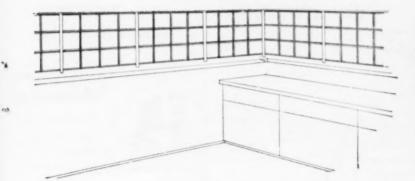
Mirrors are sometimes made of ordinary drawn sheet glass, but better grades utilize polished plate glass, with highly polished surfaces and backs of either silver, gold, or casting bronze. Maximum sizes of mirrors are governed by maximum sizes of plate glass. Copper back mirrors are made up to 86 by 168 inches.

#### GLAZING AND CAULKING COMPOUNDS

For glazing wood sash, it is recommended that whiting putty or whiting putty and white lead conforming to U.S.G.M. Spec. No, 283 be used. For glazing metal sash, use whiting putty with 5 per cent litharge or a metal sash elastic glazing compound. FHA specifications which call for whiting putty require a type consisting of finely powdered natural chalk, a minimum of pure tinting color, and pure raw linseed oil.

Elastic glazing compounds differ from ordinary putty chiefly in that specially treated oils are used so that the compound will remain elastic even under extreme conditions of vibration and exposure to the elements.

AMERICAN BUILDER

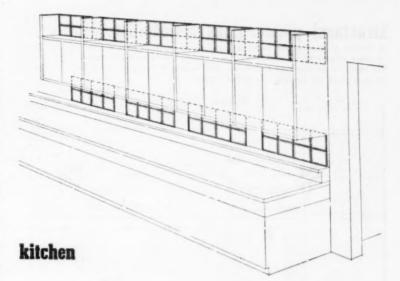


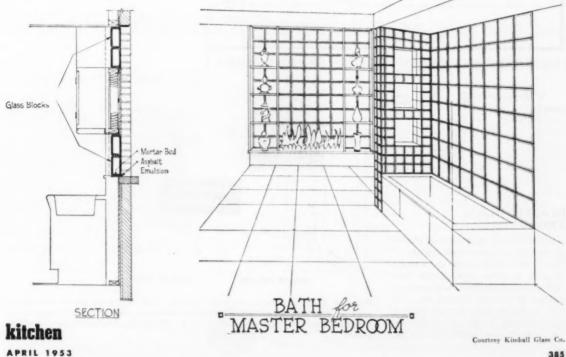
## glass block detail plates

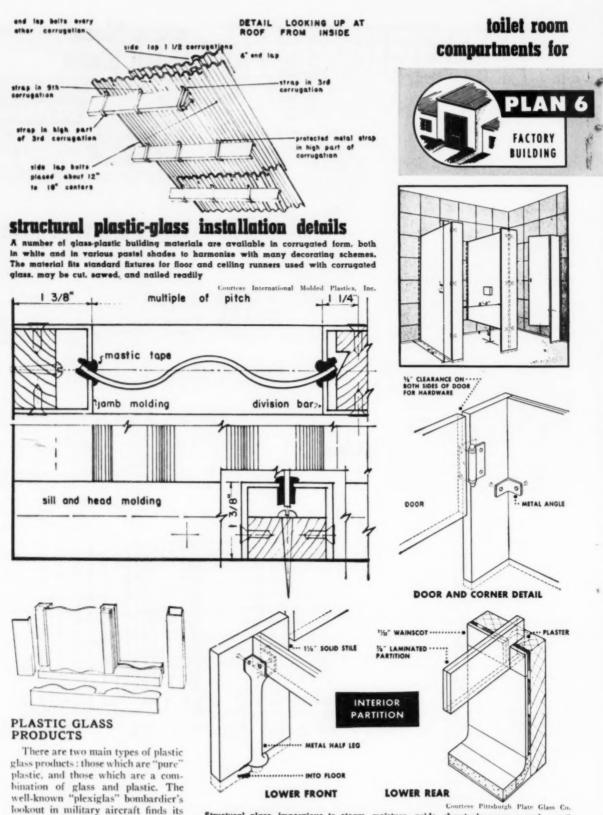


### garage corner

Litharge, which is lead oxide, is added to putty to make it set from the bottom rather than just skimming the top. White Lead and Whiting Putty consists of 10 per cent white lead with regular whiting putty. However, the trend today is definitely towards proprietary mastic glazing and caulking compounds. These are easy to use, are said to remain permanently elastic. are unaffected by heat and cold, do not harden in the container, and do not waste before being used, as is frequently the case with small amounts of unused putty. While many caulking compounds are made up for application by gun or from a tube, some also are made in pre-moulded strips for easy application by hand. Almost all are available in a wide range of tints to match wall surfaces.







Structural glass, impervious to steam, moisture, acids, chemicals, grease, and pencil marks, makes effective partition material for toilets and shower rooms. Compariments illustrated here have over-all height of 5' 8". Walls may be large slabs instead of pattern

civilian counterparts in roof hatches

and skylights, in "blisters" which ad-

mit sunlight into modern ranch-type



Installed in place of sash, Insulux Glass Block hides outside views and makes a sound, weather-tight, insulating wall.

#### Daylig ht Engineering AILABLE GLASS BLOCK ENDS



A typical example of the millions of damaged or loose-fitting cellar sash that need replacement with Insulux Glass Black.

### **BASEMENT WINDOW PROBLEMS**

Here's a way to end forever complaints about broken or damaged basement windows! Use panels of Insulux Glass Block.

A panel of Insulux Glass Block makes a sound, weather-tight, insulating wall that lets in light but blocks out sight. It is extremely hard to break and it can't ever rust or rot.

Supplies of Insulux Glass Block and all the installation materials are non-critical and immediately available. Installation can be made at the time the mason puts in the foundation (the 8" sizes fit 8" concrete blocks perfectly) or as replacement for oldfashioned sash in houses already built. In

either case, installation is simple and easy ... requires only ordinary mason's tools.

One Insulux Glass Block job in a home can lead to others. In fact, anyone who wants light but not sight is a customer for Insulux Glass Block. Applications are practically unlimited.

Get all the information about the many profitable glass block applications you can find in the average home. We'll be glad to send you complete details about this, and other, uses of Insulux Glass Block panels. Just write Insulux Glass Block Division, Kimble Glass Company, Dept. AB4, Box 1035, Toledo 1, Ohio.



**KIMBLE GLASS COMPANY** Toledo 1, Ohio-Subsidiary of Owens-Illinois Glass Company

# Sell COLOR, LINES, BEAUTY, with RESOLITE TRANSLUCENT PANELS

and treat your customers to the glamour of color and translucency... the economy of permanent finish... the safety of shatter-proof, crackproof glazing.

Home patics are beautiful and protected with a canopy of colorful, translucent Resolite — easily installed on metal or wood framing.



For decorative or utility partitioning in homes, office or shop, Resolite's wide variety of beautiful colors makes it the ideal paneling material. Amazing lighting effects are easily obtained because of its translucency. Its corrugations are useful in obtaining special effects of height or breadth.

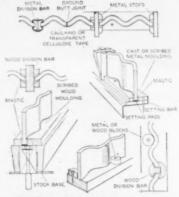
Patio canopies of colorful translucent Resolite afford protection from sun and rain yet avoid the gloom of opaque coverings.

Resolite is made of polyester resins, reinforced for strength and rigidity with an interwoven mat of glass fibers. Resolite is unaffected by weather extremes of heat, cold or moisture. Resolite needs no surface treatment or refinishing; its colorful glossy surface easily wipes clean.



CUT AT TOP BUDOTH SUBFACE CUT AT BOTTOM

DIMENSIONS of two of the types of corrugation that are available



#### SUGGESTED DETAILS for installing structural corrugated glass

homes, in shower screen installations, decorative interior panels and partitions of many kinds.

Among plastic and glass combinations are the familiar types of safety glass and more recent types developed to reduce shattering of glass. One popular plastic and glass material comes in a number of attractive colors. is frequently corrugated to correspond with the corrugations in metal sheet. and is used extensively in roof panels. siding, as awnings over doors and entrances, and on edge as interior partitions. It may be cut, sawed, and nailed and otherwise worked very much like wood. It does not shatter like glass, but has all of glass's normal heat-resistant and weather resistant quality. It is available with 25% inch corrugations in 8, 10 and 12 foot lengths and in widths from 26 to 40 inches, as well as in other sizes and in corrugations up to 4.2 inches.



CAULKING COMPOUND being applied around outside of window frame to insure weather-tightness

AMERICAN BUILDER



Basic roof types are the gable, hip, hip and valley or intersecting gable, gambrel and flat roof. Roof sheathing supports the weight of the covering material, provides a nailing surface for it, braces the rafters and helps to keep interior warm.

#### **ROOF SHEATHING**

Sheathing can consist of boards laid squarely across the rafters in varying widths with edges tightly butted or matched. If desired, a diagonal treatment may be used for greater wind resistance.

Roof boards or slats under wood shingles should be not less than 3 inches wide by 3/4 inches thick. Placing of slats should begin at eaves.

For asphalt or asbestos roofing, the deck should be carefully matched or shiplapped from eaves to ridge. All boards should be nailed twice at every support with 8d nails. Unless end-matched sheathing is used joints should be over rafters. Red Cedar Shingle Bures



#### **Plywood Roof Sheathing**

Thicknesses of plywood roof decking vary with roof loads and rafter spacing. FHA accepts  $\frac{5}{16}$ -inch plywood sheathing over rafters 16 inches O.C. under both wood and asphalt shingles. However, unless  $\frac{1}{2}$ inch plywood is used, wood shingles must be applied with nailing strips. Under certain conditions, if  $\frac{1}{2}$ -inch is used, the rafters may be spaced 24 inches O.C.

18 used, the SO.C. 24 inches O.C. Nail  $\frac{5}{16}$ ,  $\frac{3}{8}$ , and  $\frac{1}{2}$ -inch plywood with 6d common nails not more than 6 inches apart at edges or 12 inches elsewhere.



Laying three-tab, square butt asphalt strip shingles with cutouts centered over tabs from course to course

APRIL 1953

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Roof Sheathing

Plywood Sheathing

Insulating Sheathing

Roofing

Wood Shingles Asphalt Shingles and Roll Roofing Asbestos-Cement Shingles Flashings, Roof Valleys Corrugated Sheet Steel Roll Roofing Copper Roofing Built-up Roofing Slate and Tile Roofing Cedar Shakes

Sidewall Sheathing

Wood **Ply**wood Gy**ps**um Ins**ulating Board** 

**Building Papers** 

As**phalt** Kraft Laminated Machine-finished

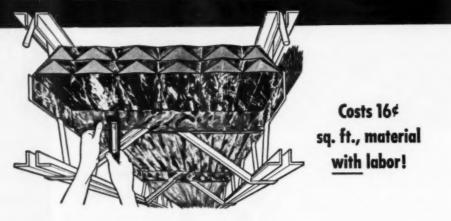
Siding

Plywood Wood Siding Cedar Shakes Asbestos Cement Siding Shingles Aluminum Siding Insulated Siding

Types of Insulation

Loose Fill Glass Blanket Batt Board Reflective Slab

## for Steel Beam and Truss Problems of Heat Loss, Heat Intrusion & Condensation



#### In Factories, Warehouses, Residences, Stores, Hospitals, Theatres, Markets, Arenas, Schools, Hangars, Gymnasiums

It is hard to keep these buildings warm in winter and cool in summer. Condensation sometimes forms, drips, causes damage. The problem is often solved by insulating with three tough, never-touching sheets of aluminum compartmented by two fiber partitions.

Steel beams are good conductors, extract much heat from the surrounding atmosphere, which causes a dewpoint to be reached with resulting condensation. They need insulation against heat and vapor flow. Multiple accordion aluminum sheets are virtually non-condensation-forming, retain no moisture, have zero vapor permeability. Their heat emissivity on the cold side is 3%.

Contrast this with the necessity of heating-up tons of steel beams and ordinary insulation, sometimes wet, which wastefully radiate heat at a 90% rate on the cold side. In summer, iron and steel beams, ordinary insulations, and most building materials, often continue to radiate uncomfortable heat into a room long after the outside air has cooled.

#### INFRA TYPE 6HW

#### **Thermal Factors**

Up-Heat	C.089,	R	11.23	-	43/5"	dry	reckwool
Wall-Heat	C.073,	R	13.69	-	55/8"	dry	reckwoel
Down-Heat	C.044,	R	22.72	-	9"	dry	rockwool

Exposed Aluminum .002<sup>2</sup> Thick Bursting Strength 52 lbs. (Mullen Test) Tearing Strength 80 grams (Elmendorf Test) Multiple accordion aluminum sheets are not only cooler at night, but through the hot summer day maintain temperatures which are sometimes 10 degrees to 20 degrees cooler than the shade outside.

A new form of pre-fabricated multiple accordion, very tough, aluminum insulation for steel beams and trusses is available as Infra 6HW, 1½" wider than standard, and heavier. A type 4HW, with 4 reflective spaces instead of 6, is also available.

The general question of preventing unwanted heat and vapor flow is authoritatively and interestingly discussed in Schwartz's "Simplified Physics of Vapor and Thermal Insulation." Steel and beam problems are included. For samples of the new insulation and copies of the manual, use the coupon.

Infra Insulation, Inc., 525 Broadway, New York, N. Y. Telephone WOrth 4-2241

S25 Broadway	ATION, INC. N. Y., N. Y. Dept. B4
	EE "Simplified Physics of Vapor
	344411/11.
Name	,
Name	, ,





PLAN 1 RANCH TYPE HOUSE

#### **Insulating Sheathing**

Roof sheathing materials which combine insulating qualities are produced in panels up to 8x14-feet. These require fewer handlings and nailings than materials of smaller size. Asphalt or asbestos shingles can be applied directly to such sheathing with furring strips 12 inches O.C.; for wood shingles, furring strips are nailed to rafters at centers required by shingle size.

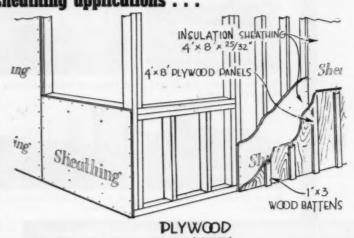
#### ROOFING

The most common roofing types are shingles made of wood, of a mixture of felt and asphalt covered with erushed slate, or of combinations of asbestos and cement.

#### Wood Shingles -

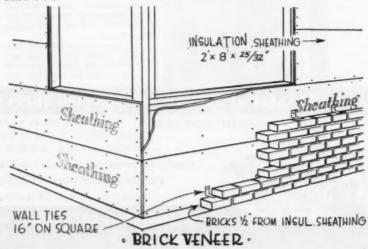
Wood shingles may be nailed over 1x3-inch or 1x4-inch strips, spaced the same distance as the shingles are exposed to the weather; or nailed on a tight deck of square-edged or matched boards. Joints between shingles in any one course should be at least  $1\frac{1}{4}$  inches from joints in next course below to keep driving rain from penetrating underneath. Shingles in each course should be spaced not less than  $\frac{1}{4}$ -inch apart.

The type of nail used is important because ordinary iron shingle nails will rust and loosen the wood shingle before the shingle needs replace-



BOARD & BATTEN

Wood fiber insulating sheathing with a plywood simulated "board and batten" type exterior is detailed above. Anchor holds brick to frame in brick veneer application below . . .



AMERICAN BUILDER

Armstrong Cork Co.



#### Rose Hill, N. C. Officials Praise Carey Fire-Chex Shingles!

Excerpts from sworn statements by Chairman of Mt. Zion Building Committee and Rose Hill, N. C. Fire Chief-

"Owing to the fire-resistant quality of the (Carey) shingles, the fire was held in check for three hours. I have no hesitancy in saying quite frankly that all of us attribute the saving of our buildings ... to your very fine shingle."

> Chm., Bldg. Comm. Mt. Zion Presb. Church

"It is a pleasure for me to recommend your shingle, from the standpoint of fire-resistance, without any reservation. The evidence in this particular fire speaks for itself."

H. B. funel chiff Rose Hill Volunteer F.D.

## CAREY FIRE-CHEX SHINGLES

With interior gutted by fire, this church at Rose Hill, N. C. still stands — a tribute to the amazing fire-resistance of Carey Fire-Chex Shingles!

Despite intense heat and flames which gutted the interior of the Mt Zion Presbyterian Church at Rose Hill, N. C., the Carey Fire-Chex roof remained virtually intact! Even when a section of the roof collapsed after supporting members burned through, Carey Fire-Chex shingles *prevented spread* of fire to adjacent roof areas and certain destruction of the entire building!

Carey Fire-Chex, made of a new, patented asbestos-plastic, are the first and only shingles ever to win Underwriters' Laboratories, Inc. highest fire-protective rating—CLASS A\*. And, in addition to unequalled fire safety, Fire-Chex also offer longer life, greater beauty. Made extra-thick (weight 325# per sq.) for extra wind and weather protection, Fire-Chex feature new shadow-blend beauty—create roof designs copyrighted as works of art.

Give your clients the priceless fire protection, rich beauty and long, maintenance-free performance of Carey Fire-Chex Shingles. See your Carey dealer—or write *now* for illustrated literature!

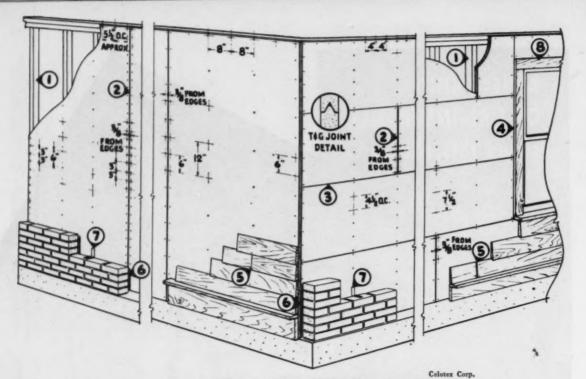
\*Without asbestos underlayment

FROM THE HOUSE OF CAREY Bathreem Cabinets and Accessories - Ventilating Tens -Ceramo Asbestos Siding -Corrugated Asbestos Cement Siding - Fire-Guard Back Weel Insulation - Fire-Chax Asbestor-Plastic Shingles - Other fameus products for home, form and industry.



The Philip Carey Mfg. Company, Lockland, Cincinnati 15, Ohio Dept. A8-4

APRIL 1953





ment. Hot-dipped, galvanized nails are recommended. A round nail with blunted three-cornered point is well suited for putting on shingles as it is less likely to split the wood.

#### Asphalt Roofing

In applying asphalt roofing when old roofs remain in place, removal of the old covering generally is not necessary if (1) the deck and framing are strong enough to support workers and new roofing, snow and wind loads; (2) the deck will give good anchorage for nails. In high wind areas shingles at eaves and rakes should be cut back far enough to allow application of 1-inch wood strips 4 to 6 inches wide.

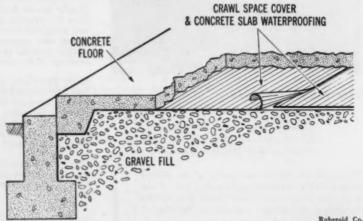
To prepare old asphalt shingles for new asphalt roofing, nail down or cut away loose, curled or lifted shingles; remove loose and protruding nails and badly worn edging strips, and replace with new ones.

In preparing old roll roofing, slit buckled sections and nail the pieces down smoothly; also remove loose and protruding nails. If parts of the deck are exposed, examine these areas for loose or pitchy knots and excessively resinous places. Cover such defects with sheet metal.

#### siding with insulating sheathing

Step by step erection of insulating sheathing: (1) Erect framing 16 inches O.C. for 1/2inch and 25/32-inch sheathing. (2) Allow ½-inch space between adjoining big boards and center matched sheathing. (3) Apply center matched sheathing with tongue up. Join 16g joints securely: stagger end joints in successive courses. (4) For snug window and door frame joints, make contact close. (5) Wood siding ends should fall at center lines of studs. (6) Minimum air space between masonry and sheathing: ½-inch. (7) Under masonry use non-corrosive metal ties at rate of one per 160-260 square inches of wall area; 1-inch nail penetration through sheathing into studs. (8) Use sheet metal or flashing over head casings of windows and doors . . .

#### waterproofing membrane . . .



a'

Top of gravel is covered with layer of asphalt material lapped at least two inches. Full area of lapped edges is coated thoroughly with cement and pressed together. Material is also designed for use as crawl space cover

If old roofing must be removed, repair and clean framing to make it level and strong. With old slotted decks, fill in all spaces between boards with securely nailed wood strips of same thickness as original boards.

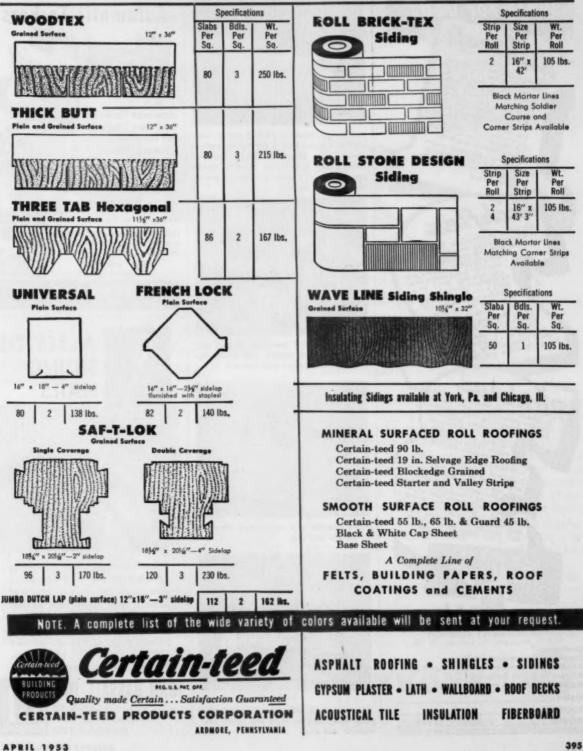
**Asbestos-Cement Shingles** 

The interlocking design of asbestos-cement shingles permits concealed nailing.

These shingles come in strips, are self-aligning and self-spacing. Acces-(Continued on page 401)

## **ASPHALT Roofings & Sidings**

#### for every new construction and replacement need!



## Lei the RICH-TRIPLETS work for you! Richkraft is a Rich Reflective Insulation With Richflex you do old flog ngs will cut lichbeau c • THE RICHKRAFT COMPANY 510 10, 111. N. Dearborn St., Chicago Gentlemen : Please send me complete details on : Richkraft Reinforced and Breather Papers Richflex Reflective Insulation Richbead for dry wall corner protection NAME.

ADDRESS. TOWN ZONE\_STATE

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how to apply wide - lapped plywood siding . . .



Panels are ripped to 16-inch widths, beveled with tilting saw to provide drip edge. Panel edges should be sealed (above) with heavy application of high grade house primer, aluminum paint, or heavy lead and oil paint



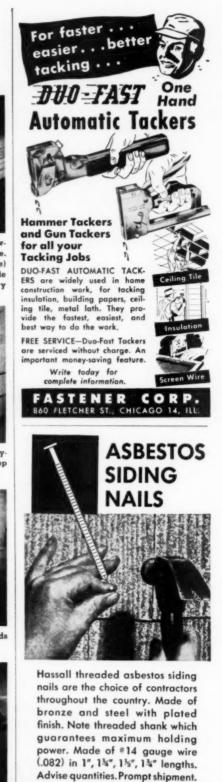
For deep shadow line. nail strip of plywood or 3/2-inch furring strip along top edge of each course and (below):



Place shingles over studs where the ends of panels will butt



Next course of siding goes over furring strip and shingles, with end lying over shingle and stud



JOHN HASSALL, INC. 188 Clay Street Brooklyn 22, N.Y.

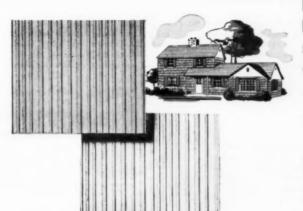






### Keep your customers happy with FLINTKOTE





#### Put new life into homes! Recommend colorful FLINTKOTE roofing, sidings and decorative interior board!

Are you taking advantage of the recent swing to color? Everybody wants color...for modern, new construction, and for modernizing existing houses.

And we have just what they want.

Flintkote ... style leader of roofing for the building industry ... anticipating the trend, offers a wide variety of practical, pleasing colors and blends in asphalt shingles.

Also . . . popular, beautiful Flintkote Stri-Color\* Asbestos-Cement Sidings have virtually revolutionized the siding industry. They have handsome, new colors for monotone or two-tone effects, or for combination with stone, brick, stucco, etc., and the famous DURA-SHIELD\* water repellent, stain-resistant protective finish.

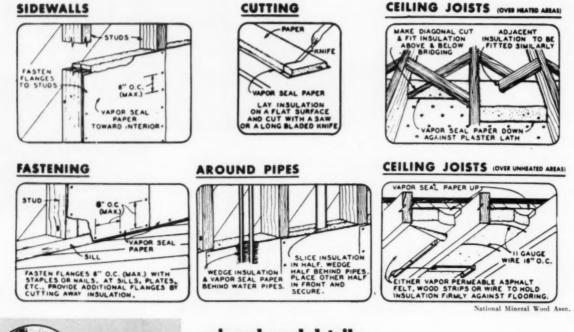
And ... lovely new colors enhance our always popular line of Decorative Insulation Board and Tile. Use it to brighten up game rooms, attic bedrooms, libraries, etc. ... and to hide unsightly walls and ceilings.

Get more color into your new and re-modeling jobs. You'll find it pays off well in profits and customer satisfaction.

May we send you illustrated literature?

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





#### mineral wool details . . .

Mineral wool batt or blanket insulation for Plan 3 house: all exposed walls from foundation sill to exposed first or second floor ceilings, including junction walls of garage and house: 3-inch thick material. Entire second floor ceiling, rear entry, lavatory and recessed front entry ceilings of first floor: 3%-inch thick material. All insulating material should be fitted together to provide continuous surface between studs or joists

#### gypsum sheathing applications . . .

PLAN

TWO STORY

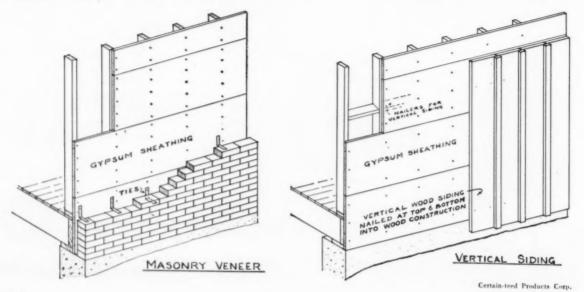
HOUSE

Gypsum sheathing is applied horizontally in 2-foot by 8-inch wide sheets with 11gauge, galvanized large-head roofing nails  $1\frac{3}{4}$  inches long. Nails are spaced 8 inches on center under wood siding and other exteriors nailed through sheathing on wood framing: 4 inches on center under other exteriors such as masonry. Where gypsum siding is used, all openings should be of depth for  $\frac{1}{2}$ -inch sheathing



..

-



## Perma Products Offer your customers these 5 leaders for FASTER, BETTER PROFITS

Shakertown GLUMAC Units

The modern, time-saving way to apply weathertight cedar shake sidewalls. Save up to 70% in application costs. Unit consists of famous Shakertown Sidewalls electronically bonded to waterproof backer board. Only 22 pieces cover 100 sq. ft. at 14" exposure. Packed 11 units per carton. A quality product priced for today's market.



America's most-imitated sidewall material. Finest quality Certigrade shakes with deep-grooved surface, colortreated and machine brushed for uniform quality and appearance. Nine architect-selected colors to blend with any design or structural material, for new construction or remodeling. Over 30 years of outstanding reliability. Carton protected; packed one half square per carton.

PERMA-STAIN for Shingles

PERMA-STAIN

SHINGLES



Especially formulated for cedar shingles and shakes. Brings out the natural beauty of wood texture; adds years of service life. Has balanced capacity to penetrate for preservation and cover for beauty and protection. Smooth, even flow to the touch of the brush — saves labor cost, speeds application. Nine popular colors.

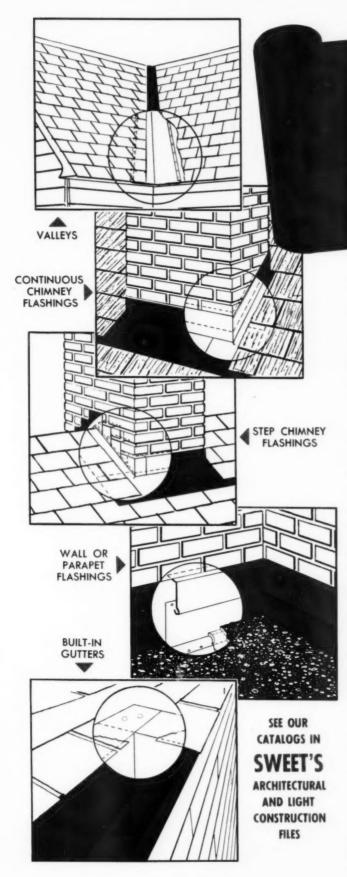
The standard of quality in smooth-surfaced cedar shingles for roofs and sidewalls. Color-treated with a balanced blending of finest pigments and oils. Combining modern styling and beauty with extreme long life, light weight and extra insulating properties. Ideal for re-styling and modernizing. In eight standard colors and prime white. Packed four cartons per square at standard roof exposure.

JIFFY, CORNERS New, lifetime, metal corners to protect cedar shingles and shakes. Concealed spring clip at base holds metal corner tight against wood surface. Pre-drilled nail holes permit quick, simple installation. Eliminate lacing, jointing, time-wasting fitting. Speeds construction. Adds protection. Improves finished sidewall appearance. Packed one gross per carton.

> Write Today for folders, samples and complete information.







Don't be satisfied with a substitute when you ask for "valley tin". Insist on the original "valley tin"..... FOLLANSBEE Seamless Terne Metal

#### WHAT IS TERNE METAL

FOLLANSBEE SEAMLESS TERNE METAL, which is the original "Valley Tin", consists of copperbearing steel strip coated with a lead-tin alloy. In addition to its use in valleys, Terne Metal is also widely used today for all types of flashings, for gutters and gravel stops, for copings and canopies, and anywhere else metal is used on all types of roofs, such as built-up, asphalt or asbestos shingle, tar-and-gravel, slate, or tile.

#### COATINGS, GAGES, WIDTHS

Terne Metal is available in 50-foot continuous rolls, free of unsightly and costly cross seams, in 40 lb., 20 lb., and 8 lb. coatings, in IC and IX gages, and in widths of 4'', 6'', 7'', 8'', 10'', 12'', 14'', 20'', 24'' and 28''. It is supplied unpainted, painted one side, or painted two sides, as desired, and this mill-applied coat of paint doesn't interfere with soldering.

#### PHYSICAL CHARACTERISTICS

When weathersealing with Terne Metal, there is no need for expansion allowances or joints, for Terne expands and contracts only 0.2195" in 30 lineal feet for a 100°F. temperature change. Terne Metal is tough enough to absorb and withstand these slight changes, for it has the tensile strength of steel—45,000 lbs. per sq. in.

The Terne Metal weathersealing may be painted immediately after installation, for there is no need for weathering to condition it for the paint. The weathersealing may be painted any color, to match or harmonize with the color of the roof, or with the exterior trim of the structure.

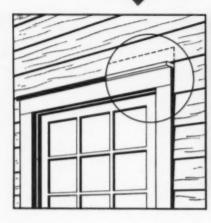
#### **IDEAL WEATHERSEALING**

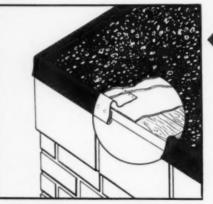
To sum up, Follansbee Terne Metal is flexible in its application as weathersealing; it comes in a large variety of widths for any purpose; it has a low expansion and contraction rate; it has the rugged strength of steel; the coating does not flake or peel off; it resists tearing in installation; it is fire-resistant, for it is all metal, with nothing to burn; and it has a low maintenance cost, only an occasional painting. All these features add up to a completely satisfactory weathersealing material.

Box Ternes are still available on special order if desired.

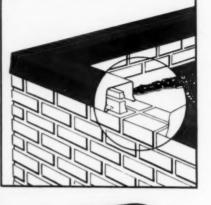
Pre-cut Terne Metal flashing shingles, 5" x 7", painted two sides, can be supplied in packages of 100.

WINDOW FLASHING





MOLDED GUTTERS



GRAVEL

STOPS

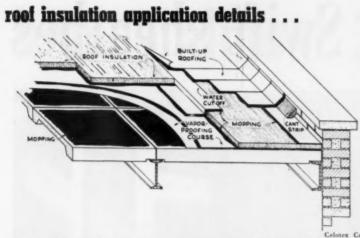
COPINGS FOR

PARAPET WALLS



The properties of Follansbee Seamless Terne Metal that make it desirable for Weathersealing also make it the best material for complete roofs. The architect and the man of the house like the good design features and the fine service it renders; the woman of the house likes its beauty of design and the color range it makes possible by the use of paint; and the builder, in addition to liking all these qualities, knows that he can build a house with a Terne Metal roof incorporating lighter structural design, because he is free of concern for the weight of the roof.

#### FOLLANSBEE STEEL CORPORATION PITTSBURGH 30, PENNSYLVANIA



Installation of roof insulation on flat, pre-cast concrete deck of factory building. Vaporproofing course is two plies, lapped half, of 15-pound tar- or asphalt-saturated roofing felt in mopping of hot plich or asphalt with hot bitumen between laps. Upper left: details of sealed joint roof insulation

#### (Continued from page 394)

sories such as eave starters, hip and ridge shingles and ridge rolls are purchased separately. A clean, level roof deck is a must

A clean, level roof deck is a must for maximum serviceability of these shingles. Installation should be made in dry weather. Minimum roof pitch is usually specified as 5 inches per foot. Roof boards are covered with one layer of asphalt-saturated felt (not less than 15 pounds) with a 2inch horizontal lap, a 6-inch end lap and a 12-inch lap at hips and ridges.

A wood cant strip along the eaves, flush with the lower edge, gives a proper pitch. Starter courses are placed *under* the felt; the first course is laid *on* the felt.

#### Asbestos-Cement Corrugated Sheets

This incombustible, non-corrosive and weatherproof material is used chiefly for roofing farm buildings, garages and hangars, and light industrial buildings; it is said to be especially economical for industrial buildings because it contains nothing that can rust or rot.

Sheets are 42 inches wide and range in length from 3 to 12 feet. Average thickness is <sup>3</sup>/<sub>8</sub>-inch. Special fasteners are supplied for various types of framework.

#### Steel Roll Roofing

This type of roofing should be laid on selected waterproof paper (not tar or other paper containing acids). Nails should not be driven through the strips. Solder should be strictly half and half; rosin should be used only as a flux for soldering with all rosin removed from seams before painting. Roofers should wear rubber shoes and avoid unnecessary walking on the roof.

#### how to install gypsum roof plank . . .

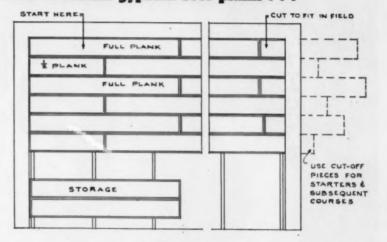
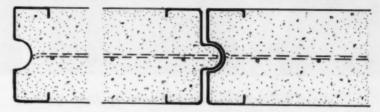


Fig.1

End joints of pre-casi gypsum plank must be staggered, whether over supports or not. Pieces left after cutting are convenient to start a new row. Below: strength of plank comes through meshing side joints which form continuous I-beam over supports



#### Fig. 2

Certain-teed Products Corp.

JOINT DETAIL

AN

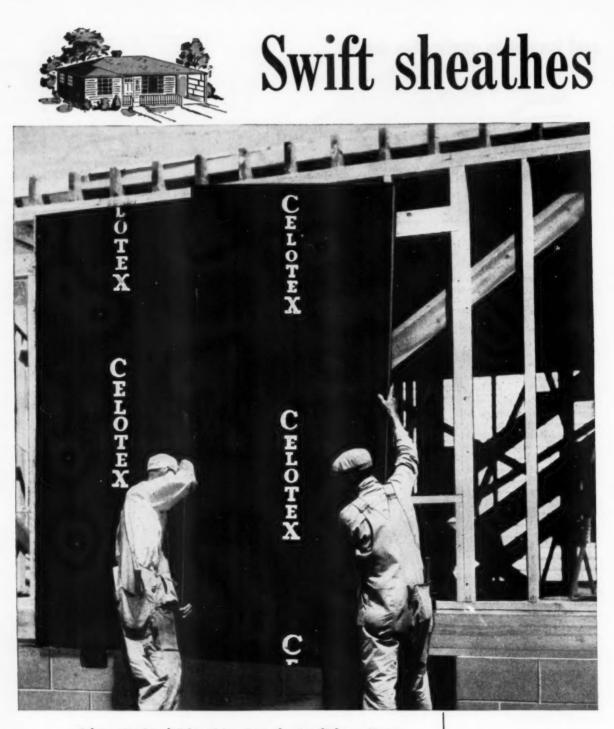
FACTORY

BUILDING

COURSE

#### **Copper Roofing**

The thickness of copper roofing is determined by the type of construction and location of the building. For sloping roofs of residences 10oz. copper has proved satisfactory; heavy industrial buildings may require up to 32-oz. per square foot, although 16-oz. copper is considered standard for general sheet metal work in building construction.



#### **Celotex National Advertising Puts the Spotlight on You**

To help make 1953 a banner year for you, Celotex is staging a great new national advertising campaign. Big, colorful, hardselling ads-month after month-in THE SATURDAY EVENING POST, BETTER HOMES & GARDENS, AMERICAN HOME, SMALL HOMES GUIDE. All telling prospects in your own community - "See your builder!" These impressive, full-page Celotex ads are designed to build business for you. Tie in with them by emphasizing to every prospect that your homes are built with genuine Celotex Products. This makes your selling job far easier. For over a quarter century of national advertising has created unsurpassed public preference for the name Celotex! Impartial survey shows ARCHITECTS PREFER CELOTEX INSULATING SHEATHING 2 to 1 over the next leading brand

# homes almost 30% faster

## SINCE SWITCHING TO EXTRA-VALUE CELOTEX INSULATING SHEATHING

"Our erection crews can sheathe Swift Factory-Built Homes almost 30% faster since we switched to Celotex Double-Waterproofed Insulating Sheathing. It is easier to cut and fit, and reduces waste as much as 15%."

> Ira H. Gordon President SWIFT HOMES, INCORPORATED Elizabeth, Pennsylvania



Like Mr. Gordon, leading builders all over the country have found that Celotex Insulating Sheathing speeds erection, saves labor and materials. It makes your homes stronger, more comfortable, easier to sell. Applied, it costs no more and usually LESS than ordinary sheathing. Yet it gives you all these big added values ....

1. Insulates and Weatherproofs as it builds. All at one cost. No building paper needed.

2. No Corner Bracing Needed to meet F.H.A. requirements, with 4 ft. wide, 25/32" thick Celotex Insulating Sheathing. It is laminated for extra strength and rigidity. Has about 30% greater bracing power than ordinary sheathing.

3. Goes Up 30% Faster. Easier to cut and fit. Up to 15% less waste. Shingles can be applied direct, easily and quickly.

4. Double-Waterproofed. Inside, by integral treatment that coats every fibre; outside, by asphalt coating. Yet has high vapor permeability. Lets you resume work quicker after rain.

5. It is the Only Sheathing made of tougher, stronger, long Louisiana cane fibres - and protected by the patented Ferox® Process from dry rot and termites.

Mail coupon for free booklet telling how you can save as you build better homes with Celotex Insulating Sheathing.

#### Build Better...Build with Genuine

CI	ELOTEX INS	SULATING SHEATHING
	It's <u>double</u> waterproofed !	MAIL TODAY!
	The Celotex Corporation, 120 S. LaSalle Street, Chicago 3, Illinois	CityZoneState
APRIL 1953		403

# ARE OPEN-AIR DRIED



## The wise builder knows that Nature dries best . . .

There really isn't much of a trick to drying a pre-stained cedar shake – if you are willing to take the time and go to the trouble of doing the job right. Dozens of experiments have been tried in an effort to find a "quick" way to do the job. Hot lights, hot air, and hot ideas of a dozen kinds have been tried. We at Colonial Cedar Company have studied all of the short-cut suggestions, and we've found that nothing beats good old mother nature for drying shake stain.

So we just use mother nature.

We take the time to "hang Fitite Shakes out to dry" in the good old fresh air. Takes a lot of doing, a lot of storing, a lot of waiting; but it assures us that we are giving Fitite Shakes the best stain coverage in the business. Have you compared Fitite Shakes with the rest?

COLONIAL CEDAR COMPANY, INC. 600 WEST NICKERSON STREET, SEATTLE 99, WASHINGTON AMERICAN AULLOFE

#### Insulating efficiency without bulk

... Costs less ... Perfect vapor barrier, too!

# **REYNOLDS ALUMINUM REFLECTIVE INSULATION**

TYPE B - Embossed aluminum foil en both sides of kraft paper. TYPE C-Embossed aluminum fail on one side of kraft paper.

> -ATTIC LAYER TYPE

> > 90" TO U-.31

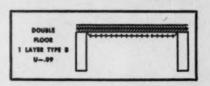
30" TD U-.29

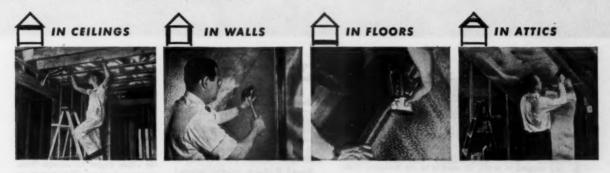
D FRAME WALL 1 LAYER TYPE B

U-.13

Quickest to apply, easiest to bandle! You cover 250 square feet with one 15-lb. roll ... just staple the bright sheets in place. Reflects up to 95% of radiant heat from whatever direction it comes. ... from the sun in summer, from stove or furnace in winter. And it's the perfect vapor barrier, too. All this, at half the cost of most bulk insulations! Write for information. Reynolds Metals Company, Building Products Division, 2003 South Ninth Street, Louisville 1, Kentucky.

In rolls of 250 sq. ft. - 25", 33" and 36" wide.





Inquire also about new, low-cost Reynolds Vapor Barrier.



W. P. "Bill" Atkinson ....



W. P. "Bill" Atkinson, Midwest City, Okla. Pres., W. P. "Bill" Atkinson Lbr. and Mfg. Co., Developer of Midwest City, Past Pres. National Association of Home Builders.

88



Balathorn

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**\$30,000 saving!** Bill Atkinson plans to build up to 300 quality homes like these in his new Ridge Crest subdivision at Midwest City. By using Insulite Sheathing instead of wood, he stands to cut building costs about \$101 per home . . . a total project saving of better than \$30,000! What's more, Insulite Sheathing means quality construction because it has extra insulation value . . . outstanding structural strength.

#### "Here's how to build better for less," says W. P. "Bill" Atkinson

ALL MADE LINE

Save! Cut sheathing time as much as 43%! One carpenter can sheath 1,000 square feet in 8 hrs. or less with Insulite Sheathing. Carpenters like to work with it because it's clean and easy to handle, easy to cut and apply.

Save! Reduce costly waste! Insulite Sheathing virtually eliminates waste! Here's an example. The waste that remained after a recent 6,000 sg. ft. sheathing job was one small wheelbarrow load! Compare this typical Insulite saving with the minimum of 12% waste figured on horizontal wood sheathing jobs!

Save! Eliminate building paper. Since Insulite Sheathing is waterproofed throughout with asphalt, there's no need for building paper. It protects against moisture, yet is highly permeable to allow vapor to escape from inner wall areas. Won't warp or buckle either. Store it or use it anywhere in any weather.

Save ! Eliminate corner-bracing. When you use Insulite's 4-ft.



Bildrite you can eliminate cornerbracing entirely. (4-ft. Bildrite was the first insulating sheathing to be accepted by F.H.A. for use without corner-bracing.) Bildrite's tremendous bracing strength is equivalent to that of diagonal wood sheathing—more than twice that of horizontal wood sheathing!

٩,

Write! See how you can save with Insulite Sheathing. Free literature includes cost-comparison folders with which you can easily figure your actual dollar and cents savings with Insulite. Write Insulite, Minneapolis 2, Minnesota. INSULITE AND BILDRITE ARE RED. T.M. H. S. PAT. OFF.

Build and insulate with double-duty



Made of hardy Northern wood

INSULITE DIVISION, Minnesota and Ontario Paper Company, Minneapolis 2, Minnesota



# QUALITY

Deniston Nails have been sold with complete customer satisfaction since 1926. They are the best nails for applying corrugated sheet metal, aluminum, slate and tile roofings.

## SELL DENISTON NAILS AND YOU SELL THE BEST.



No. 1 No. 2 No. 3 No. 4 No. 5

- Ne. 1. Triple-Lock Lead-Seal Straight Shank Nail. Comes Bright or Golvanized. Lead is under head and down the shank. When nail is driven, the hole in sheet is actually sealed with lead.
- No. 2. Triple-Lock Load-Seal Drive Screw Nail. Bright or Galvanized. Same head construction as No. 1
- No. 3. Tripie-Lock Load-Soal Drive Screw Aluminum Nail.

Made from special alloy to insure hardness, driving without bending and extreme holding power

No. 4. Denco Compressed Lead-Head Ring Shank Nail

Bright or Galvanized. A compressed lead head with lead both over and under a steel head. Head will not "pop" off from driving ar from expansion or contraction of steel or aluminum reafing.

No. 5. Pailet Nails, Drive Screw.

A quality nail  $2{\frac{1}{2}}^{\prime\prime}$  long x 10 gc. Cement ceated for extra holding power.

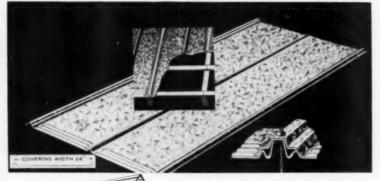
	AP			MBER OF		-SEAL	
Length Bright Hot Ga Alumini	Ivar		11/2** 96 94 156	134** 88 86 150	2" 82 79 143	2¼4 <sup>#</sup> 77 74	21/2" 71 69 129
		-Steel keg. Alu		ad and Nails-50			<b>100</b>

Deniston Nails are fully covered by patents

#### THE DENISTON COMPANY 4862 So. Western Ave. Chicogo 9, III.

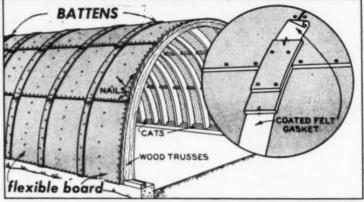
4862 So. Western Ave. Chicago 9 408

#### two-channel steel roofing . . .





Construction details of two-channel stéel roofing, showing two-drain channel. Material is applied with one row of nails: rib is double braced. "Twodrain" design is formed by a side-lap of two sheets. Figure at left: Erection should be started at left side but can be laid from right to left by lifting right-hand sheet to slip left sheet under to form side lap flexible roofing for curved trusses . . .



Johns-Manville Corp.

Flexible asbestos-cement board is applied here as roofing over curved wood trusses. Nailing of sheets starts at bottom. Horizontal joints are lapped to 3-inch minimum. Vertical joints are butted and covered with battens of same material applied over a joint assket

#### **Built-Up Roofing**

The built-up roof is a seamless covering of flexible waterproofed material, custom-built to fit the job. It can be applied hot or cold and is fabricated from felt, pitch, asphalt and gravel. Insulation is required because a major problem with builtup roofs is that of moisture on the underside resulting from condensation. At least one ply of roofing felt should be placed under insulation to act as a seal course.

#### Slate and Tile Roofing

Slate, a hard dense stone, is watertight, fireproof and stormproof. It rarely requires maintenance and has highly decorative color tones. On new roofing it is laid over asphaltsaturated felt and fastened solid with copper nails; if necessary, it can be applied directly over asphalt or wood shingles.

Exposed nails are covered with elastic roofing cement colored to match the slate. Surface texture is smooth or rough as desired. The material comes in average thicknesses of  $\frac{3}{16}$ -inch to  $\frac{3}{8}$ -inch, in lengths of 10 to 24 inches.

#### Cedar Shakes

Pre-stained red cedar shakes are suitable for roofs that have sufficient pitch to insure good drainage. Light in weight and having a low rate of expansion and contraction with changes in moisture content, they give excellent performance where exposure to the weather is greatest. They may be laid with standard exposure on roofs of not less than <sup>1</sup>/<sub>4</sub> pitch.

#### SIDEWALL SHEATHING

Sheathing ties the framework of a building together as well as providing some insulation and weathertightening qualities to the exterior walls. Proper fitting and nailing are requisites for a well-knit frame.

#### Wood Sheathing

Experience and tests show that a wall with diagonal wood sheathing, two nails at each stud in each board, is four times as strong as a similar wall with horizontal sheathing. On a two-story platform-type frame, diagonal ties the two floors together more efficiently than horizontal and also provides a better finish-nailing surface.

#### **Plywood Sheathing**

Manufacturers claim that plywood gives more than twice the strength and rigidity of diagonal wood sheathing. The minimum thicknesses for wall sheathing are  $\frac{5}{16}$ -inch for 16-inch stud spacings,  $\frac{3}{8}$ -inch for 24-inch. FHA minimum property requirements specify corner braces in house framing may be eliminated when 4x8-foot sheets of plywood are nailed with 6d nails, 6 inches O.C. at intermediate bearings.

#### Gypsum Sheathing

Gypsum sheathing comes in panels 2 feet wide, 8 feet long and ½-inch thick, a coverage of 16 square feet of wall area per panel. Panel weight is less than 35 pounds. The panels fit 16- or 24-inch stud spacings, reducing waste. Edges provide snug and continuous contact between sheets.

#### **Insulating Board Sheathing**

This is a structural board made of cane or wood fibers; standard brands are waterproofed with an asphalt coating or with an integral asphalt treatment. There are two main size groups, both with thicknesses of  $\frac{1}{2}$ - and  $\frac{25}{2}$ -inch. One group has dimensions of 4x8- or 4x12-feet, the other is 2x8.

The 4-foot width is applied vertically and nailed at the intermediate studs first with large-headed roofing nails spaced 6 inches apart. Nail spacing around edges is 3 inches.

The 2x8 sheathing, with interlocking horizontal points, is applied horizontally with the same nailing and spacing as the large sheets. Where rigid shingles are used as exterior finish, furring strips must be applied over the sheathing unless special self-clinching nails are used.

Asbestos siding shingles may be applied directly to this sheathing with self-locking nails; clapboard and ties for brick veneer are nailed through the sheathing into studding.

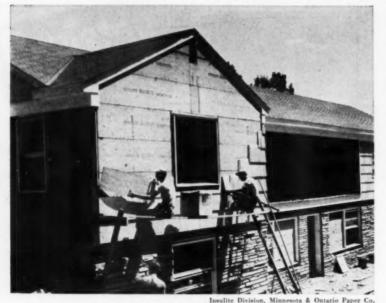


FIGURE 6.—Condensation zones.—Zone I roughly includes the areas with design temperatures  $-20^{\circ}$  F, and colder; sone, II 0° to  $-10^{\circ}$  F, and zone III areas warmer than 0° F.

	Type of roof	Condensation zone							
	and occupancy	I	п	ш					
(a)	Flat roof. Slope less than 3 inches in 12 inches. No occu- pancy contempla- ted.	Total net area of ventilation should be 1500 <sup>3</sup> distributed uniformly at the eaves plus a vapor barrier in the top story ceiling. Free circula- tion must be provided through all spaces.	Same as for sone I	Same as for zone I.					
(8)	Gable roof. Slope over 3 inches in 12 inches. No occupancy con- templated.	Total net area of at least 2 louvers on opposite sides lo- cated near the ridge to be 3/200 <sup>3</sup> plus a vapor barrier in the top story celling. •	Same ventilation as for sone I. A vapor barrier is not con- sidered necessary.	Same as for zone II.					
(c)	Hip roof. No occu- pancy contem- plated.	Total net area of ventilation should be \$500 \$ with \$600 \$ distributed uniformly at the eaves and \$600 \$ located at the ridge with all spaces in- terconnected. A vapor bar- rier should also be used in the top story ceiling.	Same ventilation as for zone I. A vapor barrier is not con- sidered necessary.	Same as for zone II.					
(d)	Gable or hip roof. With occupancy contemplated.	Total net area of ventilation should be 360° with 360° to distributed uniformity at the eaves and 360° located at the ridge with all spaces interconnected. A vapor barrier should also be used on the warm side of the top full story ceiling, the dwarf walls, the sloping part of tha roof, and the attic story ceil- ing.	Same as for zone I	Same as for zone I except that a vapor barrier is not con- sidered necessary if in sultation is omitted.					

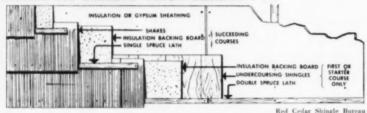
THE CONDENSATION zone map above can be used with the table below it as a guide in determining the potential moisture vapor condensation situations which should be considered in normally tight, well-insulated structures in various parts of the United States. Zone I roughly includes the areas with design temperatures—20 degrees F. and colder; zone III—0 to 10 degrees F.; and zone III areas warmer than zero degree F. The table is keyed to the map and contains recommended good practice for loft and attic ventilation

INDIVIDUAL					MOI!		E IN HO	USES	
									ounds of
								Vap	or Produced
Operation								per	Operation
Floor mopping (per sq. ft.	)								. 0.03
Clothes drying (per week,									
Clothes washing (per wee	ek)								. 4.33
Cooking				Fr	om f	boo	From g	as	
Breakfast					0.3	4	0.56		0.90
Lunch					0.5	1	0.66		1.17
Dinner					1.1	7	1.52	1	2.69
Bathing-Shower									0.50
tub									
Dish washing									
Breakfast									0.20
Lunch									
Dinner									
Human contribution (per h									
Gas refrigeration (per hou									
House plants (per hour, av									
Courtesy	Heat	ng	has	Ven	tilatin	a's D	eference I	hata	



Applying shingle-backer and shingles over insulating sheathing

#### details for stained cedar shakes .



Lath strip application of cedar shake walls over insulating board or gypsum sheathing. Lath, nailed at right, provides gripping strength for double-coursing nails

#### (Continued from page 409) BUILDING PAPER

Placed between sheathing and outside finish to prevent passage of air through walls, building paper should be tough enough to withstand rough handling, retain its strength when wet, and halt moisture passage.

A vapor barrier on the warm inside wall is considered essential when insulation is placed against sheathing; it is needed to prevent moisture condensation within the wall. The vapor barrier is a paper which keeps vapor from entering the wall from inside the house. The building sheathing paper which insulates the outside wall should not only be wind and rainproof but, in contrast to the vapor barrier, should allow vapor to pass through it, and should be five times as vapor permeable as the vapor barrier.

Four main types of building paper are: (1) papers impregnated with asphalt; (2) kraft paper impregnated with parafin; (3) laminated papers of two or more layers cemented with asphalt; (4) machine-finished papers.

#### SIDING

#### Plywood

Only exterior type plywood with waterproof adhesive bond should be used for permanent outside exposure. Plywood may be applied with molded battens, V-grooves or flush joints; it makes excellent wide siding when applied in half-panel or third-panel widths. Panels <sup>1</sup>/<sub>4</sub>-inch thick are used successfully in lowcost construction; <sup>1</sup>/<sub>2</sub>-inch or thicker has been found satisfactory for single-wall structures.

Non-corrosive nails such as the common hot-dipped galvanized type should be used. Nailing should be with 6d common or 6d box nails for 3/s-inch siding and 8d for thicker siding. When 4x8-foot or longer panels are used nails should be spaced not more than 6 inches O.C. at panel edges and 12 inches elsewhere.

FHA specifies that plywood used as siding must have minimum thickness of  $\frac{3}{5}$ -inch with studs 16 inches O.C. If sheathing is used plywood siding may be  $\frac{1}{4}$ -inch thick.

#### Wood Siding

Wood siding must be reinforced with sheathing except in climates where heating is not a factor.

It is always good to "lay out" siding before it is applied, so that the bottom edge of one strake will fall at bottom edges of window sills and that of another strake will run neatly over the top of the frame or drip mold. When drop or rabbeted siding is used, the lap of each board over the next below is determined by the depth of the rabbeting; with beveled siding the lap can be varied as the builder desires.

Where two pieces of siding butt, joints should be square. Corners can be finished as follows:

(1) Against corner boards: One piece of corner board should be wider than the other so that when in place the board will look the same from both sides. Also, corner boards should be slightly thicker than ends of siding; minimum thickness for 6-inch siding is <sup>3</sup>/<sub>4</sub>-inch. Heavier corner boards are needed for heavier siding.

(2) Mitered corners: While more attractive-looking, these are harder to apply than corner boards. Corner board technique is more air-tight and water-tight.

#### **Bevel Siding**

Customary widths of this material are 4, 5, 6, 8, 10 and 12 inches; it is usually  $\frac{3}{16}$ -inch thick on the thin edge and  $\frac{1}{2}$ - to  $\frac{3}{4}$ -inch on the other. Bevel siding 8 inches or wider often is called "Bungalow" or "Wide Colonial" and often has shiplapped or rabbeted joints so that it lies flat against studding. This application reduces apparent thickness by  $\frac{1}{4}$ inch but permits use of extra nails.

Also, rabbeted joints require less lumber than the lap joints used with plain bevel siding. The 4- and 6-inch widths of bevel siding do not require rabbeted joints; they are usually ½-inch thick and rabbeting would make them too thin.

#### Cedar Shakes

In addition to attractive appearance, prestained cedar shakes have insulating value which resists heat transmission. Edge-grain shakes are more weather-resistant and less likely to cut or warp on the wall than those cut flatwise of the grain.

Types of cedar siding shakes include processed shakes with parallel sides and square butts; the sim-(Continued on page 412)

#### TEMLOK® BOARDS

4.

Insulation and wallboards 4' x 6', 7', 8', 9', 10', 12', Thicknesses: ¾", ½", Colors: Ivory and Light Ivory.

#### TEMLOK

A handsome interior finish. 8", 12", 16" x 8' and 12'. Thickness: ½". Lok-Bevel Joint. Color: Suntan Blend,

#### TEMLOK

A decorative fiberboard ceiling finish. 12" x 12", 12" x 4", 16" x 16", 16" x 32". Thickness: ½". Lok-Bevel Joint. Light Ivory or Snow White.

#### PERFORATED TEMLOK TILE

A fiberboard, soundabsorbing ceiling tile. 12" x 12", 16" x 16". Thickness: ½". Lok-Bevel Joint. Light Ivory or Snow White.

#### CUSHIONTONE®

A highly efficient fiberboard acoustical tile. 12" x 12" x ½". Beveled edge. Two-coat washable white paint finish.

#### HARDBOARDS

Patterned, tempered, untempered, and plain panels in a variety of sizes and thicknesses.



## ARMSTRONG'S BUILDING MATERIALS

M-67\* MONOWALL®

A decorative panelboard with a tough plastic finish. Three designs, 27 color combinations. 4' x 4', 5', 6', 8', 10', 12'. Thickness:  $\frac{5}{22''}$ . \* T.M. applied for.

Armstrong's building materials are designed to help you build better houses and to save money, both in materials and labor. The Armstrong name and reputation can make your houses easier to sell. For further information, write Armstrong Cork Company, 1604 Ocean Avenue, Lancaster, Pennsylvania.

APRIL 1953

INSULATING

Enclosed Roll Blankets Enclosed Batts Utility Batts Pouring Wool Perimeter Insulation,

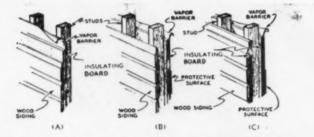
TEMLOK

An asphalt-impregnated sheathing for bracing strength and insulation. 2' x 8', 4' x 8', 4' x 9', ½" and <sup>23</sup>/<sub>2</sub>" thick.

#### TEMLOK

Provides an efficient plaster base. 18" x 48". Thickness: ½". Screen surface. Shiplapped edges with scoop bevel on . four sides.

#### insulating board in farm structures . . .



Three methods of insulating frame walls: (A) One layer of insulating board on outside of studs with or without other exterior finish. (B) One layer of board inside studs, with wood siding or other finish. (C) Two layers, one on each side of studs with wood siding or other finish over outside layer

#### (Continued from page 410)

ulated hand-split shake with sidegrooved face and "invisible" joints; and the hand-hewn type with face side smooth, visible joints, random thickness and rustic appearance.

Lengths are 16, 18 and 24 inches. Shakes are usually designated as 4/2-inch or 5/2-inch, denoting four or five to a two-inch thickness.

#### Asbestos-Cement Shingles

These virtually maintenance-free shingles are fireproof and have high weather resistance. A variety of colors, textures and butt lines are made.

Installation can be over wood sheathing or over gypsum or insulating board with special fasteners. Manufacturers provide backer strips for use behind vertical joints and corrosion-resistant face nails.

#### Aluminum Siding

Features of aluminum clapboard siding include a curved or concave face for extra strength; and springtensioned joint for weather-tightness. The material is produced in individual courses  $77_8$  and  $91_2$ inches wide ( $67_8$  or  $81_2$  weatherexposed) and in standard lengths of 10, 12, 14 and 16 feet.

#### **Insulated** Siding

This siding is imitation brick and stone, backed with insulating board which adds structural strength and heat resistance to exterior walls. The exposed surface is coated with asphalt.

Common sizes are 437/s by 143/s inches. Harmonizing corner pieces are 35/sx25/sx333/4 inches.

#### INSULATION

All building materials such as wood, masonry, and even wide air spaces permit the passage of heat from the interior to the exterior in winter or from the exterior to the interior in summer. This rule also applies to insulation. Insulation never completely stops the passage of heat, but it is manufactured for the express purpose of retarding the greatest possible amount.

#### LOOSE FILL

Various types may be packed, poured or blown into the spaces formed by framing members or masonry. Normally, they are used for insulating existing buildings.

Mineral Wool includes three types of noncombustible insulation known as rock wool, slag wool or glass wool. They may be fabricated into nodules, into batts or blankets.

Wood fiber wool fill includes several insulations made from wood fiber to produce a lightweight fleecy material. These are generally treated to render them flame resistant, vermin repellent and moisture resistant.

Vermiculite is an inert, lightweight, granular insulating material manufactured by exploding an aluminum magnesium silicate mineral, which is a form of mica.

#### **BLANKETS**

Blanket insulations are flexible units more than 48 inches in length and wide enough to fit between studs on conventional 16- or 24-inch centers. This material is manufactured to control thicknesses and either folded in cartons or packed in rolls. It is made of mineral wool, wood fiber, cotton and animal hair. The fibers are either naturally fire resistant, moisture and vermin resistant or are treated to make them so. Thicknesses are generally 1, 2, 3 and 35% inches.

#### BATTS

A number of manufacturers who produce blanket insulations also make batts, using the same raw materials. Batts are 48 inches or less in length and the same widths as the blankets-15 inches to fit between studs 16 inches on center and 23 inches for the 24-inch O.C. studs. The most common thickness for batts is three inches, although they are also produced in one- and twoinch thicknesses. They may be obtained with the insulation completely encased in paper, one side of which is a vapor barrier: with the vapor barrier only on the one side: or without the integral vapor barrier. Some manufacturers provide a nailing flange as part of the vapor harrier

#### **INSULATING BOARD**

Building board is a product for general usage produced in four-foot widths and in lengths from six to 12 feet. Popular thickness is ½-inch, although it is available in thicker grades. It can be used satisfactorily with the natural finish but a number of manufacturers apply various colors to the surface at the factory. When applied, insulating board is usually the finish wall.

Insulating board sheathing is a structural board usually heavier in weight than building board. All of the sheathings on the market today are waterproofed either with an asphalt coating or with an integral asphalt treatment. Insulating board sheathing is supplied in two main size groups— $\frac{1}{2}$ , or  $\frac{25}{32}$ -inch thick, four feet wide, in lengths from eight to 12 feet with square edges, 2x8 sheets,  $\frac{25}{32}$ -inch thick, usually with some kind of tongue and groove or fitted edge joint on the long edges.

#### REFLECTIVE

Reflective insulations, with their bright metallic reflective surfaces, differ from other types of insulation because they depend entirely on their surface characteristics for insulating value. Insulation value is achieved with reflective insulations only when they face a <sup>3</sup>/<sub>4</sub>-inch or larger air space.

#### SLAB

Slab insulations are made of a number of materials in small, rigid units usually one inch or thicker in sizes up to 24x48 or 36x36 inches square. The general kinds are: 1 corkboard; 2—wood fiber and cement; 3—mineral wool; 4—cellular glass; 5—vegetable or wood fiber board.

In home building and light construction the slab insulations are being used at an increasing rate to retard heat loss from concrete slab floors laid directly in contact with the ground.

## American Colonial ASBESTOS SHINGLES



Each shingle is designed as a rigid asbestas-cement strip, covers as much area as 5 individual shingles. American Colonials are self-aligning, nail holes are prepunched. Application is simple and rapid.

The finished roof has the pleasing horizontal shadow line and deep-grained texture desired by so many homeowners.

- ... add character to any home -
- ... wear like stone -
- ... applied like any strip shingle -

You LIFT your houses out of the ordinary when you give them a roof of Johns-Manville American Colonial shingles. These handsome, colorful shingles have the rugged, sturdy and fireproof qualities of asbestos and cement. In addition, they have new styling and striking new beauty. In most areas, the applied cost of an American Colonial shingle roof is lower than any other

Colonial shingle roof is lower than any other *permanent type* of roof you can use. The shingles are readily available nationally, easy to handle, and any carpenter can apply them. Your choice of several attractive colors. For full information write Johns-Manville, Box 60, New York 16, N. Y.





## His only shield was Honor

This was Alexander Hamilton. A man of unflinching principle, he fell before the ambitious Aaron Burr who chose to fire before the signal was given.

Even before the name of Alexander Hamilton became a legend in our land, BIRD had started on the long and rewarding journey toward the respected name it now represents.

Today, BIRD Master-Bilt shingles offer you the highest quality of workmanship and the longest life of any 215 lb. shingle.

- Thick butt construction; two layers of both asphalt and firmly embedded mineral granules give added years of wear where it counts . . . on exposed tabs.
- \* Full line of pastels and traditional darker colors.
- \* Fire resistant-certified by Underwriters' Laboratories.
- \* 215 lbs. working weight protect every 100 sq. ft. of roof.

For more information, write Bird & Son, inc., Dept. AB-4, East Walpole, Mass.



#### keeping moisture out of siding jobs . . .



In applying siding and trim two things help keep moisture out. No. 1 is accurate cutting for tight-fitting joints



No. 2 is proper sealing of all cut ends with priming material, plus caulking and sealing all joints which might give moisture a foothold



alifornia Redwood Asea.

Choice of putty is important. If final finish is paint, use oil putty. With all other finish types use non-oily putty and avoid stains

Products Designed to Cut the Cost of Building \_\_\_\_\_\_ FROM\_CELLAR\_TO\_ROOF

## IT IS POSSIBLE TO BUILD BETTER and SAVE MONEY at the same time



Nova-Vita Horizontal-Sliding Windows are revolutionary—
 offer new advantages for every room.



• Nova Wall and Furniture Units-of many types-give more usable space in less total space.



 Nova Roller Doers – for closets and passageways – are installed in less than 30 minutes.



• Hemasote Big Sheets (up to 8' x 14') save time and labor in the sheathing of roofs and exterior walls.



• Nemasote Underlayment is nailed directly to the rough flooring. No felt or pad is noticed.



• Sheatha and shingle in one operation with Nova Sidewalls and Roofs. Top quality: maximum economy.

• Architect, Designer or Builder . . . we invite the opportunity to prove to you that the products and materials here shown and others in addition—are among the soundest purchases you can specify or make.

Our claim to your attention is based upon three factors ...

(1) We have been selling building materials for the past 43 years—in all parts of the United States—serving, and in continuous contact with, thousands of architects, designers and builders. We know something about your problems.

(2) In one period of our history, we spent more than half a million dollars on pure research—covering a good many problems the average builder or architect has never had the time to explore.

(3) At another period, we were responsible for the construction of thousands of houses —in the fastest time ever accomplished, at the most economical cost.

As a result, each product here offered has been specifically designed and manufactured to be (at least) competitive in installed cost; to be unusually economical in maintenance costs; to outlast and outservice competitive products; to increase the investment value of the house—for morgage or resale purposes; to add materially to the appearance of the house.

Through our representatives—soundly trained—you draw upon tested methods for exterior and interior design, for the scheduling of all construction operations, for setting up either site or factory fabrication, for the coordination of any or all operations. Equally important, you profit further by buying many products and materials from one dependable source.

Currently in American Builder there is appearing a series of articles by Griffith S. Clark of our firm—dealing with many of the most difficult problems currently encountered in the field of home construction. The principles there presented are applicable to residences in every price group.

The coupon below will bring you illustrated, specification material on all Homasote and Nova Products. You entertain no obligation by sending in the coupon.

and the second second second second second second	HOMASOTE COMPANY, Trenton 3, N. J., Department 64C
HOMASOTE COMPANY	Send detailed, illustrated literature on all Homasote-Nova prod Have representative contact us
NOVA SALES SWEETS SWEETS	Nome

tts |

# SOLD! more than 750,000 squares of Cedar Shingle Roofs

## "The only roof that can take it"

#### ... says D. H. Hardman

OUT IN KANSAS where the big winds blow, Dwight Hardman and his father before him have had a wealth of experience in the realm of roofing. Operating a chain of 28 retail yards, their record of sales tops three quarters of a million squares of shock-proof red cedar shingles, and Hardman should know when he says "no other roof material at comparable price can take it."

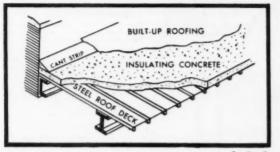
Like so many other lumber and building materials distributors, retailers, and experienced builders, Hardman has learned, through *experience*, that CERTIGRADE red cedar shingles are the best quality roof for the money. Best for protection, best for beauty, best for longer life per dollar of cost.

#### RED CEDAR SHINGLE BUREAU SSIO WHITE BUILDING - SEATTLE 1, WASHINGTON 425 HOWE STREET VANCOUVER, B. C

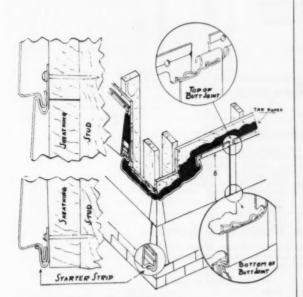
CERTIGRADE

# BUILT-UP ROOFING INSULATING CONCRETE

Two applications of vermiculite insulating concrete. Lightweight aggregates are porous and should be wet thoroughly before use. Usually a larger proportion of fine aggregates because of rough surfaces and irregular shapes of light aggregate particles



Zonolite Co.



## application details for aluminum siding . . .

Aluminum clapboard siding in cut-out installation view. Curved face of material gives added strength, minimizes highlights or wrinkles



"This cheaper roof will save us money"

## This is common sense

Only a fool buys trouble to save money, when everyone knows that a properly applied roof of CERTIGRADE red cedar shingles costs so little more—gives satisfaction for so many *extra* years. You owe it to your customers to tell them the difference.

## This proves it

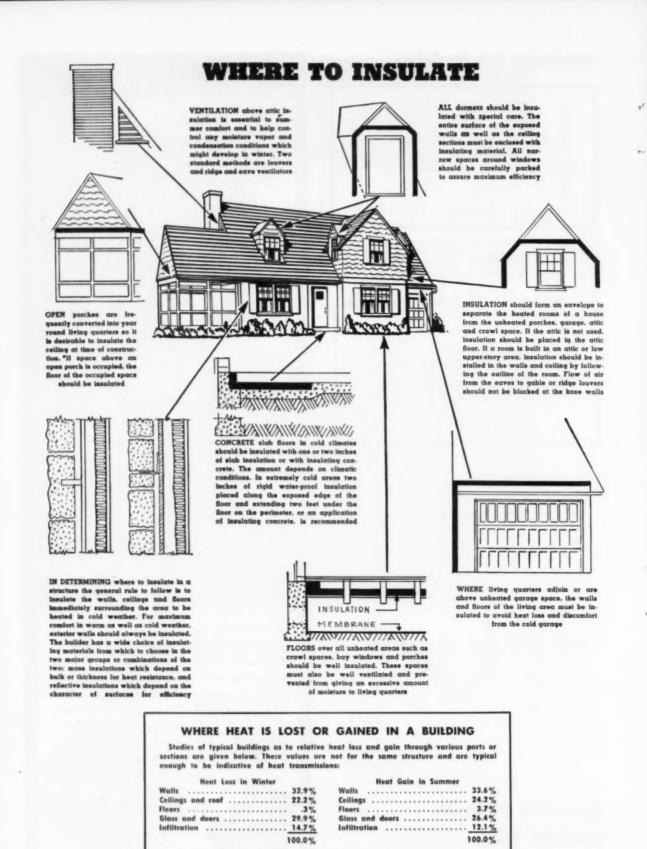
CERTIGRADE cedar shingles, because of their great strength and rigidity, can be applied on *spaced* rather than *solid* sheathing. You can count on saving about half the sheathing materials cost, and much of the cost of sheathing application, when you use cedar shingles. Let us send you a *free* estimating form so that you can accurately check the comparative cost of roof construction *including* sheathing. Your own check,



in your own area, will prove that cedar shingle roofs are your best buy. Write today, ask for "Roof Cost Estimating Form."

RED CEDAR SHINGLE BUREAU 5510 White Building, Seattle 1, Wash. 425 Howe Street, Vancouver, B. C.

APRIL 1953



The above figure: were assembled from studies of typical two-story houses. The percentages would vary somewhat on one-story houses because the ceiling area would be proportionately greater and the wall area less. ۰,

### ... the brand that means business for builders

Ruberoid offers you more than the quality that's built into its products. Ruberoid, alone in the roofing and siding field, has earned the Good Housekeeping Seal of Approval. Millions of people see Ruberoid roofing and siding advertised in The Saturday Evening Post, Household, Good Housekeeping and leading farm magazines. These are the products that help you build better at lower cost and satisfy customer desires.

#### **Color-Grained Siding\***



. . the decoratordesigned, textured ashestos-cement siding that revolutionized the siding market. Now, it has a new sales feature . . Duroc protective finish. Six appealing colors. Patent Nos. 2307733; 2307734, others pending

RUBEROID

#### **Stonewall Board**

. . . the asbestoscement building board that out-performs all other materials for farm use and many industry and home uses, Can be scored and snapped to speed jobs.

#### Shake-Design Roll Siding



. . shake textured mineral-surfaced asphalt beauty, plus lasting fire and weather protection, opens the door to low-cost modernization jobs,

#### ShadoWedge\*



asphalt undercoursing strip that offers a tighter, better sidewall and adds extra beauty to Color-Grained Siding by providing deep shadowlines.

the tapered

†Patent No. 2394379, others pending

#### **Crawl Space Cover**

. . has become a best-seller for use in hasementless houses and "caston-the-ground" concrete slabs. It's required on many F.H.A. jobs.



**Dubl-Coverage Roll** Roofing



... with fully coated sanded selvage. Suitable for cold as well as hot built-up roofing applications. 60 lb. roll meets all specifications.

**Mount Vernon Asbestos Roof Shingles** 



. . offer lifetime beauty, fire protection and economy. Butt lines provide deep, irregular shadows. A bestseller for your quality market.

These are some of the more than 100 Ruberoid products that mean good building and good business for you. For complete information on every type of asphalt and asbestos products to meet all your customer needs, see your Ruberoid dealer. The Ruberoid Co., 500 Fifth Ave., New York 36, N.Y.

The **RUBEROID** Co.

ASPHALT AND ASBESTOS BUILDING MATERIALS

#### **Tite-On Shingles**



. , the original interlocking, winddefying shingle. widely imitated but never equalled in performance and sales appeal. Now available in new pastel blends.

#### **Perfect Balance Thick Butt Shingles**

. . the perfect shingle with extra coating top and bottom for extra weight where it's needed to give thicker butt lines, extra wear and protection.

## for use with RED CEDAR SIDEWALL PRYME-SHAKES



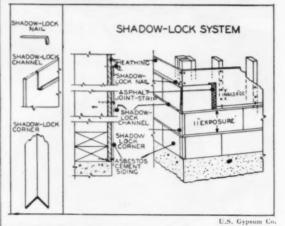
Color sells homes. And here are the colors that sell best ... twenty beautiful deep-tone and pastel shades carefully selected on the basis of home-buyer demand.

Offer your customers their choice of these gorgeous Fynal-Kolors and see how much faster your homes sell.



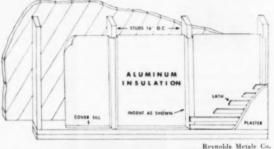
#### lock system for siding . . .

Applying asbestos-cement siding to gypsum sheathing by special locking system. Attachments include corner and horizontal channels and locking nails



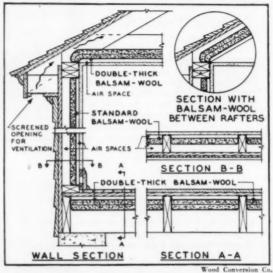
#### insulation between studs . . .

Aluminum reflective insulation bowed between studs; indentation made by running fingers down each side of stud. Install parallel to face of studs, starting with middle stud. Box in and cover sill and top plate



#### applying blanket insulation . . .

Wood fiber blanket insulation is applied in continuous strips parallel with framing members, with spacing flange lapped over inside edge or face: tacked or stapled through flange for fastening until held permanently with plaster base, interior finish or flooring



## Match this kind of backing ... if you can!



#### Barrett offers you the greatest all around promotion program in the Roofing industry!

Barrett provides the hard-hitting support that helps you build greater profits from roofing sales.

Just look at some of the sales aids included in Barrett's promotion program:

- \* Dramatic window and counter displays in full color.
- \* Ingenious 3-dimensional slide films which bring the Barrett shingle line right to customers' eyes.
- \* Newspaper mats and electros for local advertising.
- \* Impressive personalized business stationery and forms.
- \* Permanent and portable samples.
- \* Shingle Buyer's Guides and presentations for show-room and soliciting use.
- \* Mailing pieces and post-cards to arouse potential customers.
- \* Outdoor signs for your buildings and for job use.

... these and many more — all working to bring you customers.

And Barrett support does not stop there! National advertisements make homeowners conscious of the value, both in beauty and protection, of a new Barrett roof. They stress the importance of purchasing from recognized Barrett dealers—for application by Barrett Roofers.

If you are not yet tied in with Barrett—ACT Now! You get greater profits when you handle Barrett—famous for fine building materials for almost a century.

Building your business ... is the business of



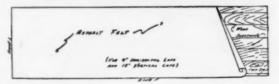
APRIL 1953



## asbestos-cement shingle application . . .

Hoco Suparning (@)

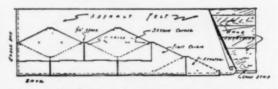
CANT STRIP: Formed after deck has been prepared by applying 1/4x11/2-inch wood lath over wood sheathing along edge of eaves



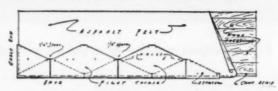
ASPHALT FELT: Cover entire roof deck with asphalt-saturated felt, allowing 4-inch horizontal laps, 12-inch vertical laps and 12-inch laps at all valleys, hips and ridges



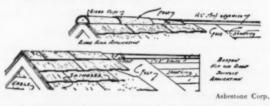
STARTER COURSE: Lift up felt along eave and apply a full size starter shingle to overhang rake and eave 1-inch. Use four nails per shingle, 1<sup>1</sup>/4-inch for new work, 2-inch for re-roofing. Next starter goes parallel to eave with 1/16-inch space between vertical edges of shingles



FIRST COURSE: Begin with half shingle, edges projecting 1-inch over eave and rake. Use four nails per shingle: do not drive nails home. Next apply full-size shingle parallel to eave.



SECOND COURSE: Start at rake with full-size shingle, aligning right hand vertical edge and horizontal shoulder with center of notch in top joint of first course shingle



RIDGE AND HIPS: For roll-type hips and ridges apply 1x2-inch furring strip on edge. For Boston type hips and ridges apply 1x2-inch furring strips flat along both sides of hip and ridge



Plan kitchens for an efficient arrangement of equipment, with ample work surface adjacent to each work center. Sufficient storage space should be located near each major appliance, planned to fit the particular needs and habits of the family—and the cook. Try to keep traffic patterns clear of work areas, and make economical use of any remaining space

S uccessful home builders have long realized that a satisfactory kitchen puts "plus value" in a house offered for sale, reducing sales costs and making the purchaser better satisfied over the years.

### **Planned Efficiency**

Work measurement and methods analysis applied to the kitchen have revealed that half the walking in preparing a meal is between range and refrigerator. Because more trips are made from dining area to kitchen during clean-up than in serving, door to dining area should be close to sink with work space by the sink.

There should be at least 36 inches of work space by the refrigerator on the opening side, 18 inches by the range, and 36 by the sink, preferably divided on either side.

Storage space is calculated in a minimum basis of 6 square feet of wall cabinet for each permanent resident of the home, plus 12 square feet for accumulation and entertaining. Figure one person per bedroom plus an extra person for master bedroom.

Base cabinets should occupy all open space beneath wall cabinets. Actual practice has shown that for greatest efficiency there should be between four and a half and five and a half feet of counter between sink and refrigerator, and between three and four feet between sink and range.

### **Clearance Dimensions**

Clearance of 18 inches is best between counter surface and bottom of wall cabinets. Cabinets above range should have 22 inches clearance. Major appliances are from 24 to 28 inches deep; to clear them, any door opening should be at least 30 inches from the corner. 48 inches clearance for a door next a range is desirable.

The distance between a window opening and a corner should be at least 15 inches because standard flat wall cabinets are about 13 inches

# KITCHEN EQUIPMENT HOME APPLIANCES and BUILT-INS

Planning Kitchens Efficiency Arrangements Modernization Specialties

Kitchen Equipment

Fixtures and Built-ins Cabinets and Sinks Ranges Refrigerators and Freezers Counters and Tops Fans and Ventilating Dishwashers Disposers Unit Kitchens

Laundry Equipment

Washers Dryers Ironers

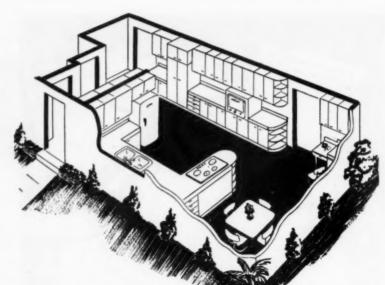
FOR MORE INFORMATION ON PRODUCTS ADVERTISED AND DESCRIBED IN THIS CHAPTER PLEASE USE ONE OF THE PREPARED INQUIRY POSTCARDS IN THIS ISSUE.

# wall cabinet arrangement . . .



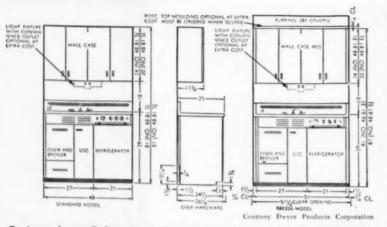
Wood wall cabinets provide convenience for kitchen in ranch type home. Wall cabinets are available from 12" to 30" in width and base cabinets in similar sizes. A wide range of special fixtures adds to efficiency

Long-Bell Lumber Co. Data



Wood wall cabinets are made with either stationary or adjustable shelves to fit the housewife's needs. Special sections are made to fit surface cooking units, modular ovens, above and around refrigerators and counters and other kitchen units

## cabinet unit kitchen . . .



Furring and over-all dimensions and specifications of this unit kitchen indicate the possibilities inherent in such units for application in limited space. Recessed model is specifically designed for installation with building walls adjacent to sides of the unit kitchen. The sink and range top backrail continues around each end, eliminating cracks between work surface and recess walls. in depth. Underside of window sills should be at least 44 inches from floor to provide space for backsplashers.

### **Kitchen Arrangements**

The four basic types of modern kitchen arrangement include the U-shape, the L-shape, the one-wall type, and the corridor layout. The conventional "u" is usually found to be most efficient. Placing the sink under a window on the center wall will save the most steps.

### refrigerator - freezer



Courtesy Nash-Kelvinator Corp.

Two doors open to units with two different temperatures in this 9.4 cu. ft. model combining freezer and refrigerator. Separate controls keep both humidity and temperature at desired levels. Self-defrosting feature of lower compartment is popular with home makers. 28¼ inches wide and 59 inches tall, the unit fits the same space as many older models

AMERICAN BUILDER

1.4

plan an open-plan kitchen in natural birch with

Kitchen and laundry—or kitchen and breakfast nook—can be on intimate terms when you choose one of the *new* Curtis kitchens. Woman-designed, these smart, flush-faced wood cabinets embody 53 beauty and convenience features which women want. Available either in natural birch or finish-coated in white, ready for decoration, they offer you almost unlimited planning flexibility for any size or shape of kitchen. Hardware is furnished and hinges applied.



Woman-Designed

# cabinets

New Curtis Base Island Unit has double doors on both sides so two trays and sliding table are accessible from either side. Center partition in bottom.

The new Curtis Tray Units are available in 9 widtbs with double doors in 24" and over. Suitable for linen or pan storage. All trays dadoed for dividers.





Curtis Companies Service Bureau AB-4, Curtis Building Clinton, Iowa Base Square Corner Unit equipped with new style swing shelves and how the women love them!

Step-saving hanging units have shelves accessible from both sides. Shelves have safety rests and are easily adjustable in height. The new Curtis kitchens were designed, tested and approved by outstanding home economists.

WOODWO

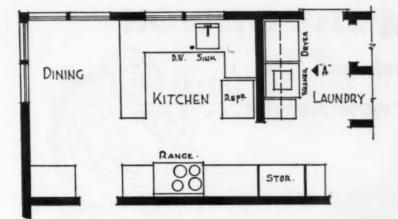
### Get All the Facts for Your File—Mail the Coupon!

Please send booklet on the new Curtis woman-designed kitchens.

Address......State.....

Curtis makes a complete line of architectural woodwork and Silentite windows for homes of all types and sizes. Make your next home "all Curtis."





Plan above and elevation at right show how little space is actually required by modern laundry appliances in fitting up laundry section of modern kitchen-utility plan for ranch type home. Cabinets above equipment provide space for storage of soaps and detergents, laying folded clothing, and storage of overflow items from cabinets in kitchen proper

The "L" must have storage, preparation, cooking, and cleaning work centers in proper sequence to be most efficient. The opposite walls are commonly used for breakfast nooks or laundry areas.

Wiring the kitchen today is most important, as a breakfast involving the use of toaster, grill and electric coffee maker might demand as much as 4,000 watts. If laundry equipment is in the same room, demand loads may be even heavier.

Floor and wall coverings should be durable, easy to clean. Critical Couresy General Electric Co.

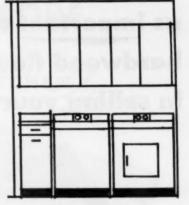
to successful planning is the *exact* measurement of all dimensions so that no odd spaces occur which either require filler units or become dirt catchers.

### Remodeling

Remodeling enables builders to contact new clients, maintain contacts with old customers, and maintain continuous sales promotion activities.

Appliance manufacturers have prepared numerous sales tools and

COUNTER TOP



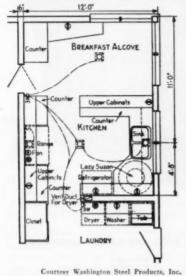
## ELEVATION "A"



planning aids that simplify the process and make sales easier.

In making preliminary sketches, be sure all dimensions are exact; locate water sources and present wiring; note swing of doors that open into room; check heights of window sills and ceilings. Get dimensions of any present appliances that will remain. Check the entire plan carefully with the customer.

# special features in kitchen cabinets . . .



Convenience in this kitchen is increased

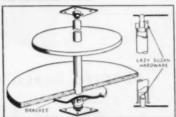
with metal drawers, sliding shelf hard-

ware for mixer shelf, spice and package

shelves, revolving corner unit, and ac-

IBACK HANGEB

Sliding door hardware such as this makes an easy task of constructing special units such as the Fade-Away mixer shelf and other convenient units



The "lazy-Susan" revolving corner unit is easily accomplished with this economical pivot hardware. A large ball bearing carries the load and insures smooth operation



Courtesy General Electric Company

Picture of installation shown in elevation of plan above, showing how cabinets and efficient equipment layout make laundryutility area easy to keep clean and orderly

APRIL 1953

cessible towel storage

# as important as hardwood flooring in selling your new homes

# FASCO Ceil-n-Wall ENTILATING FANS

FASCO Ventilating Fans' quieter, power-plus performance can make your homes more salable. Value-wise, sales-wise . . . they're as important as hardwood floors. Customer-preferred Fasco Ventilating Fans add a real sales punch! Every Fasco Ceil-N-Wall Ventilating Fan you specify proves you build extra quality houses.

### EXCLUSIVE FASCO TURBO-RADIAL IMPELLER



You Need

Heart of the Ceil-N-Wall. Impeller is designed to deliver exceptionally high air volume through long ducts and elbows and against high static pressure. Impeller disc and baffle plate prevent air recirculation. Extremely quiet in operation.





O FOR EVERY VENTILATOR INSTALLATION





MANUFACTURERS OF THE ONE COMPLETE LINE OF VENTILATING FANS 428 AMERICAN BUILDER



# The strongest seller through lumber dealers in kitchen cabinet history

One look at this four-color, beautifully printed folder—and other new Long-Bell literature—and the lady of the house will immediately see herself in the picture. The picture: Long-Bell cabinets of her choice in her kitchen!

This new literature, which is part of Long-Bell's Kitchen Cabinet Merchandising plan, will prove one of the most effective sales tools you've used in a long time. These books describe to your customers all the Long-Bell cabinet features; explain the three-inch units of measurement for a fit without "fiddling around"; show different finish arrangements.

It will mean sales to you to point out to potential customers the low cost and versatility of Long-Bell cabinets. Wood cabinets mean less kitchen clatter.

The homeowner has complete range of decorating schemes. Beautiful rift grain wood can be had in natural finish or painted in color.

Let us send you samples of this new "selling-toolpacked literature." Get all the details of the complete Long-Bell Kitchen Cabinet Merchandising Program. Use the handy coupon below.

# The Jong-Bell Jumber Company

### EASTERN DIVISION . KANSAS CITY, MO.

LUMBER—West Coast Douglas Fir, Hemlock and Cedar, Ponderosa Pine, White and Douglas Fir, Southern Pine and Hardwoods.

FACTORY PRODUCTS-DOUGLAS FIR: Quality Frames, Industrial Cut Stock, Doors, Kitchen Cabinets, Unpainted Furniture, Prefabricated Building Stock. PONDEROSA PINE: Quality Frames, Industrial Cut Stock, Sash and Doors, Glazed Sash, Box Shook . . . Varied Products.

PLYWOOD-Douglas Fir and Ponderosa Pine.

OAK FLOORING—PRESERVATIVE TREATED PRODUCTS: Woods, Posts, Poles, and Piling treated with Creasote and Standard Salt Preservatives.

#### FABRICATED TIMBERS

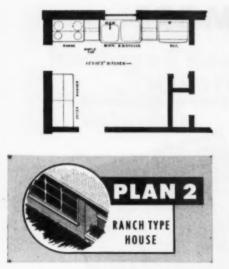
APRIL 1953

### ESTABLISHED 1875

WESTERN DIVISION . LONGVIEW, WASH.

LONG-BELL LUMBER C	 Dept. O
Longview, Washington	
We would like to know more a Long-Bell Kitchen Cabinets, Plea	
ADDRESS	

429



Doors of both base and wall cabinets are hinged for greatest convenience for access to storage space in this modern kitchen layout. Rolling door cabinets hang under conventional steel wall cabinets to add convenience to storage of small items. Wall cabinets mounted above laundry appliances provide necessary work and storage space for that activity

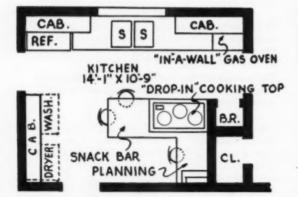
### steel kitchen layout . . .

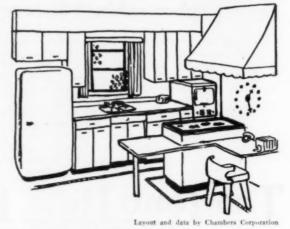


Layout by Mullins Manufacturing Corporation

Kitchen plan for No. 2 ranch type home provides generous work and storage space. Combination dishwasher-sink has food waste disposer. Note work area adjacent to opening side of refrigerator

# ... built-in ovens and cooking tops





Drop-in cooking top and in-a-wall oven are features of this kitchen plan for No. 2 ranch type home. The convenience of peninsula snack bar to cooking top highlights the flexibility of arrangements possible with these fixtures for decentralized cooking. Heavy insulation built into the oven is the basis of "retained heat" cooking which makes for fuel economy. Dropin cooking top fits into a waist-high counter top, where wide work surface increases efficiency

Double built-in cooking top in an island arrangement with oven mounted on base cabinet next to the sink is a feature of this modern kitchen in the home of L. T. Kagawa, Honolulu. Cabinets in kitchen at left by Tracy





Courtesy General Electric Company

Local codes and good sanitary practices must be observed along with manufacturer's instructions in installation of waste disposers. Typical drain connections for GE Disposall, above, show unit installed with dishwasher not equipped with a drain pump assembly. Drain line from washer should enter branch drain from top. 11/2" is minimum drain pipe size from waste disposer.

APRIL 1953

USE ONLY DRAINAGE

desired.

INC.

DOUGLAS CRESTLYN

INTERNATIONAL

WRITE for literature.

State quantities and

approximate delivery

date if quotations are

for efficiency

kitchens



Charles Kibel, Builder

Henry Kibel, Architect

"For Smart Styling and Tenant Appeal we specify KELVINATOR every time"

**The plans** for these two great projects have just been completed by Henry Kibel. His father, Charles Kibel, is ready to begin construction early this spring.

Both projects have been planned for maximum tenant appeal. That's why, when it came to specifying refrigerators, the Kibels' choice was the same as it has been for twelve years—Kelvinator. Henry Kibel puts it this way: "Kelvinator packs a lot of



features and space cubage into an expertly-designed cabinet. One of the new models we've ordered provides 9 cu. ft. of storage space in a cabinet only  $28\frac{1}{4}$ " wide. All this space together with the full-width freezer and shelves in the door appeal strongly to tenants. And the Kelvinator name in the specs is a great help, too."

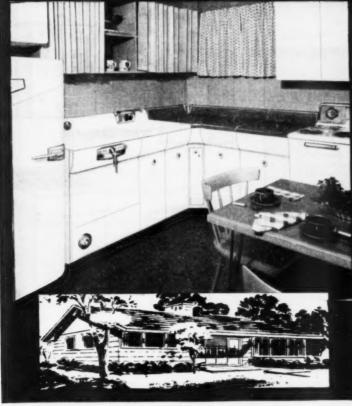
Before you order refrigerators, make sure you check into Kelvinator first. For full information on refrigerators—and all other products in Kelvinator's expanded new line—write Dept. AB-4, Kelvinator, Division of Nash-Kelvinator Corporation, Detroit 32, Michigan.

AMERICAN BUILDER

One of the many fresh, functional features found in the new Kibel projects is the "pass-through" which links the kitchen to the dining area in a delightful, practical, but unobtrusive way. Note the handiness of the refrigerator and range to the serving counter, as shown in this architect's sketch.

IT'S TIME TO GET IS CLAUBLE CONCENTRATION DE YEARS AHEAD! Division of Nuch-Kelvinetor Corporation, Detroit 32, Michigan Refrigerators • Ranges • Freezers • Water Heaters • Washers & Ironers • Kitchen Cabinets & Sinks • Garbage Disposers • Room Air Conditioners

# LOOK! COMPARE! See Why Gunnison Homes Use Anorican Kitchens



Builders of the famous Gunnison Homes know how important the kitchen is in selling their homes. That's why they use American Kitchens.

Here is the kitchen that women want most, the kitchen that helps sell homes faster! Superior construction, heavier gauge steel, expensive sound-proofing, and exclusive bodycontour design are some of the many features that save hours of kitchen work. Why don't you find out what American Kitchens can mean to the salability of your homes! Compare construction, design, work-saving features... and then choose American Kitchens!

#### LOOK-COMPARE FEATURES LIKE THESE:

bowl.

drawers that clean as

easily as wiping out a

5. The American Kitchens

Roto-Tray Dishwasher,

the most modern dish-

washer on the market

today, washes dishes 3

times cleaner.

1. Easy-to-clean, smooth surfaces with no dirtcatching handles.

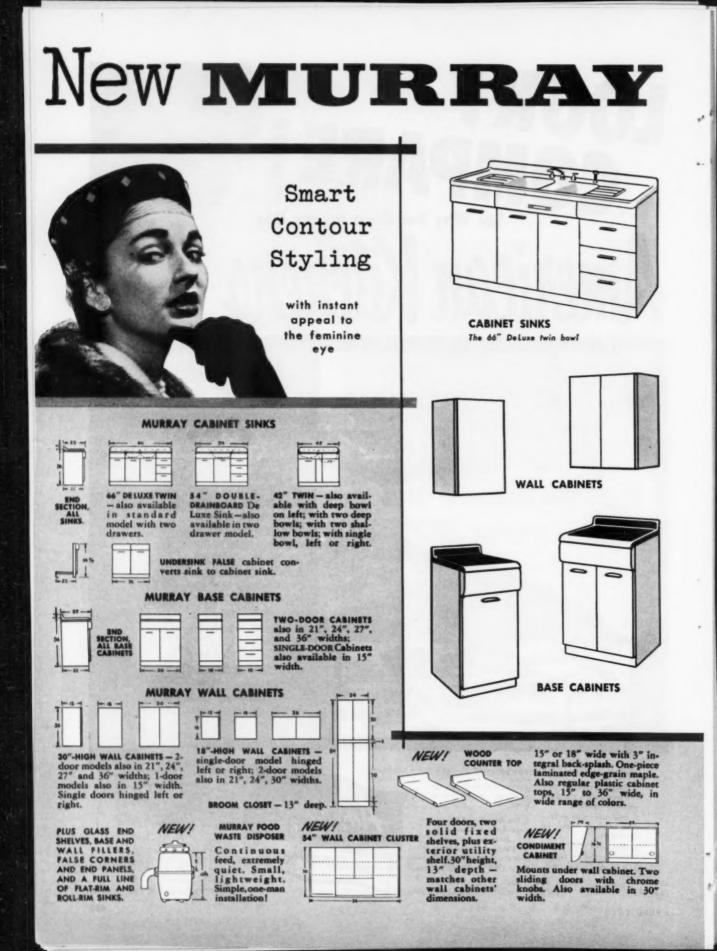
2. One-piece tops of lifetime vinyl, no seams to catch dirt.

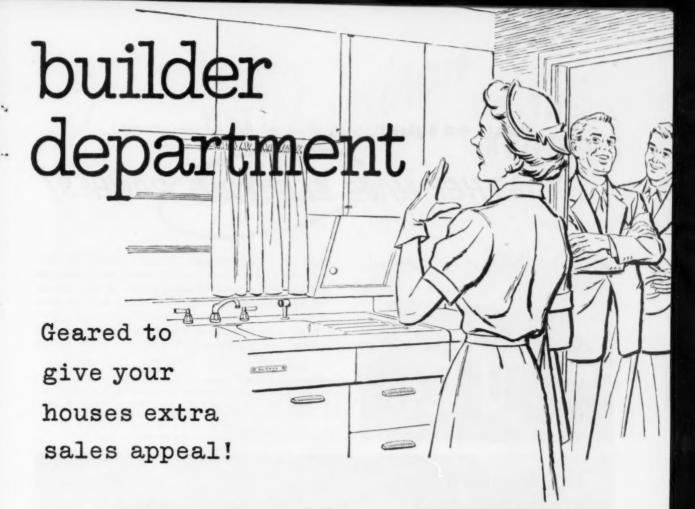
 Sink bowl 15% larger -- no dirt-catching ledge.
 Rounded, one-piece

AMERICAN KITCHENS (AVCO) CONNERSVILLE, INDIANA



American Kinchens AVCO Manufestrums Cerri Consultation of the co





### Builders across the country hail new program of co-operation in planning, promoting and pricing Murray kitchens for new construction.

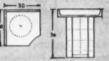
Murray's new Builder Department is staffed by men of sound practical experience. Headed by the well-known C. J. ("Phil") Filson, these experts can really do a job on a builder's planning and selling problems. Depend on them to come up with a winning answer!

Builders can turn to these able Murray men for real help in planning outstanding sales appeal for small space and limited budget-for aid in getting out the right promotional material on a building project, large or small-and for co-operation in speeding the supply and streamlining the price of Murray kitchen units.

See-compare-the Murray line before you decide. In styling these modern beauties we've taken to heart the popular slogan "Never underestimate the power of a woman." You've got to sell a woman if you're going to sell a home-so send coupon today and see what an edge Murray gives you in style and sales appeal!



"LAZY SUSAN"	NEW! "LAZY SUSAN"	The Murray Corporation of America
BASE CABINET	CORNER WALL CABINET	Home Appliance Div. Sales Offices, 7700 Russell, Detroit 11, Michigan
		Please let me know in detail how the Murray Builder Dept. is geared to help me.
		Name
	Three 201/2"-diameter	Firm
201/2"-diameter g shelves with	revolving shelves with vertical flange at outer edge, 15" door. Also	Address
flange at outer micircular door ited on shelves.	available: corner wall cabinet with fixed shelves.	CityZoneState



NEW

Three revolvin vertical edge. Se is mou SMALL OR SUMPTUOUS\_they're alike in one respect ...





One house shown here sold for under \$10,000. The other was in the upper-income class. But both had what all types of home buyers want—*Electric* Ranges in the kitchen. They've learned that cooking electrically is both economical and easy, and assures a clean, cool kitchen. No matter what the size or cost of *your* houses, one item of equipment that will really help you make them sell is the *Electric* Range!

According to Mr. Joseph P. Lenny, who built this small home in Runnemede, N. J. (he sold 25 the day he opened his model house)— "In my experience, most home buyers can't resist an all-electric kitchen. And the kitchen can't be all-electric without an *Electric* Range. Although my homes are moderately priced, I offer this plus item and it helps me stay ahead of the field."



Mr. Herry LeVelle, builder of this large home in Chevy Chase, Md., says, "90% of my home sales are to women who love the all-electric kitchen. They want to work in such a kitchen, although you might think that homemakers in such families would not be doing their own work."

Among the appliances that help the homemaker to achieve gracious living in the Chevy Chase home is the modern, automatic range, and—of course, it's ELECTRIC! Mr. LeVelle, the builder, is convinced that the electric kitchen is his greatest sales factor.



More Builders Every Day are Installing



ELECTRIC RANGE SECTION National Electrical Manufacturers Association 155 East 44th Street, New York 17, N. Y.

ADMIRAL • COOLERATOR • CROSLEY • DEEPPREZE FRIGIDAIRE • GENERAL ELECTRIC • GIBSON • HOTPOINT KELVINATOR • MONARCH • NORGE • PHILCO WESTINGHOUSE

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TH/S

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all the cabinets...all the accessories...all the gadgets needed for any kitchen job!

Colors and wood grain finishes Standard cabinet sizes 12" to 72" Custom units made to measure

# HARRISON IS A quality LINE

contemporary design...superior construction and finish demanded for luxury kitchensl

One-third heavier weight steel Radius edges Nylon roller drawers Spring hinges Sound insulation

# HARRISON IS A COMPETITIVE LINE

the deluxe custom-type features required for modern interiors...at standard prices!

Priced for middle-income bracket
 Special-purpose units standard priced

STANDARD cabinets in COLORS

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Steel Cabinets



THIS

### AVAILABLE IN THESE COLORS AND GRAINS

sunrise pink	natural oak
spring yellow	umber oak
elf green	natural birch
bonnie blue	knotty pine
mist grey	colonial maple
favorite white	grey oak

SEN Horrise 4708 Chicog	W	e	5	-	-	1	fi	C		k	H	n		•			L	J	F	2	(	0	)	1	1		1	1	1	(		1	V	N	/!	!
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City																																			L	





# The World's Most Modern Kitchens





000 000

### Planned and built by one of the World's Largest Steel Companies

• It's new. It's big! It has selling power for you. Republic Steel kitchens offer you the industry's greatest selection of matching cabinet styles and sizes. You use economical standard cabinets to give your kitchens a house-selling "custom-made" look.

All-steel construction means standardized units all ready for fast installation. You just uncrate and install. No on-the-job cutting and fitting. No painting, ever.

It's the greatest kitchen value on the market... with new styling, new features ... new ideas ... new everything. All backed by dynamic new sales programs that are worthy of the big name it bears. Get all the facts now. Write: Berger Manufacturing Division, Republic Steel Corporation, 1022 Belden Avenue, Canton 5, Ohio.

### IT'S THE NEW BIG NAME IN STEEL KITCHENS

REPUBLIC STEEL

Kitchens





For Smart Appeal and Permanence include ELKAY Lustertone, the only sink include ELKAY Lusterione; the only sink guaranteed to outlast the home in which it's installed. The sterling beauty of *Lustertone* is an unmistakable mark of quality that reflects confidence in the builder—inspires a buying urge in every prospect. Find out about the new low prices on Lustertone stainless steel sinks-see just why it's an investment in sales appeal and permanent satisfac-tion you can't afford to leave out of your plans.

### For Color-Convenience-Economy

you can count on ELKAY Duratone, the all-new sink and cabinet top that com-bines colorful beauty bonded FORMICA with a permanent, rustproofed steel core. Custom-built in any size and shape-furnished with or without fa-mous Lustertone sink bowls, or finished to combine with any sink. For the first time ELKAY brings you the economies of a factory-fabricated Formica on steel top with a guaranteed bond. Design better kitchens with Duratone.

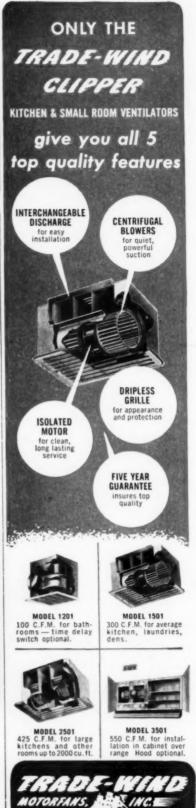


one tops are guaranteed and will be made up in any size any plan—with or without sink bowk. Priced competitively lift for superiority. Public acceptance of the ELKAY name, ar with consumer adventising support, brings you another yet built for sup together with co touborg blos

Write for literature and prices on both lines.



1864 S. 54th Avenue • Chicago 50, Illinois The World's Oldest and Largest Manufacturer, of Stainless Steel Sinks



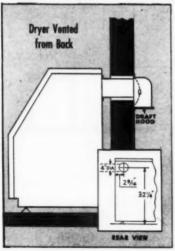
5705 S. Main Street, Los Angeles 37, Calif.

AMERICAN BUILDER

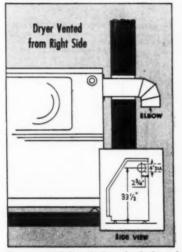
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## three ways to vent clothes dryer . . .

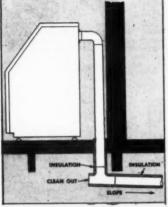
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Dryer in inside room is vented through floor. Vertical duct is insulated, as is horizontal duct which drops towards outside wall

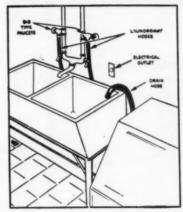


Dryer vented directly from back through wall has vent pipe attached to flue collar adapter

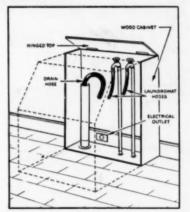


Similar venting from side of dryer has insulation around vent pipe where it passes through wall Westinghouse Data

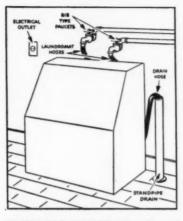




BASEMENT INSTALLATION with double laundry tray has hose connections from hot and cold water lines

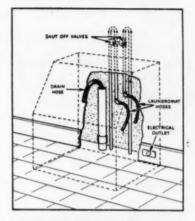


BUILT-IN INSTALLATION has pipes concealed in wall for hose connections and drain hose



STAND PIPE INSTALLATION has hot and cold lines running to hose connections with stand pipe drain for drain hose

Westinghouse Data



CONCEALED INSTALLATION has wood cabinet built around hot and cold water pipes and standpipe drain to improve appearance



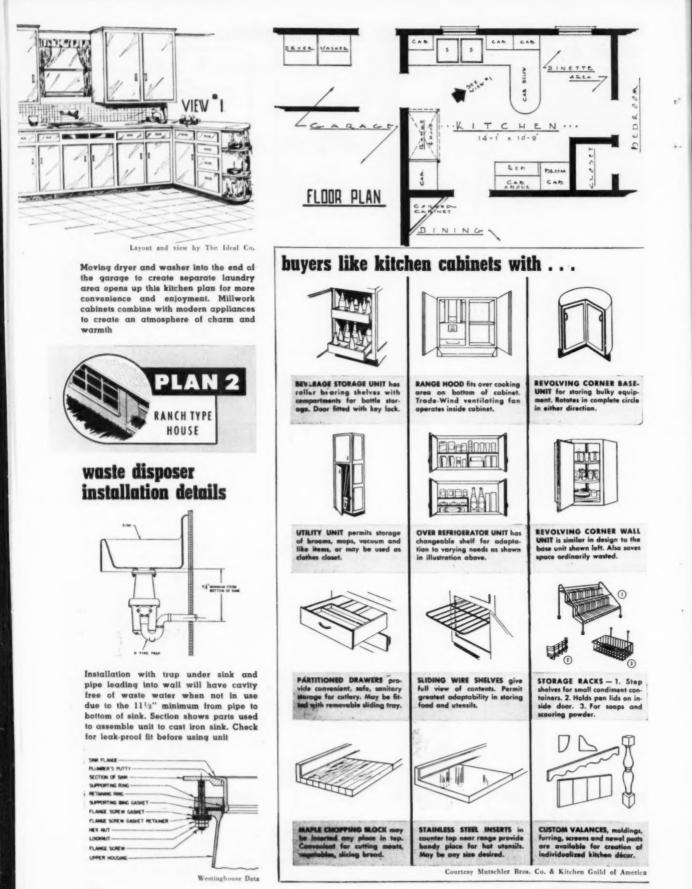
Courtesy Maytag Company

Dutch Oven gas range features divided top, center oven, cabinet base, oven thermostat, and flush-to-wall construction. Additional features optional include cooking well, automatic oven lighting, oven window, lamp, drip trays



Nash-Kelvinator Photo

30-inch range has extra-large oven, sevenstage heating units for surface cooking, automatic clock and oven control with preheat cutoff. Electric appliance outlet, top floodlight and full width utensil drawer are also standard features



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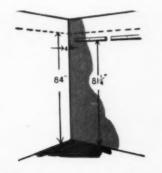
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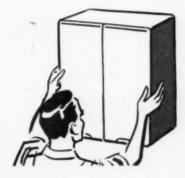
442

Attach cabinet hanger bars to 1 studs with wood screws. Use chalk line 811/4" from floor as guide to line up bottom of hanger bar

۰.,

Hold cabinet against wall with top about 3" higher than the hanger bar. Let cabinet slide down to engage flange of hanger bar





ROLLER BEARING SHELVES pull

out for easy access to utensils. Operate at the touch of a fim ger, even when fully loaded.

TOWEL DRIER has self com

tained fan that dries towels fresh and sweet. Similar non-fan space may be provided.

BREAD AND FLOUR BINS ore

FOOD WASTE CONTAINER for

hans without garbage dis-al unit. Fits under sink; lid

with door. Lift-out pail.

cept for front. Mois proof. Fit any base unit that has deep drawers.

etal in

cabinet features buyers look for . . .



CONTINUOUS TOPS of onepiece may be had in a variety of shapes and coverings. No crevices to collect dirt or food.



HIDEAWAY MIXER UNIT hos an ingenious lift-up shelf that permits instant use of mixer, out-of-sight storage.



CRISPER UNIT for use with gas operated refrigerators. Utilizes exhaust heat to keep careals, crackers, etc. crisp.



SLICING BOARD may be pro-vided in any unit over 18" wide to give extra cuttin surface



SLIDING TABLE extends from cabinet to provide sufficient eat-ing facilities of two persons, or extra counter space.



TRAY BASE permits filing of serving trays on side or end. Also cookie sheets and similar odd-size equipment.



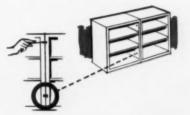
VEGETABLE BIN provides ventilated storage for fruits and vegetables that do not need refrig eration



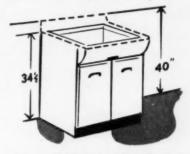
SLIDING PAN RACK holds pets. uns and skillets in easily ac-ssible manner. Especially concassible o oking and

Courtesy Mutschler Bros. Co. & Kitchen Guild of America

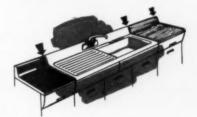
# ... how to install steel cabinets



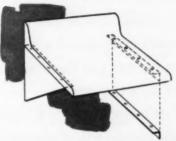
For tight fit and even distribu-3 tion of load bolt cabinets together. Check for level, top of cabinets 84" from floor. Drill two holes in adjoining side panels as far front as possible



Install base cabinets. Fasten to wall. Remove drawers and bolt and bolt cabinets together with stove bolts together in same fashion and also onto sink base



Remove end cap from side of 5 vinyl top which fits adjacent sink and attach sink-to-counter sealers to it and to left side of maple top. This makes water tight joint when caulked and fitted into place. End cap removed from right of vinyl to top fits onto right of maple top



Crosley Corporation Data

Counter top over serving cart is fastened to the sink cabinet with an attach channel, and supported on the left by a support bracket

# **KANSAS CITY BUILDER MAKES THE**



They line up to buy Ruskin Heights homes in Kansas City. These houses-costing only about \$10,000-feature many "luxury" items like Crosley Kitchen equipment.

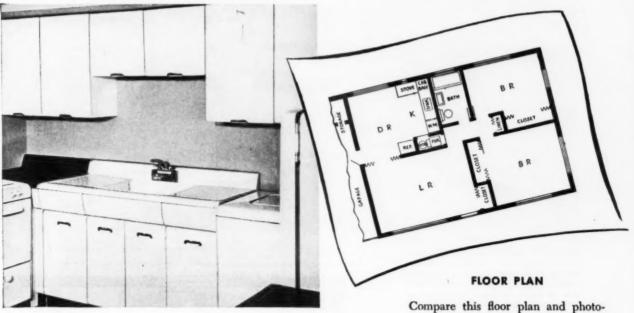
**Mr. Stapley Praver** of Praver & Sons, one of America's foremost builders and builder of Ruskin Heights, a development of 2,000 homes, knows the sales value of a complete kitchen in your homes. Praver & Sons' other building projects have already won them national fame.

A Crosley-equipped Kitchen can be an effective sales aid for any builder, according to Stanley Praver. The kitchen is one of the first rooms prospects want to see in a new home. And a well-designed kitchen, completely equipped with brand-name appliances, can put them in a buying mood right from the start.

That's why a Crosley Kitchen makes such a difference in selling a home! Mr. and Mrs. Prospect know Crosley as a pioneer in styling and as a leader in kitchen design and engineering. And prospects are really impressed when they learn that the Crosley Kitchen can be included right in their mortgages. This way, they can have a home already complete with Crosley appliances without the usual high short-term payments. That's a real sales help.

Take a tip from Stanley Praver! Prove to yourself how easily Crosley products can be installed in your homes and what an outstanding sales job a complete Crosley Kitchen can do for you. Make a Crosley Kitchen your salesroom.

# "CROSLEY ROOM" HIS SALESROOM!



Here's the salestoom in the Ruskin Heights homes. This beautiful kitchen is designed for care-free living. The Crosley Sink and Wall Cabinets supply more than ample working space and convenient finger-tip storage.

graph of the spacious kitchen. See how Crosley can give such "big-kitchen" advantages to fit any amount of space you may have available.

# "LUXURY" CROSLEY KITCHENS CAN HELP SELL YOUR HOUSES!

You equip your homes with star salesmen when you equip them with Crosley products. The famous Shelvador® Refrigerator, for instance, gives prospects more refrigerated storage space than other makes. The Crosley Electric Ranges offer such sales advantages as two-area heating in the range units and completely automatic ovens. Crosley Sinks come in a number of sizes for any wall or floor space. And Crosley Base Cabinets with vinyl-on-steel tops supply you with plenty of work space in the most compact kitchens.

And remember, Crosley will help you plan your kitchen. Let Crosley's expert kitchen planners help you add sales-appeal to your new homes.

	For	More	Info	rmation		
Clip	and	Mail	this	Coupon	to:	

Builder Sales, Dept. AB-43, Crosley **Division, AVCO Manufacturing Corporation** 1329 Arlington Street, Cincinnati 25, Ohio

Please send comple	te information on all Crosley products
to:	
Name	
Company	
Address	
City	ZoneState

CINCINNATI 25. OHIO

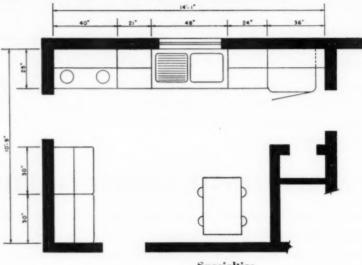
SHELVADOR® REFRIGERATORS . SHELVADOR® FREEZERS . ELECTRIC RANGES . RANGE AND REFRIGERATOR PANTRIES . AUTOMATIC DISH-WASHERS . ELECTRIC WATER HEATERS . ELECTRIC FOOD WASTE DISPOSERS . SINKS . STEEL KITCHEN CABINETS . VINYL-ON-STEEL CONTINUOUS COUNTER TOPS . HANDY ACCESSORIES . TELEVISION . RADIOS . ROOM AIR CONDITIONERS.

DIVISION



Layout and rendering by Crosley

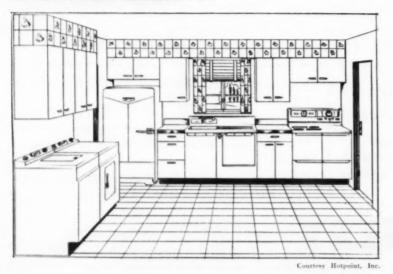
Cabinets in this all steel kitchen have welded construction. bonderized, baked enamel finish. Slight outward bulge of cabinet tops above doors makes knee room to stand and work, and recess at bottom makes toe room. Counter tops are vinyi plastic cemented to 18 gauge steel





PLAN

NCH TYPE HOUSE



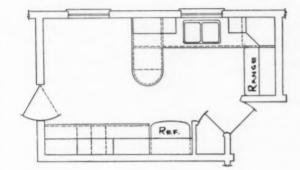
### **Specialties**

Special features of modern kitchens include under-cabinet lighting of counters, ornamental valances that conceal lighting over sink or range, special wall shelving for condiments and small items, planning desk for the housewife, sewing machine installed in laundry area in regular cabinet, and decorative treatments of window sills.

Ranges and sinks may be arranged in island or peninsula fashion, combined with snack bar or breakfast nook or other features. Sliding door cabinets, additional (Continued on page 448)

Keeping laundry set-up within the kitchen area to save steps and ease plumbing installation, this suggestion for No. 2 ranch type home incorporates a full range of electric appliances with modern cabinets in an efficient layout. Not shown in view is suggested breakfast nook in right-hand corner of room

AMERICAN BUILDER



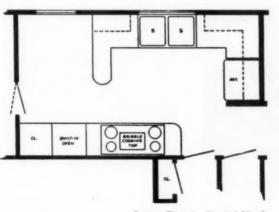


## cabinets in natural wood . . .

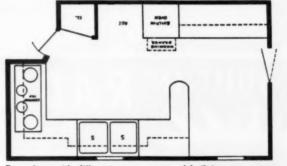
Natural wood finish enhances the charm of these cabinets, built to contain the new built-in ovens and cooking units of leading manufacturers. Featured in this layout is a base cabinet for storage of electric food mixers and accessories. Drawers are aluminum. Doors have silencers. Shelves are permanently mounted for secure load carrying



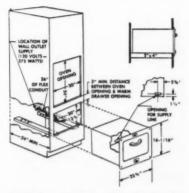
built-in oven installations . . .

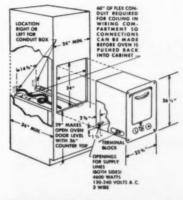


Courtesy Thermador Electrical Mfg. Co.

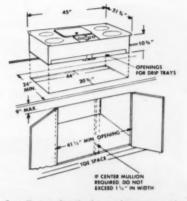


Two plans with different arrangements of built-in oven, warming drawer, and cooking top with griddle show something of the flexibility of layout possible. Compact arrangement of cooking units in griddle top greatly increases cooking capacity of unit. Top element in oven is used for infra-red broiling





Rough-in and installation details for built-in oven. Note two lengths of 2"x4" to support oven. These must be level, flush with opening Warming drawer has similar framing, has thermostatic control to protect contents against overheating. May be used as storage drawer also



Installation details for cooking top with griddle. Secure rough in box to counter top with screws through holes provided in edges of box

### APRIL 1953



(Continued from page 446) backsplash protection, and a host of special purpose cabinet fixtures make up a wide range of possibilities which the builder may draw upon to satisfy his customer.

### **Built-ins and Fixtures**

The choice between snack bar or breakfast nook will be dictated by space available and family preferences. The snack bar may be combined with overhead cabinets, giving the illusion of more space. The built-in breakfast nook is usually more expensive, requires more space, but provides more luxury.

### **Cabinets and Sinks**

Modern kitchen cabinets of wood or metal, designed as integrated units that harmonize with sinks and major appliances, are available in a wide range of stock sizes and shapes. The "custom look" may be had at relatively low cost.

Custom-fit counter tops are frequently installed over stock cabinets. giving a large area of work space free of cracks and joints.



The sink is the unit around which most of the cabinet layout is planned. Most modern sinks are either built into cabinets or designed to be installed in cabinets at the site. Mixer faucets with spray attachments are virtually standard equipment.

### Ranges

Improved finishes, insulating materials, and modern design in both gas and electric ranges have kept pace with other advances in kitchen equipment and appliances.

Sizes range from small four burner units with underneath oven to 8 burner models with two ovens and two broilers. Other units are of modular construction which permits ovens and broilers to be built into cabinet units at various points in the kitchen, with surface cooking units in still other locations.

### Washers

The automatic washer is now a "normal" rather than an unusual installation in a home laundry. Such equipment will require a single laundry tray, while the non-auto-matic machines and double laundry trays to facilitate rinsing operations. Plumbing should be roughed in to provide water and drainage lines, following codes relative to connections to waste lines.

### Drvers

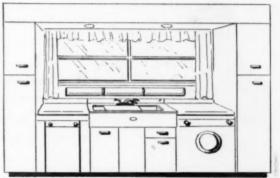
A number of manufacturers now provide a wide range of choice in compact, safe, and economical gas and electric dryers. While some locations permit venting of the moisture into the room, normal procedure requires venting to the outside to prevent excess moisture injuring plaster or woodwork.

### Ironers

The addition of an ironer to the washer and drver rounds out the equipment of a modern home laundry. They may be of the rotary or flat press type, and come in a number of sizes to fit family needs and customer's preference. Some have cabinet type lids of their own, and others are built for cabinet installation with other kitchen and laundry cabinet units.



Layout and plan by Tracy Manufacturing Co.



Arrangement of food preparation and laundry areas in this plan provides for good lighting and ventilation. a minimum of steps, and relative freedom of work areas from traffic through the room. Breakfast area is designed to provide pleasant feeling of leisurely living

LAUNDRY AREA WITCHEN W

# luxury kitchen for gracious living . . .

Efficient arrangement of kitchen equipment in this plan makes for efficient operation of food handling and laundry tasks while retaining the spaciousness of luxury living. Unusually large room areas make greater distances to walk, but compact equipment arrangement by task grouping makes for economy of time and effort

Courtesy General Electric Company

Food preparation center in this kitchen plan provides ample work space on both sides of sink and adjacent to opening side of large refrigerator. Window over sink is preferred by most housewives



Cooking center has ample work and storage space for handling utensils and serving from stove to dishes. Freezer, visited less often than refrigerator, is out





of the way yet near convenient counter space

Plenty of light in this process-line laundry arrangement. Automatic washer, dryer,



and ironer are integrated with base cabinets and wall cabinets to provide necessary storage and work space for laundry operations



### 1) Mr. Hendy of Cincinnati, Ohio, talked to builders from many states.

He questioned outstanding builders; asked them what was *really* behind their phenomenal sales of houses.

### 2) He came back feeling very certain that the installation of the General Electric Kitchen in his new houses would really help to sell them fast.

He found that women *want* the General Electric Kitchen in their new homes. He discovered, too, that this trump selling-feature cost the home-buyer only about \$3.45 per month extra on monthly mortgage payments.

# <sup>(3)</sup>His judgment was right He sold 64 houses equipped

Here is Mr. Hendy calling back on one of his new homeowners. Mr. Hendy is convinced more than ever—that it pays to install General Electric equipment.



"Pleased as punch with my new G-E Dishwasher," says Mrs. T. J. Radley, 1153 Morado St., Cincinnati, Ohio, "The dishes are cleaner than I can wash by hand, and G-E Disposall<sup>®</sup> is out of this world. No more garbage for us!"



"There's so much room'in my new G-E Refrigerator, and with four children, I certainly need it. I'm glad it's a General Electric Refrigerator, too, because it's a brand I know I can depend upon year after year."



"Look at my wall and you can see how clean cooking by electricity really is. This G-E Range is *wonderful*. Heats up fast, too. And to think that all these G-E appliances are costing us only about \$3.45 a month extra on our regular mortgage!"

AMERICAN BUILDER



View of builder Hendy's Price Hill development. These moderately priced homes are all equipped with General Electric Kitchens.

# with G-E Kitchens in 60 days

-before even one single foundation was completed!

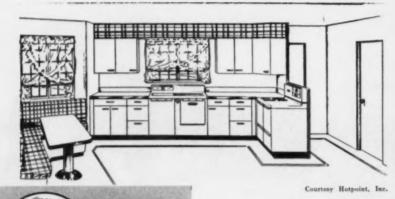
Think about this a minute. Mr. William F. Hendy, builder of Arcose Company Houses in Price Hill, Cincinnati, Ohio, took a tip from the pages of other successful builders—and sold his houses in record time.

And, we say YOU can, too . . . when you install the G-E Kitchen-Laundry.

**Two reasons why:** First of all, women *prefer* General Electric appliances to any other brand. A 1951 survey shows that 55.7% of the people interviewed believe that G.E. makes the best appliances for the home. Second: A G-E Kitchen-Laundry can be built right into houses in the \$10,000 or \$12,000 price range —and the monthly cost to the homeowner may be no more than that for a typical telephone bill, because under modern home-financing the cost of these dependable appliances can usually be included right in the regular mortgage.

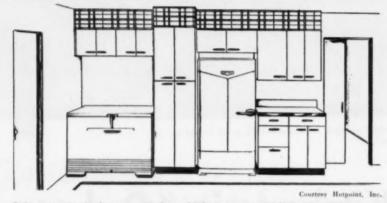
Start selling your houses faster, just as many other builders are doing from coast to coast. See your local G-E distributor or write to the Home Bureau, General Electric Company, Louisville 2, Kentucky.





PLAN 4 LUXURY RANCH TYPE HOUSE

Dishwasher sink beneath window: electric range moved out to establish traffic corridor between kitchen, laundry, and rest of house; and coloriul built-in breakfast nook are highlights of this suggestion for the luxury ranch home kitchen. Partition to height of backsplash backs up range and corner cabinets



Refrigerator in the luxury ranch home kitchen opens towards ample counter space above built-in cabinets for food and utensil storage. Valance above cabinets is designed to match upholstery of breakfast nook. Counter space is convenient to dining room for serving and easing removal of dishes after the meal

### **Refrigerators and Freezers**

More efficient insulating materials and smaller power units have increased capacities of refrigerators without adding to over-all dimensions. Popular among modern units are those which combine freezer compartments or even larger freezer units built into the same piece of equipment. Both top opening and side opening freezers are available in sizes suited to kitchen installations.

### **Counters and Tops**

Laminated plastic, linoleum, stainless steel, and tile are among the most popular materials for counter tops. Good fit and careful installation are necessary to secure tops that will not leak, pull away from cabinets or separate at the joints.

### **Fans and Ventilators**

Ranges are ventilated on a through-the-wall basis when against outside walls, and through ducts concealed in soffits or between joists when located against interior wall. Many special types are available to operate through glass block or other special wall materials, by means of attic exhaust systems, and with hoods over the cooking area.

### Dishwashers

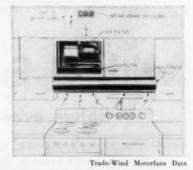
The automatic dishwasher is often one of the "extra" features that helps clinch a sale. They are either built in as part of a cabinet sink, or may be had ready for installation in a cabinet arrangement. Selection of top or front load models should be on the basis of space requirements.

### kitchen range ventilation . . .



Vent-a-hood Company Data

Built-in exhaust blower in this kitchen range hood is batfied to draw air evenly from all sections of hooded area. It provides 18 air changes per minute between hood and range surface. Hood should be 6" longer than range for thorough coverage. Available in copper tone with brass trim or white enamel finish. the unit is easily installed with simple wooden wall frame installed on the wall so as to bring the lower front edge of the hood 59" from the floor. In new construction, this frame can be attached to studding and wall finished around ii



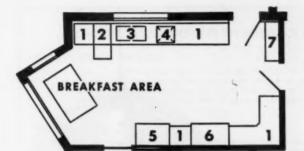
This type of kitchen ventilator has adjustable hood, air filter and power blower. Normal installation includes a duct which draws hot air in off the ceiling at the same time that hot air and cooking tumes are carried away from range surface. Venting is to outside through the roof or via ductwork in a wall to an outside wall

Higher water temperatures needed to scald dishes may require the use of a booster water heater located in the supply line ahead of the dishwasher so that other water for household use is not overheated.

#### **Garbage Disposers**

Waste disposal units-electrically operated grinders, shredders, or pulverizers, mounted in the sink

AMERICAN BUILDER

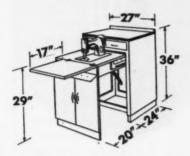


### sewing in the laundry . . .

A sewing machine in the kitchen-laundry or utility room is logical and convenient. This unit comes in a cabinet which matches standard kitchen cabinets in attractiveness and utility. Shown in plan are: (1) Cabinets. (2) Sewing Machine. (3) Sink. (4) Dishwasher. (5) Reirigerator. (6) Range. (7) Utility Cabinets

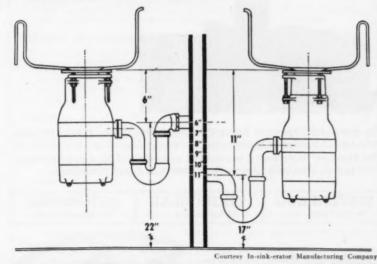
Courtesy Domestic Sewing Machine Company







### disposer fits any rough-in . . .



Short roughing-in clearance is no barrier to this model food waste disposer. Telescoping neck fits around sink flange and is fastened with lock nuts so that adjustment within a range of 5" of vertical clearance are possible. Waste pipe connection through wall may be from 17" to 22" above the floor.

drain—are the modern method of handling food wastes. Elimination of odors and the outside garbage can add sales appeal that more than offsets initial cost of such units.

Plumbing and electrical installation must be made according to local codes and manufacturers' instructions. Individual incinerator units may be used in localities having plumbing restrictions. Gas or electric firing reduces waste to safe, odor-free ash removed at reasonable intervals.

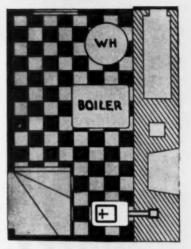
### **Unit Kitchens**

Builders of minimum space units such as motels and kitchenette apartments have profited from the development of unit kitchens in which range, oven, refrigerator and sink are combined into one spacesaving unit which may take as little as 48" of floor space.

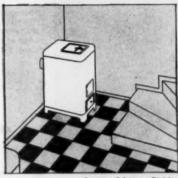
### Laundry Equipment

Modern appliances make possible the satisfaction of most women's de-

# gas or electric incineration . . .



Deciding factors in home incinerator location should be convenience of housewife and chimney accessibility. For automatic disposal of burnable trash, this unit may be either gas or electrically fired to reduce waste to clean, odorless, easily removed ashes. Basement or utility room location is preferred



Courtesy Calcinator Division

sire to have a first floor laundry to save steps and carrying. Compact units make possible an efficient laundry in relatively small space.

# where the elements

# are

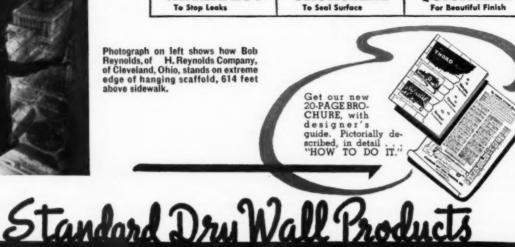
# at their

worst

The dome of the Terminal Tower, Cleveland, Ohio, 614 feet above the sidewalk, takes a beating from wind, rain, boiling sun and subzero temperatures. The exposure to elements, beyond the endurance of most building materials, is protected with Thoroseal, as shown in above photograph.

THOROSEAL





WATERPLUG

BOX X, NEW EAGLE, PENNSYLVANIA

AMERICAN BUILDER

OUICKSEAL

### **A CHECK LIST OF POINTS TO PROTECT PAINT**

### **BASEMENTLESS HOUSES**

Use a heavy asphalt building paper beneath the floorboards to block the rise of vapor from the ground. Cover the ground with a layer of crushed rock, cinders or gravel, and provide grading which will direct surface water away from the building. Use rot-proof flooring, and at least 4 ventilating openings, one near each corner of the building. Insulate pipes.

#### **FLASHINGS**

Never omit or skimp on flashings. They may be needed for roof valleys, edges of roofs, junction of roofs with chimneys and dormers, headers over windows and doors, water tables, and junctions of siding with shingles, stucco or masonry. The need should be judged in the light of winter conditions. For instance, ice dams at the edges of the roof may back up melting snow well past flashings applied simply as protection against summer rain.

### FOUNDATIONS

Waterproof underground walls by putting a thick outside coating of asphalt all around. Paint the foundation wall above ground on the outside with a masonry paint based on a polystyrene emulsion vehicle. For already built houses with a basement wall moisture problem, application of a cement-water paint system may be the solution; or painting with a polystyrene emulsion paint applied directly to the masonry and not over old paint of any type.

### **GREEN LUMBER**

Be sure you're not using it.

### GROUND CONTACT

Wooden studs and siding must not be brought into contact with the ground.

#### HUMIDIFIERS

Don't use them for at least 2 years in a new house with plastered walls. The plastered walls will release tons of moisture during the first few months.

### JOINTS IN FREE-STANDING WOODWORK

Columns, posts, and railings whenever possible should be given the protection of roofs. If possible, such members should be made of the heartwood of naturally durable wood. Sapwood at such joints will take up water rapidly and is susceptible to decay. Dip all end-grain ends of pieces used in these joints in water-repellent preservative after they have been cut and fitted, and before fastening in place.

#### NAILS

Use aluminum or heavily galvanized nails to prevent discoloration of paint from rusting.

### ROOF

A substantial overhang is very effective in preventing streaking of paint and making the coating last longer.

### SIDING

Horizontal joints should overlap generously. Apply paint generously at these points.

Vertical joints in horizontal siding should be made only over studs, and should be well staggered in the successive courses.

Sealing the ends of the siding boards with paint will make a better job.

Corners must be carefully fitted and covered with corner pieces or corner boards. Fit window and door cases with great care to keep out as much water as possible at the junctions with siding. Poorly joined window heads and siding butts are a menace to paint.

Trim is best laid overlapping and overhanging the siding below it.

Vertical siding must have battens to cover the long vertical joints. Remember that flush siding is very susceptible to penetration to rain.

Building paper behind the siding should be water resistant but not too vapor resistant.

### VENTILATION

Stagnant air spaces behind exterior walls will often cause condensation of water vapor, and paint failures. Be sure to provide adequate ventilation for attics, closed-off spaces under roofs, hollow columns, crawl spaces under porches and basementless buildings. Ventilation for crawl spaces should contain openings not larger than 1/4 inch; for attics and lofts, not more than 1/5 inch.

#### VAPOR BARRIER

Vapor barriers should be installed at the time of construction in all new houses built north of the 35 degree January isotherm line,

# PAINT and ADHESIVES

Types of Paint

White Lead Paint Mixed Pigment Paints Priming Paints Stains Roof and Trim Paints Masonry Paints Metal Protective Paints Interior Paints Rubber Base Paints Varnishes Waterproofing

**Estimating Painting** 

Adhesives

Types Applications

FOR MORE INFORMATION ON PRODUCTS ADVERTISED AND DESCRIBED IN THIS CHAPTER PLEASE USE ONE OF THE PREPARED INQUIRY POSTCARDS IN THIS ISSUE.

HE real estate experts say that a good paint job increases the value of a house by 12 per cent. They also say that the three principal influences which sell a house are (1) location, (2) style, and (3) beauty-or the care and good taste with which the house has been painted, inside and out. The sales power of modern colors used with zip and understanding to create "appeal," is a cornerstone of American merchandising.

So beauty definitely pays, and many builders of houses for sale take this lesson to heart, treating the painting phase of their operation with the care it rightly demands. This means painting with top grade materials, not only in carefully worked out color schemes but also with proper selection and handling of the paint on the specialized surfaces involved.

#### Three Vital Points

Final responsibility rests with the builder, whatever may happen along the way. The vital points in this responsibility are: (1) the paint selected, (2) proper application, and (3) careful attention to those constructional details which affect the paint job. Painting specifications are a "must." Too many contracts are verbal between builder and painter, allowing the painter too wide a latitude in the selection of material.

### **Kinds of Paint Coatings** and Their Nature . . .

MANY types and grades of house paint coatings flood the market. They can be classified broadly in three groups of high-grade white or tinted paints whose reliability has been well established. All three groups use linseed or other drying oil for the vehicle, no resin of any kind, and variable proportions of volatile thinner and drier. They differ in the nature of the pigments used, and the Forest Products Laboratory classifies them on this basis. In group L is included pure whitelead in ready-to-use form; group TLZ includes ready-mixed paints made with titanium dioxide, white lead, and zinc oxide; group TZ includes lead-free paints made with titanium dioxide and zinc oxide for use in places where fumes of hydrogen sulfide are present, causing white lead to turn black.

### **Priming** Coats

For exterior use, white lead is good for priming as well as finish

coatings on wood of any kind. And for the following woods, which retain paint longest and withstand weathering well, a good house paint thinned properly can be used successfully as an undercoat: Western redcedar, other cedars except Eastern redcedar. Southern Cypress, and redwood. However, a modern primer is desirable with woods of all kinds, and is especially necessary with the following: Northern and Western white pine. Sugar pine, commercial white fir, Eastern and Western hemlock, Ponderosa pine, Eastern and Western spruce, Douglas-fir, Western larch, and Southern vellow pine.

Priming of inside woodwork involves the use of special priming paints made for use on highly absorptive surfaces such as plaster. cement, and wallboard. The pigments are carried in bodied oils or varnishes and seal surfaces well without penetrating into them excessively.

### Stains

Stains for exterior wood are basically paints very much diluted with linseed oil, a volatile thinner, and

# WHAT TO USE — WHERE AND WHY

Exterior Structural Material	Recommended Paint Material	Special Properties and Functions
Wood		
Siding	Ready-mixed or paste titanium-zinc or titanium-lead-zinc ail-type house paint. On new wood or bare wood a special exterior wood primer may be used. (In many a non-urban situation, or one characterized by unusually troublesome painting conditions, pure white-lead in oil used as its own primer may give the most fool-proof, all-round per- formance.)	Seals against moisture, self- cleaning, minimizes dirt collection through con- trolled chalking, weather resistant, good durability lasting 4 to 6 years. Pre- sents good surface for re- painting.
Trim	For ordinary appearance use house paint as above. For superior appear- ance use special alkyd resin type "trim colors" (undercoat and finish coats).	Higher specular gloss, longer retention of gloss and color, greater fade-re- sistance, smoother texture.
Shingles	Stain with creosate oil, or other type special shingle stains. On previously painted shingles, paint with house paint as above.	Protects wood against rot, dries to a dull finish.
Natural	Apply oil stain as desired. Use low solids varnish-type sealer-filler. Apply two or three coats spar varnish for gloss finish. For dull finish apply oil-wax type finishes (clear or stained), or rub gloss with steel wool or sandpaper.	Protects against moisture and the ravages of weath- er, but does not preserve the natural color of the wood nor have the dura- bility of painted coatings.
Porches and Decks	One or two coats of porch-and-deck enamel. On new wood apply a first coat of exterior wood primer.	Wear and abrasion resist- ant, high gloss, weather resistant.
Masonry		
Brick	Where NO alkali is present in masonry.	
Stucco Stone Concrete Cement-asbestos shingles	A. Oil-type masonry primer followed by exterior masonry (oil) paint, or, two coats of exterior masonry paint. Where higher gloss is desired the last coat may be house paint.	Good durability, good weather resistance, mini- mum dirt collection.
	B. Masonry paint based on alkyd resin emulsion vehicle (water thinned).	Easy to appy, moderately good durability and low sheen.
	Where free alkali may be present in mosonry.	
	A. First coat use chlorinated rubber- based paint, followed by second coat of chlorinated rubber paint, or long oil alkyd resin type masonry paint, or house paint.	Shemical-resistant, alkali- resistant, moderately good wear, water-resistant, good durability, low sheen for oil-gloss.
	<ol> <li>Masonry paints based on poly- styrene or rubber emulsion vehicles.</li> </ol>	
	C. Cement-water type paints, primer and finish coats.	Easy to apply, moisture resistant.

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sometimes creosote. They are, of course, cheaper than paints and do not give as good protection against weathering. Good stains contain only pure, finely divided, opaque pigments, free from transparent pigments. Pure iron oxide, chrome, and carbon pigments are considered very satisfactory; white pigments less so. The liquid part of the stain should be at least one-third linseed oil by volume, with two-thirds often recommended. Stains are most suitable for rough surfaces such as shingles or siding placed with the sawed side out.

### Roof. Trim. Porches and Decks

Roof paints are largely modifications of house paints and may contain some resinous material in their vehicles. They may also be of the alkvd (a synthetic) resin type.

Trim colors of the highest quality are enamel-like pigmentations of high oil content alkyd resins. Trim colors' are designed especially for use on house trim shutters, trellis and other trim structures. They have durability as good as, or better than house paints. Also, they have the added features of high gloss, good gloss and superior color retention. Exterior wood steps, floors of open porches, and other outside surfaces that will be subjected to heavy traffic require paints that harden much more rapidly than house paints do. Paint for these high-traffic surfaces are made with varnish rather than oil vehicles, and this type of formulation wears down by the scraping of the traffic rather than by the slower action of the weather.

### Masonry Paints

There are many protective coatings available for cast concrete, brick, stucco, asbestos-cement siding, unglazed tile, and lightweight aggregate block. These paints can be classed in four groups: highly pigmented oil paint, cement-water paint, synthetic resin-emulsion paint, and paint containing rubber in the vehicle. Under proper but varying conditions they all do a good job of protecting masonry from the inroads of weathering and provide relative degrees of water-proofing.

### **Metal Protective Paints**

These are metal primers designed to form a good adhesive bond between the metal and the top coat. They are also formulated to retard, inhibit, and prevent rust corrosion. In composition and quality, they vary-from the general utility paint, pigmented with iron oxide and extender pigments dispersed in aspar varnish vehicle, to the highly durable zinc yellow primers in alkyd resin vehicles. Zinc yellow primers do an outstanding job. However, where there is not a thorough surface preparation including the removal of all rust, it is better to use a red lead-linseed oil type of primer.

### Paints for Interior Work

Oil-type flat wall paints are made with an oil-varnish vehicle and prime pigments that have high hiding power. In addition, they contain extender pigments to build up the pigment volume so that a flat sheen is provided by the dry film. On these classes of paint-a word of caution. Flat wall paint business runs into large volume and is competitive. Most manufacturers mar-ket a "first line" quality flat wall paint under their own name. To meet acutely competitive conditions some manufacturers also market a "second line" quality product at a lower price. These products contain less oil in the vehicle and more lowcost resinous materials, such as limed rosin. Made with less hiding

# WHAT TO USE — WHERE AND WHY

Exterior Structural Material	Recommended Paint Material	Special Properties and Functions
Swimming Pools	Exterior type chlorinated rubber based paints or paints based on vinyl or other synthetic resins made especially for swimming pools.	Mildew resistant, stands immersion in water, chem- ical resistant.
ron and Steel	First coat on cleaned (and preferably phosphate-treated) metal.	
	A. Zinc yellow primer in alkyd resin vehicle.	Retards and prevents rust- ing and corrosion. Maxi- mum durability.
	B. Oil-based zinc yellow primer.	
	C. On sand-blasted, flame cleaned, or wire-brushed rusted metal, first crat with red lead oil paint primer.	Retards and prevents cor- rosion.
	Top (finish coats) depending on end use may be:	
	A. Oil-based house paint or mainte- nance paints.	Good dunability, low sheen, short gloss retention.
	B. Trim colors, oil/alkyd resin vehicles.	Better gloss and color re- tention, good durability.
	C. Oleoresinous enamels.	Medium to good durability, relatively shorter gloss re- tention.
	D. Alkyd resin exterior enamels.	Maximum durability, color retention, fade resistance, water resistance.
Aluminum		
(siding, rain spouts, etc.)	Pretreat metal surface with phosphate metal treatment, and apply:	
	A. Zinc yellow primer followed by house paint, trim color, or alkyd resin enamel, depending upon end- use.	This system is designed to give maximum durability.
Galvanized Iron, Zinc, or Cadmium	<ul> <li>A. One or two coats zinc dust paint, alkyd resin or oil type.</li> <li>B. After phosphate pretreatments, ap- ply zinc ycllow or red lead primer, followed by house paint, oil-alkyd trim color, or alkyd resin enamel, depending upon end-use.</li> </ul>	metals in this group, with- out a phosphate pretreat-
Brass Copper	For clean finish, coat with spar var- nish or exterior lacquer.	Prevents tarnish.
Canvas	House paint where there is light foot traffic. Porch-and-deck enamel for harder wear.	

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### WHAT TO USE - WHERE AND WHY

This table recommends suitable paint materials for most types of interior structural surfaces. The descriptions of special properties and functions will help to make the right choice in the light of requirements of the individual iob.

Interior Material	Recommended Paint Material	Special Properties and Functions
Walls	A. Oil-type masonry paint.	Long durability.
Stone Concrete Cinder	<ol> <li>Cement-water paint, primer followed by top coat.</li> </ol>	
Brick (In cellar)	C. Chlorinated rubber masonry paint.	Alkali-resistant. Water-resistant.
	D. Rubber or polystyrene emulsion paint.	Alkali-resistant. Seals against moisture.
Plaster	A. If virtually alkali free after treat- ment with neutralizer, apply first coat of plaster-primer, followed by oil-type flat, semi-gloss, or gloss finish; or a flat wall enamel which has an alkyd resin as a vehicle in- stead of linseed oil.	washable. Gloss and scmi- gloss good vapor barriers, and washable. Alkyd flats
	B. Rubber or polystyrene emulsion paint.	Excellent washability. Flashing and ghost-free. Alkali and moisture resist- ant. Good humidity vapor barriers.
	C. Oleoresinous emulsion paints and casein paints.	Easy to apply, only semi- washable.
	D. Calcimines.	Not washable.
Wallboard or Plasterboard	Special non-penetrating oil-type wall- board primer, followed by flat, semi- gloss or gloss finish. May apply rubber emulsion paint directly.	
Fabric or papered wall	Oleoresinous emulsion or rubber lates based paints.	sheen.
Woodwork	A. On bare wood apply one coat of enamel undercoat, followed by semi- gloss or gloss enamel, one or two coats. If white, use alkyd resin type non-yellowing enamel. On previous- ly painted wood the undercoat may be omitted. Surface must be clean.	and color retention. Long lasting.
	8. For clean finishing system, stain with oil stain, if desired, or bleach fo blond finish. Apply varnish type low solids sealer-filler. Follow with on or two coats of interior varnish. (Do not use spar varnish.)	r tention, washable, oil and grease resistant.
Motal Trim etc.	Metal primer, followed by any desired oil type or emulsion finish.	d Corrosion-resistant, durable.
Flaors, wood	A. Stain with all stain if desired, and apply first coat of varnish typ- sealer-filler, or a coat of two pound shellac cut. Follow with two coat of floor varnish. Wax, if desired.	e ant finishing system. High d gloss.
	<li>B. For dull finish, use penetrating oil wax clear, or stain.</li>	l
Linoleum	Use linoleum lacquer. Do not use var nish because of discoloration.	590 -
Asphalt Tile	Wax only. Solvents in paint or var nish would be harmful to asphalt tild	
Cencrete	If alkali is present, paint with chla rinated rubber floor paint. Otherwis oil type floor paint may be used, tw or more coats for longer wear.	e sistant.
Glass	Use special clear synthetic resin fir ishes designed specifically to giv frosted effect.	

power per gallon and cheaper extender pigments, they are likely to become more quickly embrittled with age, lose their adhesion faster and peel sooner. In flat wall paints particularly, as in all paints generally, you get just what you pay for. The most economical finish in the long run is the one with the highest initial cost. To use others is false economy.

Oil-type flat wall paints, as well as oil-type house paints, are marketed in both ready-mixed and paste form, and some new types for interior use are practically odorless. The paste product is usually sold to painters who then add oil and thinners to the paste. They end up with a ready-to-apply product which is comparable to the readymixed paint in composition. By this procedure certain economies to the painter are supposedly achieved,

Semi-gloss and gloss finish paints are also used for wood trim in general and for walls and ceilings where good washability is important and moderately or highly glossy surfaces are customary. These too, are enamel types, made with a varnish vehicle, normally applied in two coats after the wood has been primed. Highly glossy finishes accentuate any defects or irregularities in the wood surface unless the wood has been carefully smoothed and finished.

### **Rubber-Base** Paints

Marketed in ever-increasing volume for interior work are the satinsheen type of rubber-base wall paints which dry quickly to a film that has many characteristics of rubber itself. Most of the particles in the paint are too large to strike into the surface, but coalesce into a solid film, even over porous surfaces. Pioneered on the market in 1949 these latex paints were developed with the needs of the amateur painter and decorator in mind and are very easy to use. They are odorless and contain neither drying oils, turpentine nor similar paint thinner. The thinner in the can is water. Varnishes

Varnish is not just varnish—to be put on everywhere or anywhere. The so-called all-purpose varnishes are at best compromises. Their performance on any given surface can always be excelled by the use of a varnish designed especially for that job.

A spar varnish is one of high oil and low resin content. It is designed to be flexible, water resistant, and weather resistant. Its particular function is to give maximum protection to surfaces subject to exterior exposure on which a clear coating is wanted. A spar varnish is the wrong type of finish to use indoors. On interior woodwork it will be too soft and on warm humid days may get tacky. On floors, it is not tough enough to give satisfactory wear. On furniture, it would soften under body heat.

An interior varnish has less oil and more resin content than a spar. It is designed for woodwork, but is not hard and tough enough for floors or furniture. If used outside, it would be less durable than spar.

A floor varnish is still higher in resin content than interior varnishes. It contains enough oil to give it sufficient flexibility so that it can stand the bumping of hard hitting heels and furniture moving. Its higher resin content gives it the extra toughness needed to withstand the wear and abrasion from heavy foot traffic.

A rubbing varnish, a bar varnish, and furniture varnishes are of still higher resin content. They have a high gloss which may be rubbed with pumice and oil to any desired lower lustre. If they are to be used on table tops or bars, they are made with the type of resins which are alcohol resistant.

Flat varnishes are available in any of the above types. The dif-

ference is that they contain stearates or silicates, or other ingredients which cause them to dry to a lower than normal gloss.

Shellac varnishes are solutions of shellac in alcohol and are classified according to composition and color. The solvent generally used in their manufacture is denatured alcohol. They produce a pleasing finish, with a dull lustre, and can be applied easily and dry rapidly. However, they turn white from contact with water and are easily injured.

#### Waterproofing

The common problem of damp basements has naturally brought into the market a great variety of paint products and others which claim to have "waterproofing" qualities when applied to masonry walls. In approaching this whole problem of waterproof coatings it must be clearly understood that no such coating is of itself a cure-all. Improper drainage of the site, poor workmanship, and defective construction in the building itself can nullify any type of waterproofing.

The so-called waterproof coatings include the four types of masonry paints, described above; colorless surface waterproofings, some of which have a silicone base, some



CALBAR is now available in 26 colors to match or harmonize with every building material on the market. It's elasticized, non-staining and complies with Federal Specifications and those of the Asbestos-Cement Products Association.

Write today for complete details

CALBAR PAINT & VARNISH CO. Nam/acturers of Technical Products 2612-26 N. Martha Street Philadelphia 25, Penna.

# MASONRY FINISHES... that protect and beautify



# STA-DRI Mineral

Capable of holding a wall of water nine feet high without leakage, even if applied inside a basement. Contains a mold and mildew inhibitor, stays white when wet, will not rub off, flake, organically deteriorate or disintegrate. Just mix with water and apply with brush or spray. Supplied in beautiful colors and white in convenient 5, 25, and 50 pound packages.

#### Instant WATER-STOP

Hydraulic cement compound stops existing running water or pressure leaks in masonry

walls immediately. Superb for plugging weep holes, breaks and cracks in basements, pools, cisterns and tanks. Fast-setting, dependable.







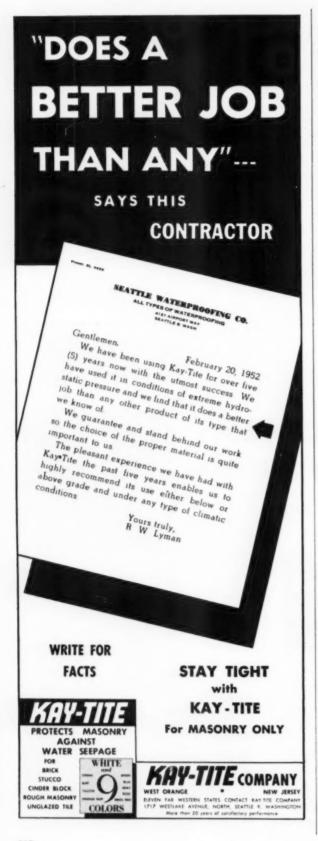
#### **STA-DRI Silicone CLEAR-COAT**

Controls the ugly white stains of efflorescence, but does not change color or texture of masonry surfaces. Clean, transparent, long-lasting. ONE economical application is enough to make rain bounce off masonry instead of being absorbed. Easy to apply. Not affected by heat or cold. Comes in popular 1, 5, 30 and 55 gallon containers.



AMERICAN STA-DRI COMPANY Brentwood, Maryland





containing chlorinated rubber in solution with benzol or naphtha, and still others being a water emulsion of waxes; cementitious coatings and proprietary materials (portland cement and sand, iron dust and sal ammonia, etc.); hot bituminous coatings (asphalt, coal tar, asphalt roof coating, asphalt emulsion, bituminous plastic cement) used on outside walls below grade and also often used on the inside faces of masonry walls.

1.0

#### ... installing tile with adhesives

Note: Either of the two methods described below—buttering or floating—may be used at contractor's discretion for wall tile. Floor tile must be floated.

#### (1) Buttering Method-Wall Tile

Place on back of each tile one or more daubs of adhesive of such quantity that the adhesive, when compressed, will cover 70% to 80% of the back of each tile, approximately  $\frac{1}{16}$ " thick.

#### (2) Floating Method-Wall Tile

a. Spread adhesive, using a saw tooth trowel having notches approximately ¼" by ¼" and 5%" apart, covering surface evenly with a thin layer of adhesive and leaving no bare spots. Coverage shall not be more than 50 square feet per gallon of adhesive.
b. Press each tile firmly into wet adhesive within one hour after adhesive is spread, using slight twisting motion. Do not slide into place as adhesive will build up on tile edge and squeeze through joint, making satisfactory grouting difficult. Maintain horizontal and vertical joints plumb, true and even and of specified width.

#### (3) Floating Method--Floor Tile

- a. In areas where fitting is required, fit tile sheets before applying adhesive.
- b. Spread Floating Type MIRACLE ADHESIVE on surface to be tiled, using a <sup>1</sup>/<sub>8</sub>" saw toothed trowel held at a 45 degree angle, covering surface evenly with a thin layer of adhesive and leaving no bare spots. Do not cover in one application a larger area than that to which tile can be applied in <sup>1</sup>/<sub>2</sub> hour.
- c. Press tile sheets firmly into wet adhesive with a slight sliding motion, and align carefully with adjacent sheets. Do not slide sheets for any great distance, as adhesive will build up on edges of tile, making satisfactory grouting difficult.
- d. Not later than one hour after setting tile (and earlier, if surface being tiled is absorptive), remove paper backing by wetting and align individual tiles if required.
- e. When through delays or other causes, the adhesive films over or dries before tile can be applied, scrape off dried adhesive and butter the back of the tile lightly with fresh adhesive. Do not leave any area coated with adhesive, which cannot be tiled the day of application. Apply fresh adhesive as specified when work is resumed.
- f. Clean aff any excess adhesive from face of tile with an approved solvent when adhesive is wet, or cut it off with a sharp knife when dry.
- g. Apply approved grout and cure in accordance with manufacturer's instructions.

Figures from the Pratt & Lambert "Specifications Manual" 7th Edition.

AMERICAN BUILDER

# HOW TO APPLY AN OIL PAINT TO WALLS AND CEILING

Use a 3½- or 4-inch brush. Finish ceiling first. Complete a 3-foot strip across the ceiling, doing the final brushing in the same direction on each section. Finish another 3foot strip, and so on, until ceiling is completed. On sidewalls, start at ceiling and work down in about 3-foot square sections, cross-brushing horizontally and finishing with vertical brush strokes toward the ceiling. Completely finish a 3-foot strip from ceiling to baseboards.

### HOW TO REMOVE WALLPAPER

HOW TO REMOVE WALLPAPER Soak the paper thoroughly with warm water, using a large sponge and plenty of water. Use a putty knife to lift off wallpaper. Remove all traces of paste on wall by washing with a solution of 1 to 2 tablespoonsful of paint cleaner in a gallon of warm water.

#### ADHESIVES

"Construction by adhesion" is a phrase appearing more and more frequently in trade literature as special adhesives are developed to handle a wide range of fastening functions in modern building practice.

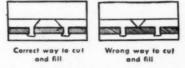
Generally speaking, adhesives may be of two types: buttering, or floating. Adhesives designed for the buttering method are frequently of a medium or heavy dough consistency. Those applied by the floating method are usually thinner, or a medium to light dough or light butter viscosity.

Applications of adhesive are almost without number. Surfaces ranging from brick, concrete, glass, marble, and metal to plaster, wood, plywood, wallboard, stone, terrazzo and slate may have bonded to them nearly every type of building material.

Building papers are bonded to sheathing and foundations. Ceramic and metal tile are bonded to wall surfaces. Plank and ceiling tile are bonded to all types of wall or ceiling surfaces. Rubber and asphalt tile, linoleum, and plastic materials are bonded to floors, walls, counter tops, and other surfaces. The scope of adhesives is increased by the use of numerous types of metal fasteners, usually consisting of nails or studs anchored to a flat base plate. In use, the base plate is bonded to the tile or other material being applied after the stud or nail has been driven into the supporting material.

Most manufacturers of ceramic tile, rubber tile, asphalt tile, and other surfacing materials either produce suitable mastics or adhesives or recommend specific types of adhesive which are found suitable for specific applications of their products. The entire field of adhesives is so complex, and the results obtained from one adhesive in a given situation will vary so greatly from those obtained from using another, that extreme care must be taken to follow manufacturers' recommendations together with instructions furnished with the adhesive material itself.

#### HOW TO PATCH PLASTER



To fill large cracks, undercut as shown in drawing, and fill with a suitable compound. Sand smooth and prime with a sealer or with thin shellac.



Brush on the material





Then cross-brush with strokes in the



#### HOW TO APPLY SPATTER-DASH FLOOR FINISH



Spattering is done after the floor has been painted a solid color and allowed to dry. Have the brush well filled with the contrasting color selected, and strike the brush

sharply against a stick or piece of iron pipe held in the other hand. Small spatters are made with less paint in the brush and by striking the brush against the stick held about one foot from the floor. Make large spatters with a brush full of paint and by holding the stick about three feet from the floor.

#### HOW TO LOAD A BRUSH



Dip it in about <sup>1</sup>/<sub>3</sub> the bristle-length. Tap gently on sides of can to "settle" the paint into the brush. Never scrape on rim of can. Always start with a clean brush.

#### DO'S AND DON'T'S WHEN FINISHING WOODWORK AND FLOORS

- —allow plenty of time for coats to dry.
- DO-paint when weather will permit opening windows to allow ample ventilation.
- DO—remove all hardware before you start to paint. You'll get a better job and save time.
- DO—be careful when painting high places. Use a sturdy ladder and be sure the paint can is set on a steady surface.
- DON'T—paint over grease, oil, or wax. Remove with turpentine.

DON'T—paint or varnish over a glossy surface. Rub it down with sandpaper.

DON'T-pile on heavy coats of paint or varnish. Two

thin coats will always be better than one thick coat.

- DON'T—fail to putty up all cracks, crevices and nail holes after the first coat is dry.
- DON'T—fail to stir the paint thoroughly. Half-hea ted stirring results in poor hiding, lack of uniformity in the firish coat, differences in degree of gloss, etc
- DON'T—leave paint or varnish uncovered when through for the day. Cover tightly to prevent skin from forming on the top. If skin has formed, don't mix it in. Carefully remove the skin before stirring. DuPont

ALL OTHE

461

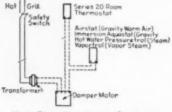




control systems

It is fully as important to have a good control system as to have a good heating system, for without it the heating system will not function at maximum efficiency. The following control set-ups are basic and will be used depending upon the heating system selected and the degree of automatic control desired:

Hand-fired coal, gravity warm air. A room thermostat governs operation of damper motor, which is connected to both draft and check doors on

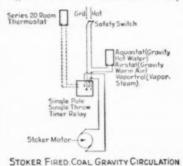


HAND FIRED COAL GRAVITY CIRCULATION

furnace or boiler by a chain arrangement. Limit control closes draft door and opens check door if the furnace overheats.

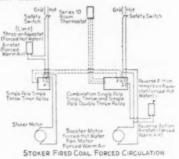


Hand-fired coal, forced circulation. This system has a thermostat, damper motor, transformer, limit control, and in addition, a relay to start and stop blower motor or booster pump motor. There is also a reverse-acting control in the voltage power circuit for starting the booster pump or fan motor in case the room thermostat is not calling for heat. This takes care of any



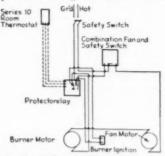
override in temperature within the heating unit itself so that no injury will result from overheating.

Stoker-fired coal, gravity circulation. Almost identical to system No. 1 above, these controls differ in the use of a timer relay rather than a damper motor and transformer. The relay provides for regular minimum feeding of coal to maintain the fire in the hering unit during the long intervals when room thermostat does not call for heat.



Stoker-fired coal with forced circulation. These controls are the same as system No. 2, except that a timer relay is used in place of damper motor and transformer. In some hook-ups a stack control is used instead of relay for the hold-fire. This, however, has a tendency to corrode and deteriorate. Timer relay is preferred.

Oil-fired forced warm air. This is similar to oil-fired gravity circulation, with the exception of a limit control. Instead, a combination fan and safety switch is installed. This starts the fan motor when the bonnet of the furnace has sufficient heat. It will also stop the oil burner in case of excessive bonnet temperature. This hook-up delays the starting fan until heat is

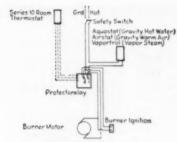


OIL FIRED FORCED WARM AIR

built up, thus warming instead of cooling rooms when the unit starts up.

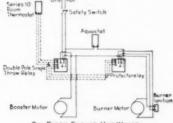
Oil-fired gravity circulation. This system is identical with hand-fired and stoker-fired coal hook-ups except that the protecto-relay replaces timer relay or damper motor. This protectorelay is for the intermittent burner ignition, probably the most essential control in any oil burner installation.

AMERICAN BUILDER



#### OIL FIRED GRAVITY CIRCULATION

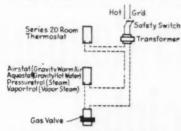
It stops the burner if there is a stoppage in oil flow, and also stops ignition motor if ignition fails.



#### OIL FIRED FORCED HOT WATER

Oil-fired forced hot water. When the room thermostats call for heat, the relay closes the power circuit and starts the booster motor. This also energizes the protecto-relay, which starts the oil burner. The aquastat will stop the oil burner if water temperature becomes too great, while the booster pump will continue to run until the room thermostat is satisfied.

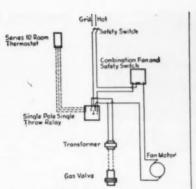
Gas-fired gravity circulation. The line voltage power circuit is reduced in voltage for operation of a solenoid gas valve installed in the gas supply pipe. The valve operates from a lowvoltage thermostat, through the limit



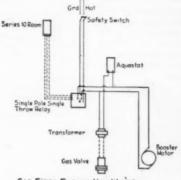
#### GAS FIRED GRAVITY CIRCULATION

control, which prevents overheating of the unit.

Gas-fired forced warm air. This is the same as the oil-fired forced warm air except that a single-pole, singleprotecto-relay. The room thermostat throw relay is used instead of the calls for heat, closes the relay, and causes the gas supply valve to open. Bonnet temperature activates the fan which will run as long as bonnet temperature stays high enough. Fan and safety switch prevents bonnet from overheating.

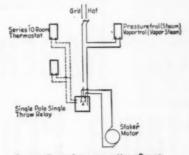


GAS FIRED FORCED WARM AIR



GAS FIRED FORCED HOT WATER

Gas-fired forced hot water. This is similar to the gas-fired warm air system except that an aquastat is used in place of combination fan and safety switch. Booster pump operates directly off room thermostat, runs as long as it calls for heat. The aquastat is strictly limit control.



#### STOKER FIRED STEAM WITH YEAR ROUND DOMESTIC HOT WATER

Stoker-fired steam system with year-round domestic hot water. This has the same controls as for stokerfired steam with gravity circulation, except that a single-pole, single-throw relay is used instead of a timer relay. An immersion aquastat connected in parallel with the thermostat causes the stoker to run enough to maintain heat within the unit and heat domestic water. This also acts as a hold-fire control.







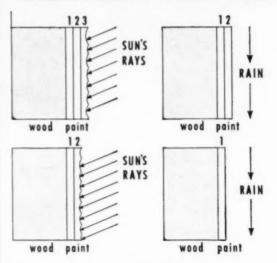
Here is the labor-saving material to meet the popular domand for rustic type homes and commercial buildings.

National Douglas Fir Logs are squared on three sides and precision cut with no taper to widths of 7", 8" or 9 inches and lengths of approximately 8" 3". Grooved on top and bottom to receive wooden spline which is furnished with the logs. Inside surface of log & planed and may be used as the finished interior wall. Very good for houses, restaurants, motels, logges, resorts, etc. AVAILABLE NOW. Write direct to mill for apostations.

Splined joints easily water and weatherproofed with caulking compound or mastic.



#### CHALKING PROCESS ON A WHITE SURFACE



The sun's rays and weathering destroy the oil in the top glossy layer. The pigment particles become loosened, rolling up accumulated dirt as they do so and are washed off by the rains, exposing the second coat to the same process. This is "chalking," and in a good house paint the process is chemically controlled to (1) keep the house clean and bright in appearance, (2) prevent the paint coating from becoming unduly thick with repainting, and (3) to relieve certain stresses and strains which occur within the coatings and cause checking and cracking. The normal 3-coat job in the United States is durable for about 5 years, but the chalking process will go faster in southern Florida, for instance, where there is more sunshine and more rain, than in northern Maine, where there is not so much sunlight. In very dry sections, like New Mexico, the erosion by chalking is slowed down.

# What's the most wanted fuel in home heating?...GAS What's the most <u>Economical</u>, most <u>Efficient</u> way to burn gas? The Patented ROBERTS-GORDON Spreader Flame Principle! Is there a complete line of ROBERTS-GORDON Home Heating

Equipment for every type of system, for every size house? **V** 

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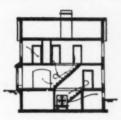
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Manufacturers of Gas Heating Equipment For Over a Quarter of a Century BUFFALO 6, N.Y.

AMERICAN BUILDER

### **BELT DRIVE FAN INSTALLATIONS**





If basement windows are large enough to provide ample exhaust, this location is sometimes preferred. Enclose stairwell and locate fan under stairs (removing risers) or on one side.

#### **Gable Installation**

When the attic is finished, making it airtight, the fan is often installed behind a manual shutter or metal louvre in the gable. Entire attic serves as a suction box for opening in attic floor.

Fan is connected with an enclosed portion of the stairwell. No ceiling grille is required, attic door is opened when fan is operating. Valuable attic floor

Because many attics are not sealed, it is necessary to use an

airtight suction box over a centrally located ceiling grille to

assure the full effect of the fan

Vertical Discharge All Hunter belted units can operate in a horizontal position, discharging vertically. This solves installation problems in many modern homes having

limited attic clearances.

#### **Attic Stairway**

space is saved.

Suction Box









Attic Wall In homes where main portion of attic space is finished, unit may be mounted in partition wall, discharging into unfinished attic space. Fan is installed in the shipping crate. Hunter Fan Data

PRESSURE OF ATMOSPHERE FOR

Barometer	Pounds per	Barometer	Pounds per
Inches	Sq. Inch	Inches	Sq. Inch
28.00	13.75	29.75	14.61
28.25	13.87	30.00	14.73
28.50	13.99	30.25	14.85
28.75	14.12	30.50	14.98
29.00	14.24	30.75	15.10
29.25	14.36	31.00	15.22
29.50	14.48	31.25	15.34

APRIL 1953





GENERAL PRODUCTS COMPANY

# BAMBOOFOLD



NEEDS LESS SPACE THAN A DOOR! IS MORE VERSATILE THAN A DOOR! IS MORE DECORATIVE THAN A DOOR!

#### as Room Divider

BAMBOOFOLD is the answer to difficult door problems. It encloses, provides privacy for dining and cooking areas . . . is ideally suited for walk-in closets. BAMBOOFOLD permits circulation of air—preventing mold, odors, warpage and moths. Now being used by leading builders throughout the country.

BAMBOOFOLD is constructed of finest inside core bamboo—on self-lubricating nylon slides for easy operation. Laboratory tests have proven a minimum lifetime of thirty years. Approved by the FHA.

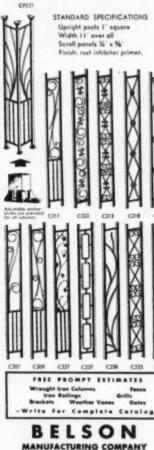
AMERICAN BAMBOO CORP. General Office: Jamaica 3, N. Y. Plantis: Jamaica, N. Y.—Tullytown, Pa.

465



# GOLUMNS

Belson's superior hand wrought columns are available in two convenient stock height: 76, 80'; each height is adjustable 6 by cutting upright pasts to receive anchor plates. For heights exceeding 80', custombuilt columns are readily fabricated. Single panel flat or double panel 90' corner columns are available in all designs.



Aurora Ave. and Butterfield Bd. Aurora 5 Illinois SEND YOUR PLANS TODAY

466

# Types and Styles of Metal Trim

8 BASIC GROUPS . Metal trims are divided into eight groups shown on this page. Each group includes several different styles of trims for the same general purpose. For example, nosings include those with flanges that extend under the coverings: those with a flange which fits into a groove; and those without flanges. Also, many Chromedge sections are not limited to a single use. For example, No. 102, a nosing listed as an INSERT TRIM, is also used as a cap trim. These trims are classified as to their most frequent use. (Insert trims are grouped separately).

**CAP TRIMS** • For upper edges of dado, wainscot, or cove-base. Those with a projecting lip at upper edge in back can be used also as nosings.

**WALL TRIMS** • or divider bars —conceal joints between panels of either like or contrasting coverings, used for decorative paneling.

**INSERT TRIMS** • Shown separately because of colorful inserts this group includes nosings, wainscot caps, corners and coves.

**COLOR RECESS TRIMS** • This group of nosings features painted recesses for decorative beauty.

**PRICE TAG TRIMS** • A separate group of nosings for specialized use. Available for all standard price tickets held by grooves in mouldings.

**CORNERS AND COVES** • Inside and outside corners, horizontal or vertical. Many have matching end stops and corner fittings.

**EDGINGS AND BINDERS** • These trims bind, seal or protect edges of coverings where exposed to wear, stress or moisture. Includes sink-well edgings, carpet-bindings, threshold saddles and similar sections.

**NOSINGS** • For outer edges of bars, counters, cabinets, tables, sink tops, drain boards, stair treads and similar points. Nosings with flat backs serve also as wall trims. Those with a raised lip provide non-drip counter edges.



PACKAGE receivers are available in various trims and colors, made of insulated steel, with inner and outer doors



GRILLE or louvre for ceiling fan is a typical installation. Similar metal louvres are also popular in doors to control drafts and room ventilation

# men over 45

More than six times as many men of your age will die of lung cancer this year as died in 1933. Our research scientists still don't know why.

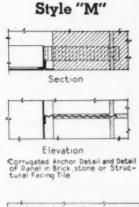
They do know, however, that over half of those who will develop lung cancer can be saved... if they get proper treatment while the disease is still in the silent, symptomless stage. That's why we urge you to have a chest X-ray every six months no matter how well you may *feel*.

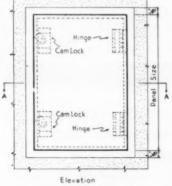
For more information call us or write to "Cancer", care of your local Post Office.

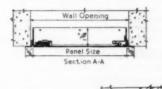
**American Cancer Society** 

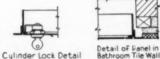


POPULAR for small homes, metal awnings over both windows and doorways keep out rain, sun glare



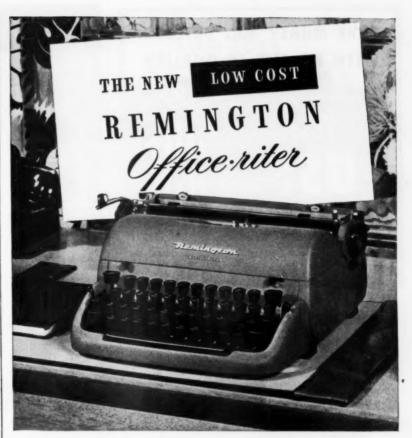






Installation details for Style "M" access door.

Courtesy Inland Steel Products Co.



## THE COMPLETE...COMPACT TYPEWRITER FOR PROFESSIONAL AND SMALL BUSINESS USE

Here it is -a typewriter that's just right for the professional or small business office. And its low price is just right too! The new Remington Office-riter has every needed, practical typing feature for general correspondence, invoicing, carbon copies and stencil cutting. Accurate columnar typing is easy with the exclusive Miracle Tab that sets and clears tabulator stops from the keyboard with a flick of the finger.

The fast, responsive action and crystal clear printwork that are the hallmarks of a fine office typewriter are yours with the Office-riter. So, if you have been thinking of getting a new typewriter for your office — and if you want to make a *substantial saving* — get complete information today from your dealer... and be sure to ask him about convenient terms.

#### STANDARD 11-INCH CARRIAGE WITH A FULL 103/10-INCH WRITING LINE



- The Office-riter's 11-inch paper capacity is large enough for all general office typing, and the writing line is the longest of any 11-inch carriage machine now manufactured. The Office-riter easily takes paper, carbon packs or forms up to 11 inches wide. Plus all these other office typewriter features:

Exclusive Miracle Tab New direct-set visible margins Standard keyboard with 42 keys, 84 characters Pat. simplified ribbon changer

Super-strength frame construction

A PRODUCT OF Remington Rand.



# A REAL ECONOMIZER

Here's a round type window well that features sturdy, streamline corrugated 16 gauge steel construction, full commercial weight bright galvanized coating, and a sturdy reinforcing safety bead for strength across the top.

Its cost is low, yet it offers plenty of lasting quality. ASK for USF Standard Window Wells.

# FOR YOUR BEST JOBS

USF's top quality Window Well is the Custom grade, available in both the straight or round type in a full range of sizes. They offer an extra bright, full 2 oz. galvanize coating, super-sturdy extra-deep corrugations on 16 gauge copper steel, and are reinforced with a full-round safety bead across the top.

## SEE YOUR BUILDING MATERIAL DEALER



# when there's more than one floor...

DUMB WAITER

CORRESPONDENCE



-

Many new jobs, as well as alterations, can benefit by the inclusion of dependable Sedgwick Elevators, Dumb Waiters and Dumb Waiter Doors. Standard sizes. Prompt shipment. Nationwide representation. Contact:

Edgwick MACHINE WORKS

Specialists in Vertical Transportation Since 1893





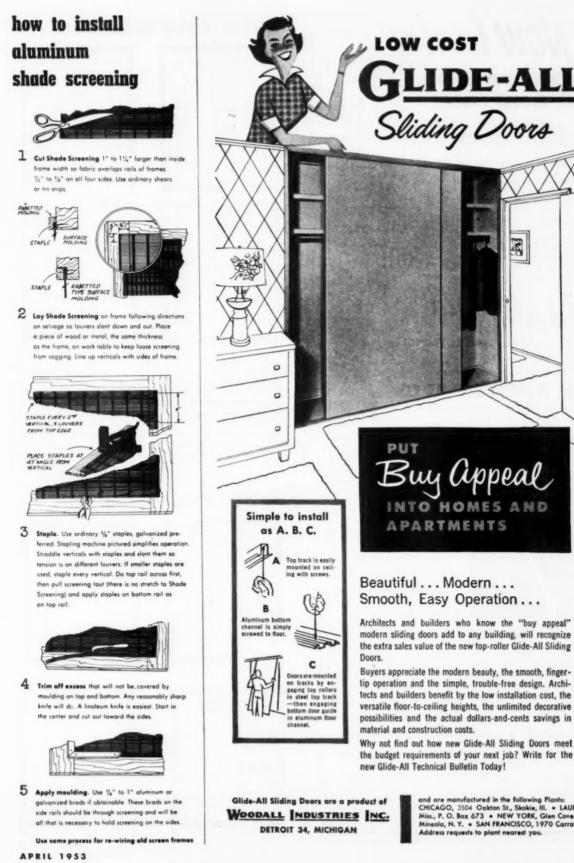
## Save hours of Figuring with the RADER WOOD JOIST and RAFTER SELECTOR

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Designed with the home builder in mind, these refrigerators come in three standard widths of 24", 28" and 32". Elimi-nate fractional dimensions in your planning. Flush-type hinges available on certain 24" models where door swing must be held to a minimum. Choice of right or left-hand door opening on all models. Every model has a big, fullwidth Freezer that women prefer, and striking arctic blue in-terior trim. Most models have an 18-lb. Meat Keeper. All have the famed Economizer Mechanism with proved 24year record of low-cost operation and maintenance.

#### WESTINGHOUSE HOME FREEZERS

Today's leading builders are keeping pace with homemaking trends by providing space for home freezers in their new homes. Westinghouse Home Freezers are ideal for kitchen in-stallation because of their upright design. There's no waste of floor space, wall space, or sacrifice of cabinet arrangement. Available in 8.5, 12, and 18 cu. ft. sizes with either left or

#### REFRIGERATOR SPACE REQUIREMENTS (All models available with either left or right-hend door opening)

Model	Height	Width	Depth Including Hardware	Depth Door Fully Open	Width 75° Door Opening	Shelf Area Sq. Ft.
TFE-114	651/2"	32"	297/8"	56%	341/2"	19.0
DFE-12	651/2"	32"	2815/16"	567/a"	341/2"	20.4
DFE-10	591/4"	32"	2815/16"	561/8"	341/2"	17.0
DFE-84	571/2"	28"	297/8"	527/8"	301/2"	14.4
DFE-75	561/2"	24"	2911/16"	487/8"	261/2"	14.3
DE-9	571/2"	28"	297/8"	527/8"	30 1/2"	17.4
DE-8	561/2"	24"	2911/16"	487/8"	261/2"	16.1
SE-8	561/2"	24"	2911/16"	48%	261/2"	16.1
HE-8	561/2"	24"	2911/16"	501/2"	2415/16"	16.1
HE-6	50"	24"	283/4"	501/2"	241/2"	11.8
		H	OME FREE	ZER		
UFE-180	671/a"	36"	31"	62%"	381/4"	18.6
UFE-120	651/2"	32"	29%"	567/8"	351/2"	13.7
UFE-85	571/2"	28"	29%"	52%	31 1/2"	11.4







#### WESTINGHOUSE ELECTRIC DISHWASHERS

Here for the first time, is a dishwasher that is styled to look like an appliance, one that stands out in a kitchen and adds beauty. The front-opening, top-loading design offers many advantages. The top is a full-time, unbroken work surface. Shelves or cupboards can be installed over it at standard height. Has greater washing capacity than any other dishwasher, yet is only 24" wide. Available in four models: the 48" Dish-

washer-Sink and 24" Under-Counter Model (both illustrated); the 24" free-standing Cabinet Model, with porcelain enamel top; and a 24" Portable Model. All have completely automatic pre-rinse, wash, doublerinse and drying cycles.

Dishwasher connects to the sink drain line by means of a special "Y" tail-pipe. This eliminates need for separate drain line and trap. Operates on 110-120 volts, a-c.

#### DISHWASHER SPACE REQUIREMENTS

Model	Width	Height	Depth Including Hardware	Depth With Drawer Open
Under-Counter, DWB-13 Cabinet, DWB-24	24"	341/2" 36"*	261/8" 261/8"	421/2" 421/2"
Portable, DW-24P Dishwasher-Sink,	24"	36''*	261/8"	42 1/2"
DWB-480SC**	48"	36"0	261/4"	421/4"

Add 4" for backsplasher Also available less top. Order Model DWB-4850.

#### WESTINGHOUSE WASTE-AWAY® FOOD WASTE DISPOSER

An appliance that adds "buy appeal" far in excess of actual cost. A Waste-Away shreds food waste, even bones, and flushes it away, down the sink drain line in seconds. Performs equally well when connected to city drain lines or with septic tanks. Eliminates need for garbage

to the dram times of with septer tanks, Eliminates need for garbage can, garbage chute, or garbage incinerator. Easily and quickly installed in cast iron, formed metal or enameled sheet steel sinks with  $3\frac{1}{2}$ " to  $5\frac{1}{2}$ " drain openings. Requires only  $8\frac{1}{2}$ " between bottom of sink bowl and center line of drain line in wall for drain connections. Plugged opening in upper housing permits Westinghouse Dishwasher to drain through Waste-Away. Operates on 110 volts, a-c.

G-45 Dimensions: 87/16" wide x 11" deep x 15%16" high

#### WESTINGHOUSE LAUNDRY EQUIPMENT

It's amazing how prospects "go" for houses equipped with Westinghouse Automatic Laundries. In city after city, this has proven true. People like the convenience these famous appliances provide, especially when the house is small and washing and drying facilities are limited. You can provide a complete laundry in only 5 ft. 3 in. of floor space, regardless of models selected.

#### LB-6 LAUNDROMAT

Automatically washes, triple-rinses and damp-dries clothes, eliminating need for stationary laundry tubs. Does not require bolting down and can be installed in base-ment, kitchen or utility room. Features the popular Weigh-to-Save Door and Water Saver. Its thorough, yet gentle Agi-Tumble washing action cleans dirtiest work clothes, yet is safe for the new miracle fabrics. Operates on 115 volts, a-c. This Laundromat and the Clothes Dryer make an identical

"Twin" installation to produce compact laundering facilities.

0.45

#### RL-1 LAUNDROMAT

The bolt-down, economy version of the LB-6 operates in exactly the same manner and does the same fine job. Does not have the Weigh-to-Save Door and Water Saver. Operates on 115 volts, a-c.

D-6 CLOTHES DRYER A Westinghouse Clothes Dryer eliminates need for an extensive drying area. It electrically dries clothes completely or to desired dampness for ironing. May be installed in basement, kitchen or utility room. Features handy-loading shelf door and Singing Signal which sounds when clothes are dry. Can be conveniently and economically vented outdoors from right side or back of the appliance. Dryer can be quickly converted from 115/230 volt to 115-volt, a-c operation.

#### LAUNDROMAT AND CLOTHES DRYER SPACE REQUIREMENTS

Model	Width	Height	Depth	Depth With Door Open
LB-6	31"	361/2"	271/4"	421/4"
RL-1	2734"	353/4"#	233/4"**	303/8"
D-6	31"	361/2"	277/16"	427/16"

Removal of plastic fill pipe cover permits installation under standard height

counters. \*\*Allow a minimum of 3" from back of appliance to wall for plumbing connections. LB-6 Laundromat can be flush mounted by use of a special bracket available as an



RL-1



#### WESTINGHOUSE SPEED-ELECTRIC RANGES

The impressive list of features that were first introduced by Westinghouse in the electric range industry have made these ranges hot promotional items for builders. To mention a few: FIRST with the Super Corox Unit, a surface unit that gets hot in-stantly, red hot in 30 seconds; FIRST with a Miracle Sealed Oven that assures perfect baking results in any rack position; FIRST with the exclusive Automatic Corox with Electronic Eye . . . the world's first com-pletely automatic surface unit.

The new 1953 Westinghouse Speed-Electric Ranges are beautifully styled and available in models and sizes for every need. All are simple to install, requiring only the usual 230-volt, a-c range circuit.

#### COMMANDER MODEL AD-774

This de luxe, double-oven range has the ex-clusive Automatic Corox Unit with Elecclusive Automatic Corox Unit with Elec-tronic Eye . . . so positive in temperature control that even if the pan boils dry, FOODS CAN'T BURN. Also has the Super Corox Unit that gets RED HOT in 30 seconds . . Plug-in surface units to speed cleanup . . . a Giant Miracle Sealed Oven that bakes perfectly in aux seck position that bakes perfectly in any rack position ... a second sealed Oven for extra baking or roasting capacity ... beautiful Color-Glance Controls, plus a Two-Level Speed Cooker for fast French frying ... Built-in Over Times and two here a duminum stor Oven Timer and two large aluminum storage drawers on nylon rollers.

#### COMMANDER MODEL BD-74

This big, new range has the sensational Super Corox Unit that gets RED HOT in 30 seconds, plus two standard Corox Units. All are the exclusive Westinghouse Plug-in type. Also includes a Giant Miracle Sealed Oven, Two-Level Speed Cooker, Color-Glance Controls, Built-in Clock and Automatic Oven Timer and three storage drawers.

#### RANGE SPACE REQUIREMENTS

Model	Width	Height	Depth With Door Open
AD-774	40''	473/4"	421/2"
BD-74 DD-74	40'	473/4	4212
CD-774	40"	4 37/2"	421/2"
ED-74	40"	437/8"	421/2"
HDA-244	30"	461/4	441/4"
EDH-74 FD-64	21"	43 %	433/,"
FD-63	21"	40"	433/4"

#### CHAMPION MODEL DD.74

Beautifully styled. Has a Super Corox Unit, Giant Miracle Sealed Oven, Two-Level Speed Cooker for fast French frying, Color-Glance Controls, Automatic Appliance Outlet, Built-in Clock and Automatic Oven Timer.

#### COMMODORE MODEL CD.774

A truly deluxe electric range with famous Miracle Sealed Oven plus a Second Sealed Oven for extra-cooking capacity. Has a Super Corox Unit, plus three other speedy Corox Units. Tel-A-Glance Controls, a Built-in Light, Clock and Automatic Oven Timer, two large storage drawers.

#### IMPERIAL 30 MODEL HDA-244

This is a spacesaving range with deluxe features that takes only 30 inches of floor space. Features a King Size 24" Miracle space. Features a King Size 24" Miracle Sealed Oven with Look-in Door, and Oven Light, Super Corox Unit plus three other speedy Corox<sup>®</sup> Surface Units, Built-in Clock and Automatic Oven Timer, Appliance Outlet, Minute Timer, and one extra-large storage drawer.

#### CHALLENGER MODEL ED-74

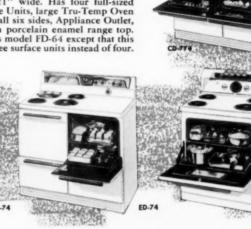
Here's real value in clean, cool, fast electric cooking. Features a big Miracle Sealed Oven, three speedy Corox Units and a 6-qt. Econo-Cooker, Tel-A-Glance Controls, Appliance Outlet, three storage drawers. (Can be equipped with accessory Clock and Oven Timer.)

#### MODEL EDH-74

Here's the perfect electric range for locations needing a full-sized, low-priced model. This solid base model has an extra-large True-Temp oven, four fast Corox surface units, two 8 inch and two 6 inch. Also includes famous Westinghouse Tel-A-Glance Controls, Single Dial Oven Control, Oven Signalite, and Appliance Outlet.

#### CORONET RANGES APARTMENT HOUSE MODELS

FD-64 Only 21" wide. Has four full-sized Corox Surface Units, large Tru-Temp Oven insulated on all six sides, Appliance Outlet, and Titanium porcelain enamel range top. FD-63 Same as model FD-64 except that this range has three surface units instead of four.







#### WESTINGHOUSE ELECTRIC WATER HEATERS

The well-known Westinghouse name on Water Heaters in your homes gives an immediate impression of quality—an impression that carries over to all details of your houses. It adds a real selling feature to your homes.

Westinghouse Water Heaters can be installed anywhere—basement, kitchen, utility room, alcove, closet. Need no provision for flue or fuel storage. They can be installed nearest point of greatest use. This is an economy advantage that eliminates long pipe runs.

All Westinghouse Water Heaters carry a liberal 10-Year Protection Policy against tank failure. All have economical, efficient, direct-immersion heating elements; accurate, automatic temperature control, and Fiberglas insulation.

**DE LUXE MODELS**—In 30, 40, 52, 66 and 80gallon capacities, with single or double heating elements.

TABLE-TOP MODELS—In 30, 40 and 50-gallon capacities, single or double heating elements. Table-Top Water Heaters have porcelain enamel platforms with four-inch backsplashers that provide a standardheight work surface. New 50-gallon size requires no more space than the 40.

#### UNDER-COUNTER INSTALLATION (see illustration)

Table-Top Heaters can be installed under custom work surface, simply by removing the porcelain enamel platforms. On 50gallon size, a slight recess in underside of custom work surface (described in installation instructions) may be necessary to accommodate hot water line.

#### SIMPLIFIED TABLE-TOP PLUMBING

Special recessed back on all Table-Top models simplifies plumbing, permits water connections to be made at rear, through floor or wall. Illustration at right, with top removed, shows how recessed pipe channels permit installation flush against wall.

WATER HEATER SPACE REQUIREMENTS

De Luxe Models	Capacity	H	eight	Diameter		
CF-10D	10 gal.	5555	93,4 ''	183/4**		
CF-30D	30 gal.		53,8 ''	203/4**		
CF-40D	40 gal.		93,8 ''	233/4**		
CF-52D	52 gal.		93,8 ''	253/4**		
CF-66D	66 gal.		93,8 ''	273/4**		
CF-80D	80 gal.		97,8 ''	273/4**		
Table-Top Models	Capacity	Height*	Width	Depth		
AF-30T	30 gal.	36''	21"	25"		
AF-40T	40 gal.	36''	24"	25"		
AF-50T	50 gal.	36''	24"	25"		

\*Add 4" for backsplasher.







Under-Counter Installation



Simplified Plumbing



#### MODEL SPHV

The promise of a clean, comfortable kitchen or laundry is a "must" consideration with house prospects. Westinghouse Poweraire Home Ventilators will provide it. Easy to install in practically any wall thickness. Grilleone-piece steel with baked-on white and gray enamel finish. Easily removed for cleaning. Adjustable wall sleeve accommodates all standard wall thicknesses.

#### MODEL SPCV

The Poweraire ceiling ventilator also has a one-piece grille, easily removed for cleaning. Heavy sheet steel adapter permits easy assembly to a standard 8" diameter duct, if required.



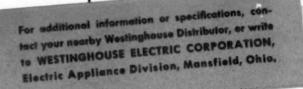
Both models are powered by a Westinghouse brushless, 2-pole, induction-type motor, and are economical to operate with individually self-aligning, porous-sleeve bearings.

#### SPECIFICATIONS

Catalog No.	Blade Size	Volts	Cycles	Speed RPM	Air Dis- placement CFM**	Watts	Approx. Shipping WtLbs.
8PHV 8PCV	$\frac{7}{7}\frac{1}{12''}\frac{2''}{2''}$	115	60 60	1900 1900	250 250	52 52	12½ 10

shown. \*\*By Standards of National Electrical Manufacturers Association.

\*T.M.



FREE Information

Read the ads! Manufacturers want you to know all about their products and how to use them properly. Use this BIG card, the easy way, to get all the facts.

# **ABOUT ADVERTISED PRODUCTS**

The postcard below is designed to help the readers of American Builder get further information about the Products and Equipment Advertised in this CATALOG-DIRECTORY Issue.

Keep your product file up to date. Get this FREE information. All you have to do is check the items below and mail the postcard to us. No postage necessary. We will forward your requests to the manufacturer, who will promptly mail you complete data.

#### WE PAY THE POSTAGE

products or equip	information about ment advertised in 5-DIRECTORY.	Page Manufacturer's No. Data Dealer Manufacturer's Name — — — — — — — — — — — — — — — — — — —	Page No. Data Dealer         Manufacturer's Name           —         —           —         —           —         —           —         —           —         —
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-00	_00	NAME	
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-00		STREET	
-00	-00	CITY	ZONE_STATE

# ON ADVERTISED PRODUCTS

..

Keep abreast of the constant changes taking place in the building field. The products advertised in this issue are designed to help you do a better building job in 1953. Read the pages of this issue with care. Be sure to see your local LUMBER and BUILDING SUPPLY DEALER for all your building needs. If he doesn't carry the products you're interested in, here's a quick, easy way to get complete information. Just check and mail the postcard below. We'll do the rest.





#### BUSINESS REPLY CARD Flort Ches Pounts No. 31775, Sec. 34.9, P. L. & R., Chicago, Illinois

4 cents Postage will be paid by

## **Business Manager**

AMERICAN BUILDER 79 West Monroe St. Chicago 3, III.



# **1953 American Builder Directory**

HIS, the third issue of the annual directory compiled by the American Builder, gives the latest and most complete product and data information in the building field. Here contractors, builders, architects, and building material retailers will find information as to building products, their manufacturers, and brand names,

20

Section I-an alphabetical list of building products and equipment and their manufacturers:

Section II-an alphabetical list of brand names identified with names of manufacturers:

Section III-an alphabetical list of manufacturers of

building products and equipment with addresses: Section IV-an alphabetical list of industry and allied professional associations:

In addition, service organizations prepared to render aid to the industry and to furnish helpful information on special problems are listed under appropriate titles.

This year round reference directory is designed to serve the builder, contractor, architect, and dealer. As every effort was made to make it as accurate as possible, the American Builder cannot be responsible for changes in names, addresses and other discrepancies.

This soction includes only the names of the manufacturers.

As an example, suppose that Mr. Jones wants to find the

name and address of a manufacturer of ladder accessories.

First, he will turn to the heading "Ladder Accessories" in

Section I. Here he will find listed the names of eight manu-

facturers among which he may select Red Devil Tools.

Turning to Section III, he will find the address of the com-

pany (Coit Street, Irvington 11, New Jersey.) in its alpha-

The addresses of these manufacturers are listed in alpha-

betical order in Section III, starting on page D-76.

betical order under the name Red Devil Tools.

The names of manufacturers who advertise in American Builder are printed in boldface here, in the brand names list and in the list of manufacturers' names and addresses starting on page D-76

# SECTION I **Alphabetical List of Building Products and Equipment** Manufacturers

TN THIS SECTION I, building products and equipment, are listed in alphabetical order with the manufacturers of these products and equipment listed under the appropriate titles. No cross references have been used in this section. The editors feel that the readers of the American Builder are well acquainted with the terms employed in the building industry and can lead themselves to the items in this directory. The principal proper nouns of classifications are the key words used in forming the alphabetical lists; for example, wood double hung windows are listed as-

Windows, double hung, wood

#### ABRASIVE PAPER & CLOTH

Abrasive Products Inc AMERICAN FLOOR SURFACING MACHINE Armour & Co Sandpaper Div Armour & Co canaparper by Atlas Abrasives Corp BEHR-MANNING CORP DIV NORTON CO Carbornadum Corp Clarke Sanding Machine Co Clover Mfg Co Ciorer Mig Co Dirate Mig Co Dirate Mig Co Mid-West Abrastre Co Minnesota Mining & Mig Co Minnesota Mining & Mig Co Mittresutan PLATE GLASS CO RED DEVIL 19012 Sandpaper Ine Southern Galvanizing Co

#### ACOUSTICAL MATERIALS

ACOUSTICAL MATERIALS
Air-O-Cel Co
 American Bidrok Co
 Anstranke Cork Co
 CAROT (SAWUEL) ING
 CELOTEX CORP
 CAROT (SAWUEL) ING
 CENTAIN-FEED PHODUCTS CORP
 DANG MARGING Fasteware Corp
 Hamson 12001 lic
 WASSELL INC
 C Building Fasteware Corp
 Hamson 12001 lic
 WASSELL INC
 Co Bit MINHESOTA 4 ONTABIO
 PAFE CO
 PANS-MARVILLE CORP
 Ediley Jaland Lime & Transport Co
 Kamberid-Citatk Corp Kinsul Dir
 Lockport Cotton Batting Co
 NATIMAAL GYPSUM CO
 WEMS-COMMING FIBEBELIAS CORP
 Porete Mfg Co

REYNOLDS METALS CO Simpson Logging Co Taylor Redding Mfg U S GYFSUM CO WOOD CONVERSION CO ZONOLITE CO

#### ADHESIVES

Abesto Mfg Corp Aetna Blywood & Veneer Co A & F Tileboard Co AMERICAN ASPHALT BOOF CONP A + P Tribolari Co AMERICAN ASPNALT HOOF CONP AMERICAN ASPNALT HOOF CONP AMERICAN ASPNALT HOOF CONP ALL DIV BARCLAY WFC CO BIRD 4 SON INC BOYON CO Chemical Dip BRUCE (E L) CO B 4 T METALS CO CANDT (SAMUEL) ING CAMBUT (SAMUEL) ING CAMUEL (SAMUEL) ING CAMUEL (SAMUEL) ING CAMUEL (SAMUEL (SAMUEL) ING CAMUEL (SAMUEL (SAMU Flexrock Co FLINTKOTE CO Gibbs Boardtile Corp Goodrich B F Co ayes Adhesives Co IGGINS ING

INSULITE DIV WINNESOTA & ONTARIO PAPER CO IONNS-MANVILLE CORP Lastik Products Co Ince Lasting Products Co Lebing Co Lasting Froducts Co Lefong Co Lefong Co Lefong Co Massimo Giue Corp. Massimo ALL PRODUCTS INC MASSIM WALL PRODUCTS INC MASSIM WALL PRODUCTS INC MASSIM WALL PRODUCTS INC MASSIM CO MASSIM CONTRACT Missaker Plywood Co Minnesota Mining & Mig Co Minnesota Mining & Min Co Minnesota Mining & Min Co Minnesota Mining & Mining & Min Co Minnesota Mining & Min Co Mi Patent Cereals Co PECORA PAINT CO INC Perkins Gius Co PITTSBURGH PLATE GLASS CO Placo Div Paisley Products Inc PLASKON DIV LIBBEY-OWERS-FORD GLASS Plastergon Wallboard Co PRESTILE MFG CO PRESTILE MFG CO Reliable Paste Co Bohm & Haas Co Sauereisen Cement Co Sechaik Chemical Co Seick (Walter E) & Co Shoffeld Bronze Paint Corp SHIMGLSTIK Slazen Bleing Cam Sloane-Blabon Corp Standard Pasto & Glue Co Stonhard Co

Sullivan Co Superior Wall Products Co 5 & W. Moulding Co Tamma Industries Inc Thomas Moulding Floser Mfg Co Tile-Tex Dir Finikole Co Tile-Tex Dir Finikole Co TYLAC ComPANY U S PLYWOOD CORP Wealace Mfg Co Westow Atterpaints Inc Youngstown Mfg Co

ADVERTISING NOVELTIES & AIDS

AIDS Advertisers Exchange Ins Advertiser' Mfg Co Allied Cloth Specialties American Textile Products Co Bentam Brothers Bag Co Bertarm Co Bertarm Co Brown Blodgett Co Canton Glass Co Ine Colonial Knife Co Colonial Knife Co Ine Cyclone Beeder Co Eagle Rule Mfg Corp Economy Novelly & Printing Co Edwards (Vincent) & Co Pulson Bag & Cotton Milla ison-Wagner Printi n (Louis M) tmes (LF) & Ben mis mas Co

LUFKIN RULE CO MASTER RULE W/G CO INC May (J.L.) Company Meyer-Both Co Minnesota Specialty Co Murphy (Thomas D) Co National Plan Service Inc National Plan Service Inc National Plan Service Inc Parisian Novelby Co Poince (William M) Poster Print Inco Inbeson Cutlery Co Inc Inssell Harrington Cutlery Co Shedd-Brown Mfg Co Nither (Fold) Randard Awning Co STANLEY TOOLS DIV STANLEY WORKS Unter Katle Co Inc Yoos Co Inc Wagner Awning & Mig Co Werner Cavasa Products Co

#### ADVERTISING SERVICES

Advertisers Exchange AMERICAN TELEPHONE & TELEGRAPH CO Bradham & Co DODGE (F W) CORP Ford Advertising Ager Hadley Lindsey Co Lil-Ad Features Lilly (David) Co Local Trademarks Inc new Material Dealers Newspaper Mat Servele Meyer-Both Co Norm Advertising Stevens Advertising Agency Worldwide Syndicate Constr Bldg

#### AGGREGATES, LIGHT WEIGHT

Anne Ashedas Covering & Flooring Co Alexander Film Co American Bildrok Co American Perilte Cop American Sermiculte Co Black (John H) Co Endina Perilke Co Carolina Perlike Co CARTER-WATERS CORP CELOTEX CORP CELOTEX CORP Cleveland Gypsum Co Combined Metals Reduction Co DANT & RUSSELL INC GREAT LAKES CARDON CO GREAT LAKES CARGON CO Great Lunker Co HIGGINS INC Hydraulic Presend Brick Co JOHNS-MANVILLE CORP Kelley Island Lune & Transport Co Lasting Products Co Magnire (Walter) Co Inc Masse Perlite Inc Massillon Refrectories Co McNear Brick Co Michaestern Perlite Corp Northwest Insulation Co Panaeaitle Perlite Inc Perlite Products Present Stab & Tile Co Promice Aggragate Sales Corp Schundler (F E) & Co Inc Silburg, Corporation Silbrico Corporat Sisco Mines Ltd Sno Lite Products Co Standard Perlite Co Sollivan amms Industries Inc. etah Perlite Products Co Virginia Perlite Co Waylite Co Western Brick Co Western Perlite Corp ZONOLITE CO

#### AGITATORS, PAINT

Artington Ine Black Bros Co Ine Chicago Bronze & Color Works Doy (J H) Co Devne & Raynolds Ine Electric Sprajit Co Estance MR Co HOLT MANUFACTURING CO Mfg Co Paint Rejuvenator Co Inc Airbrush Co Mirsele Paasehe Airbrush Co **RED DEVIL TOOLS** Tamms Industries Inc Warner Manufacturing Co

#### AIR COMPRESSORS

P AIR COMPRESSOR ALLIS-CHALMERS MFG CO Runner MFg Co Runner MFg Co Chicago Pneumatic Tool Co Daves Compressor Co Devilbias Co Electric Sprayit Co Essick MFg Co Gardner Denver Co Inserten Dune Co Ingersoll-Rand Co IAEGER MACHINE CO Paasche Airbrush Co PITTSBURGH PLATE GLASS CO Saylor Beall Mfg Co WORTHINGTON CORP CONSTRUCTION EQUIPMENT SALES DIV

#### AIR CONDITIONERS

Acme Industries Inc American Blower Corp. AMERICAN RADIATOR & STANDARD SAN-ITARY CORP. ITARY CORP nebor Div Stratton & Terstegge Co Inc nemostat Corp of America Bard Mfg Co Bard Mfg Co Berger Furnace Mfg Co BRYANT HEATER DIV AFFILIATED GAS EQUIPMENT DIV CARRIER CORP Cleveland Steel Prods Co Course Engineering Wiss Div Conkey H D Co CRANE CO CROSLEY DIV AVCO NFG CORP DELCO APPLIANCE DIV GENERAL MOTORS SALES CORP Polls Heard Core BUSH MFG CO CARRIER CORP SALES CORP Belta Heating Corp Fairbanks Morse & Co Fluid Heat Div Anchor Post Products Co

Find Heat Div Anchor Post Products Co Frick Co Prigidaire Div General Motors Corp GENERAL AIR CONDITIONING CORP GENERAL ELECTRIC CO AIR CONDITION-ING DEPT Gillert & Barker Mfg Co Gillert (J L) Co Heil Co Henderson Furnace & Mfg Co Henry Furnace Co Homer Furnace & Foundry Corp Hotstream Heater Co HUNTER FAN & VENTILATING CO International Heater Co JOHNSON (S T) CO KELVINATOR DIV NASH-KELVINATOR

CORP Ko-Z-Air Inc Lennox Furna ince Co Marka C MeQuay Inc MEYER FURNACE CO MUEVER UNRACE CO MODINE MIC CO MODINE MIC CO MUELLER (C 1) FURNACE CO WORKE DIV BORG-WARNER CORP MORMAN PRODUCTS CO Northwest Metal Products Ine Olitus CO Olitus CO Olitus (C A) Mfg CO Penne Mfg CO Penne Boller & Rutner Mfg Corp Persito Mfg Corp Philes Corp Bay Oil Burner Co RHEEN MFG CO RICHMOND RADIATOR CO Rybolt Heater Co SERVEL INC Surface Combustion Corp Thatcher Furnace Co Trane Co TYPHOB AIR CONDITIONING CO U.S. Air Conditioning Corp Vising Mg Corp Ward (Edgar T) Industries Ine Waterman-Waterbury Co Warene Home Equipment Co WFSTIMEMOUSE ELECTRIC CORP WITTIGAMESE ELECTRIC CORP WITTIGAMESE ELECTRIC CORP

Williams Oll-O-Matic Div Eureka Williams Corp Wood (Gar) Industries Inc WORTHINGTON CORP CONSTRUCTION EQUIPMENT SALES DIV York Corp YOUNG RADIATOR CO

#### ALARMS, BURGLAR AUTH ELECTRIC CO INC.

(J H) & Co Burglar Trap Co Edwards Co Ine Edwards Co Ine Federal Enterprises Ine General Burglar Alarm Co Ine Guardian Electric Mfg Co Lyon Rural Electric Co

#### ALARMS, FIRE

Edwards Co Inc Faraday Electric Corp General Detroit Corp Rockwood Sprinkler Co Sparks-Withington Co Sporti Faraday Inc

#### ALUMINUM, ARCHITEC-**TECTURAL & ORNAMENTAL**

Apex Brass & Bronze Works Badger Wire & Iron Works Inc Braseo Mfg Co GENERAL BRONZE CORP ers Inc Newman Brothers Inc PITTSBURGH PLATE GLASS CO REYMOLDS METALS CO BUILDING PROD-UCTS DIV Wenzel Mfg Co

#### ANCHORS, BUILDING Ackerman-Johnson Co Adams Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

Alien Steel Products Arro Expansion Boit Co Carpenter & Patterson Inc Cleveland Steel Specialty Co Inc Conver Steel Specialty Co Inc Onver Steel & Wire Co Davis & Steel Co Dayton Sure-Grip & Shore Co Decatur Iron & Steel Co Devices Inc Diamond Expansion Boit Co Donley Bros MAGER (C) & SONS NINCE MFG CO Holmann & Barnard Inc Ideal Hanger Co Illinois Zine Co Kees (F D) Mfg Co LACLEOE STEEL CO Kees (F D) Mfg Co LACLEDE STEEL CO Lakeside Malleable Casting Co Lanebro Mfg Co Logan Co aft Plastics Co Inc Mastereral Plastics Co Inc Morwin Mig Co METAL CRAFTERS DIV CASTONE PROD-UCTS CO MIRACLE ADHESIVES CORP Molly Corp MOORE (GOODLOE E) CO. Guard Prod PAINE CO Paine Co Polis (J D) Mfg Co Rawiping Co Inc Industrial Div Bichmond Serew Anchor Co Sommer Mitaleraft Corp Southern Wire & Iron Wks Star Expansion Products Co Statistic Loss, Wardson Stewart Iron Works TIMBER ENGINEERING CO U S Expansion Bolt Co Universal Form Clamp Co WAGNER MFG CO Williams Form Engineerin Winner Industries CO Engineering Corp

#### ARCHES, LAWN

Anchor Post Fonce Co ARTCRAFT ORNAMENTAL IBON CO CURTIS COMPANIES INC Stewart Iron Works ewart In

#### ARCHES, METAL

Alabama Metal Lath Co BOSTWICK STEEL LATH CO CECO STEEL PRODUCTS CORP INLAND STEEL PRODUCTS CO Nation Lathing Marino Lathing Supply Co NATIONAL GYPSUM CO PENN METAL CO INC TRUSCON STEEL CO U S GYPSUM rugating Co.

#### ARCHES, WOOD, LAMINATED

Concord Woodworking Co Inc. nators Inc McKeown Brothers Co RILCO LAMINATED PRODUCTS INC Super-Structures Inc TIMBER STRUCTURES INC Unit Structures Inc. WEYERHAEUSER SALES CO.

#### AREAWALLS

ten Steel Corn Brainard Steel Co CECO STEEL PRODUCTS CORP Decatur Iron & Steel Co Donley Brothers Harris Inc Hohmann & Barnard Inc Kaptur (Joseph J) Sales Co Kewanes MFG Co Majestic Co Penn Metal Co Inc St Paul Corrugating Co Shapon Steel Co UNITED STEEL FABRICATORS INC

#### ASBESTOS-CEMENT BOARD

Acme Ashestas Covering & Flooring Co CAREY (PHILIP) MFG CO CELOTEX CORP HOMASOTE CO JOHAS.MARVILLE CORP KEASBEY & MATTISON CO RUBERDID CO

#### ASBESTOS-CEMENT BOARD, **ENCASED INSULATION**

CAREY (PHILIP) MFG CO JOHNS-MANVILLE CORP KEASBEY & MATTISON CO Standard Asbestos Mfg Co

#### > AWIS

P AVILS Bridgeport Hardware Mfg Corp Creasent Tool Co Millers Fails Co Peek Stow & Wilcox Co SARGENT & CO STANLEY TOOLS DIV STANLEY WORKS

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#### AWNINGS, STORE & RESIDENCE

AIR CONTROL PRODUCTS INC FAWSCO MFG DIV FALLS STAMPING & WELDING CO Hettrick (W E) & Sons Co KAWNEER CO CO Inc Ron-Del Inc RUSSELL (F C) CO

#### AWNINGS & CANOPIES. METAL

AIR CONTROL PRODUCTS INC AIN CONTROL PRODUCTS INC Aluminum Awning Co Div Orchard Bros Inc ARTCRAFT ORNAMENTAL IRON CO ARTCRAFT ORNAMENTAL IRON CO Awnair Co B & B Engineering & Supply Co Childers Mfg Co Colgate Mfg Cor Coole Action of Co Cole and Star Corposed Control of Co Edwards Mfg Co Edwards Mfg Co FaweEO Kaptur (Joseph J) Sales Co KawNEER CO Kool Vent Aluminum Awning Dsitributors Maco Corp Kool Vent Aluminum Awning D: Maco Corp McKinley (Norman O) Co Metal Tile Products Inc National Ventilated Awning Co Newman Brothers Inc Orchard Brothers Inc Orchard Brothers Inc Peerless Products Ron-Del Inc **MUSSELL (F C) CO** Smith (F P) Wire & Iron Works Thabet Mig. Co Troy Sunshade Co United Metal Products Inc Wolfe Products Inc Wolfe Products Inc

#### AXLES & DRIVERS, TRUCKS, SPECIAL

Cemco Industries Inc Eaton Mfg Co Truckstell Mfg Co

#### BARROWS & BUGGIES

American Conveyor Co American Ladder Co American Steel Scraper & Wheelbartow Co Boyle Mfg Co Buch Manufacturing Co Case Crane & Kilhourne Jacobs Co Chattanonga Wheelbartow Co Construction MACHINERY CO Goldblatt Tool Jackson Mfg Co Kwik-Mix Co ol Co Lansing Co MULLER MACHINERY CO INC Northwest Metal Products Inc Seymour Mfg Co Sterling Wheelbarrow Co Toledo Wheelbarrow Co United States Steel Products Co Western Wheel Barrow Mfg Co

Whiteman Mfg Co WORTHINGTON CORP CONSTRUCTION EQUIPMENT SALES DIV

#### BARS, CROW & PINCH

American Swiss File & Tool Co Bucabel Tool Mfg Co Damascus Steel Products Corp Decatur Steel Products Co GETTY (H S) & CO INC STANLEY TOOLS DIV STANLEY WORKS Valley Forging Co Woodings-Verona Tool Works

#### BASE, METAL

BOSTWICK STEEL LATH CO Goldsmith Metal Lath Co INLAND STEEL PRODUCTS CO Kinkead Industries Knapp Bros Mig Co MacKlanburg Duncan Co National Gypsum Co Pern Metal Co Inc Reynolds Metals Co Building Prods Div DIV DIV TRUSCON STEEL CO U S GYPSUM CO Werner (B D) Co Ine Wheeling Corrugating C Wollaeger Steel Corp Co

BASKETS, TRASH & WASTE

Boyle Mfg Co Cyclone Fence Div American Steel & Wire Co Kraus (Walter S) Co Kraus (Walter S) Co LAWSON (F H) CO MAJESTIC CO Meyers (Fred L) Mfg Co Smith (F P) Wire & Iron Works Wheeling Corrugating Co

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#### **BATCHERS, ADJUSTABLE** MEASURING

BESSER MFG CO Blaw-Knox Co Bodinson Mfg Co Butler Bin Co Chain Belt Co Concrete Transpo Concrete Transport Mixer Co CONSTRUCTION MACHINERY SALES CO Fleming Mfg Co Heltzel Steel Form & Iron Co Johnson (C S) Co Martin Steel Products Noble Co Supremix Willard Concrete Machinery Co Ltd

#### BATHROOM ACCESSORIES

 BATHROOM ACCESSORIES
Allen Steel Products Co
Autoyre Co
Backe (Semon) & Co
Bay Ridge Specialty Co Ine
Commbing K sales Co
Chrome-Tex Ine
Columbia Metal Box Co
Columbas Plastic Products Ine
CoBBIN (C & F) DIV AMERICAN HARDWARE CORP
CRABE CO
Ekco Products Co
Faries Mig Co
GERITY-MICHIGAN CORP
HALL-MACK CO HALL-MACK CO Handy Things Mfg Co Home Essentials Corp House of Hospitality House of Hospitality Illinois Porcelain Enam KIMBALL GLASS CO KITCHEN MAID CORP Knape & Vogt Mfg Co Kraus (Walter S) Co LAWSON (F H) CO amel Co LAWSON (F H) CO Marchand (A) Inc MARSH WALL PRODUCTS INC MARSH WALL PRODUCTS INC MIMANI CABINET DIV CAREY (PHILIP) CO MURAAY CREF FLUSH VALVE CO MURAAY CORP OF AMERICA MURAAY CORP OF AMERICA NATIONAL STEEL CABINET CO National The & Mig Co Northern Industries Inc Parker (Charles) Co Parker (S) Hardware Mig Corp Fluence Co PIONEET CO PITTSBURGH PLATE GLASS CO PRESTILE MFG CO PROTECTUB INC SAGER-BARROWS DIV YALE & TOWNE SACER-BARROWS DIV YALE & TU MFC CO Selck (Walter E) & Co Shower Door Co of America Skuliman Hardware Co Skylime Industries Smith (E C) Mfg Corp Sommer (J L) Mfg Corp Standardo BUILDING PRODUCTS CO Stylon Corp Superior Plastics Div Commonwealth Plastics Inc Tiletone Co TOLEDO DESK & FIXTURE CO T & S Brass & Bronze Works In TURNER & SEYMOUR MFG CO TYLAC CO TYLAC CO U S Die Casting Co U S Lock & Hardware Co WESTWOOD MFG CO Youngstown Mfg Co Inc

#### BATHROOM CABINETS

PBATHROUM CABINELS AIR CONTROL PRODUCTS INC American Enameled Products Co MAGEL NOVELY CO Camp Mig & Sales Co Cole Mig Co Coleste Mig Corp Colestie Corp Tyle-Bord Inc Dis Columbia Mig Corp Coloutie Corp Tyle-Bord Inc Dis Columbia Michael Box Co Comant Bros Co Contant Bros Co Cup Co Stell & ENGINEERING CO CURTIS COMPANIES INC Diske Brothers Dyke Brothers Excel Metal Cabinet Co Inc Faries Mfg Co Farley & Loetscher Mfg Co GERITY-MICHIGAN CORP Gold Scal Mfg Co Goslee (J B) Co GROTE MFG CO HALL-MACK CO Hamilton Metal Products Co Hamilton Metal Products Co Harris Inc. HOTES CO Holley (L.E.) Houston Blow Pipe & Sheet Metal Works Ideal Cabinet Corp Des Lauriers Oblumn Mould Co Kinzus FC Mills Co Kraus (Walter S) Co

LAWSON (F H) CO Marchand (A) Inc Marquart Millwork Co MIAMI CABINET DIV CAREY (PHILIP) MFG CO MFG CO Mirro-Glo Cabinet Co Morgan Co Morton Mfg Co National Metal-Art Mfg Co National Metal-Products Co National Mirror Works MATIONAL STEL CABINET CO Ohio Window Glass Co **GRNAS & LABARRE** Packard Formsteel Corp Parker (Charles) Co Pioneer Co Corp Porcelain Metals Corp PROTECTUB INC Roach & Musser Mfg Co Rock Island Millwork Co Boyal Glass Works Corp Schenck (William) & Co Selck (Walter E) & Co SHEPLER MFG CO MILLOR COM Smith (E C) Mfg Corp STANDARD BUILDING PRODUCTS CO Standard Stamping & Perforating Co Standard Steel Cabinet Co Stylon Corp TOLEDO DESK & FIXTURE CO Toledo Pitat & Window Glass Co United Metal Box Co Universal Fabricators Vimear Sales Co Walters Mfg Co Western Metalcraft Inc

## **BATHROOM TOILET SEATS**

Bemis Mfg Co Beneke Corp Brunswick-Balke-Collender Co Inc Church (C F) Mfg Co HIGGINS INC ork Co Plumbers Woodwol PROTECTUB INC cible Steel Co Swedish Crucible Steel Co Vogue Mfg Co Washington Woodcraft Co

#### BEAD, CORNER METAL

ama Metal Lath Go Badger Corrugating Co BERGER MFG DIV REPUBLIC STEEL CORP BOSTWICK STEEL LATH CO B & T METALS CO Bugher MFG Co Bugher Mfg Co CECO STEEL PRODUCTS CO Continental Steel Corp CEUD STEEL PRODUCTS UD Continental Steel Corp Doniey Brothers Edwards Mic Loah Co Hosting Payor & Sunnly HILAND STEEL PRODUCTS CO Klauer Mic Co Klauer Mic Co La Crosse Steel Rending & Corrugating Co La Corpse Steel Rending & Corrugating Co MACKLANBURG-DUNCAN C Mirwin Mir, Co Mid States Steel & Wire Co NATIONAL GYPSUM CO PENN METAL CO INC Penn Supply & Metal Corp Piper (H K) Mir Co Sioux Steel Co Soule Steel Co STEELCRAFT MFG CO TRUSCOM STEEL CO SUB REPUBLIC STEEL CORP U S GYPSUM CO Wheeling Corrugating Co

BEDS, WALL BUILT-IN

American Bed & Spring Co Evansville Metal Bed Co Harris-Hub Bed & Spring Co Mfg Co Holmes Products Co MURPHY DOOR BED CO Roll-A-Way Corp Superior Sleeprite Corp

#### BELLS & CHIMES, DOOR

AUTH FLECTRIC CO INC. AUTH ELECTRIC CO INC Brein Gros Mig Co Chimes Inc CORBIN (P & F) DIV AMERICAN MARD-WARE CORP Desgan (J C) Inc Edwards Co Inc Formatic Co Inc Franchas Filertic Corp Liberty Rell Mfg Co Well-d-Chime & Signal Co Inc NATIONAL BRASS CO NUTONE INC Penn Hardware Co Rhamstine (J Thomas) RICHCRAFT CO RITTENHOUSE CO INC Sperti Faraday Inc Starr Brothers Bell Co Trine Mfg Corp

#### **BEVELS**

Disston . (Henry) & Sons Inc

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LUFKIN RULE CO a Mfr. Co Southington Hardware Mfg Co STANLEY TOOLS DIV STANLEY WORKS Starrett (L. S.) Co

## **BINDING, LINOLEUM &**

**OIL CLOTH** ALLMETAL WEATHERSTRIP CO B & T METALS CO CENTRAL METAL STRIP CO ecorite Inc ennis (W J) & Co Kinkead Industries Inc MACKLARBURG-DUNCAN CO Metal Trims Inc National Metal Products Co Samson Products Co Superior Plastics Div Commonwealth Plastics Inc Inc S & W Moulding Co Werner (R D) Co Inc Youngstown Mfg Co

#### BINS, HARDWARE

BINS, HARDWARE BERGER MFG DIV REPUBLIC STEEL CORP Equipto Div Aurora Equipment Co Friek-Gallagher Mfg Co
 Heller (W C) & Co Heiler (W C) & Co Heiler (W C) & Co Heiler (W C) & Co Stackin Corp Stackin Corp Warren (J D) Mfg Co
 BLINDS, VENETIAN Agee Venetian Blind Mfg Co Artex-Green Corp Bills (Stackin Corp Clark & Hammer Inc Clifton Mfg Co
 Clark & Hammer Inc Clifton Mfg Co
 Clark & Hammer Inc Clifton Mfg Co

#### BINS, MATERIAL STORAGE. BULK

BULK Arrow Tank Co Ine Badger Corregating Co Blaw-Knox Co Brainard Steel Co Brower Mfg Co Brutler Bin Co Butler Bin Co Construction Machinery Co Construction Machinery Co Demain Tron & Steel Co Demain Front & Steel Co Demain Front & Steel Co Demain Front & Steel Co Person Frontes Co Frank Front & Co General Conveyor & Mfg Co General Conveyor & Mfg Co General Conveyor & Mfg Co Jeffrey Co Lyon Metal Products Midwest Steel Products Co MULLER MACHINERY CO INC Noble Co Noble Co Red Tiger Products Inc Richmond Engineering Co Inc Sioux Steel Co STEELCRAFT MFG CO Super Structures Inc

#### BINS, NAIL

Deluxe Metal Furniture Co Equipto Div Aurora Equipment Co Frick-Gallagher Mfg Co Heiler (W C) & Co ohnson Industri Johnson Industries Precision Equipment Co Red Tiger Products Inc Stackbin Corp Universal Equipment Co Warren (J D) Mfg Co

#### BITS, AUGER

Clark (Robert H) Co Bruno Tools Div Crescent Tool Co DURA-BILT TOOL CO Greenlee Tool Co Irwin Auger Bit Co Millers Falls Co Peck Stow & Wilcox Peck Stow & Wilcox Co STARLEY TOOLS DIV STANLEY WORKS Star Bit & Tool Co Tools of View Col Taylor-Giede Co

#### **BITS, COUNTERSINK**

Damascus Steel Products Corp Greenlee Tool Co Pugh (Job T) Inc Star Bit & Tool Co STANLEY TOOLS DIV STANLEY WORKS Vaughan & Bushnell Mfg Co

#### **BITS, GIMLET**

Deuse (E W) Co Greenlee Tool Co Div Greenlee Bros & Co Mephisto Tool Co Inc Peck Stow & Wilcox Co

#### BITS, SAW

Atkins (E C) Die Borg Warner Corp Corley Mig Co Hoe (R) & Co Inc SIMONOS SAW & STEEL CO Southern Saw Works Yates-American Machine Co

#### **BLACKBOARDS**

Equipment Mfg Co Inc New York Standard Blackboard Co Inc Nu-Gloss Inc

#### BLADES, SAW, HACK, ETC. BRADFORD MACHINE TOOL CO

Clemson Bros Inc FORSBERG MFG CO MEINEMANN (F) SAW & MFG CO International Twist Drill Corp PTI Inc Victor Saw Works Inc

Columbia Mills Inc Consolidated Venetian Blind Ci Crawford-Austin Mfg Co CURTIS COMPANIES Eastern Machine Products Co Estern Venetian Blind Mfg Co Hettrick (W E) & Son Co Het

#### BLOCKS, PLASTIC

Bloxolite Co of America Div Hachmeister Inc Columbia Protektosite Co Inc

# **BLOCKS, STRUCTURAL, IN-**

OWENS-ILLINGIS GLASS CO KAYLO DIV

P BLUWVERS, AIK Air Contube Inc American Foundry & Furnace Co CHELSA FAR & BLOWER CO Dowagiac Steel Furnace Co Hartzeil Fromeler Fan Co Herman Reson HomeLite Coap Homer Furnace & Foundry Corp Lennor Furnace Co Trane Co Trane Co Uno Sentilator Co Utility Appliance Corp

#### BLOWERS, FURNACE

AMERICAN BLOWER CORP DIV AMERICAN RADIATOR & STANDARD SANITARY CORP CORP Autovent Fan & Blower Co Clarage Fan Co Dayton Electric Mfg Co Ing Electric Ventilating Co LAU BLOWER CO MAJESTIC CO

#### BLOWERS, INSULATION CAREY (PHILIP) CO

General Blower Co Quality Materials Co United States Bock Wool Co Universal Insulating Co

#### BLOWERS, PORTABLE, ELEC-TRIC

SKIL CORP

## **BOARDS, DRAFTING** Hamilton Mfg Co KEUFFEL & ESSER CO WHITE (DAVID) CO

SULATING **BLOWERS, AIR** 

#### **BOARDS, GLASS CUTTING**

Barrett (Wm L) Co Fletcher Terry Co Glaziers Tool Mfg Co Heller (W C) & Co LUFKIN RULE CO Marvel Rack Mfg Co RED DEVIL TOOLS

Renco Sommer & Maca Glass Machinery Co Warner Mfg Co Warten (J D) Mfg Co

#### BOATS

Aluma Craft Boat Co Dillabaugh (C B) Boat Co HIGGINS INC HIGGINS INC Kalamazoo Canvas Boat Co Foothwest Mfg Co Winnter Mfg Co

#### BOILERS, STEAM & HOT WATER

ALDRICH CO DIV BREEZE CORP INC AMERICAN RADIATOR & STANDARD SANI-TARY CORP LANY CONF RATANT HEATER CO BRYANT HEATER CO BURNHAM CORF Cleveland Skeel Products Co Toridheet Div CRANE CO DELCO APPLIANCE DIV GENERAL MOTORS CORF Dewcy-Shepard Boiler Co DUNKIEK RADIATER CORP DUNKINK MADIATUR CORF Fitzgibons Boller Co SENERAL ELECTRIC CO AIR CONDITION-ING DEPT General Fittings Co Gibert & Barker Mfg Co Hedges-Walsh-Weidmer Co Heil Company International Heater Co Kevance Roller Corp Die American Badiator & Standard Sanitary Corp & Standar KONLER CO ROMLER CO Lookout Boiler & Mfg Co LYCOMING SPENCER DIV AVCO MFG COR CORP Montow R & Sons Mfg Corp National Radiator Co NDRGE HEAT DIV BORG-WARNER CORP Gilux Co Penn Boller & Burner Mfg Corp etraleum Heat & Power Co Quiet Automatic Oil Burner Corp. RICHMOND RADIATOR CO Seattle Bolling RICHMOND RADIATOR CO Seattle Bolter Wiss Smith (A 0) Corp Smith (H B) Co Surface Combustion Corp Thateher Furnace Co US 8 Radiator Corp Utes Radiator Corp Utes Radiator Corp Wate Refit BellERS INC Wate Refit BellERS INC Wayne Home Equipme Weil-McLain Co YORK-SNIPLEY INC

#### BOLTS, EXPANSION

Ackerman-Julinson Co Arro Expansion Bolt Co Chicago Expansion Bolt Co CORBIN (P & F) DIV AMERICAN MARD-WARE CORP

WARE CORP Holub Industries Inc PAINE CO Parker (S) Hidwe Mfg Corp Rawiping Co Inc Industrial Div Star Expansion Products Co Inc Stronghold Servey Products Inc U S Expansion Bolt Co

#### **BOLTS, STRUCTURAL**

P BOLLS, SIRUCIO Actor man-Johnson Co Arto Expansion Bolt Co Hiegos Expansion Bolt Co Heaton From & Steel Co Hannon & Expansion Bolt Co Fragma Mig Co Holub Industries Inc MoDR (GOODLOE E) CO PAINE COMPARY MOORE (GOODLOE E) CO PAINE COMPARY POINS (J D) Mig Co Rawiping Co Inc St Louis Screw & Bolt Co Star Expansion Bolt Co Sterling Bolt Co St Louis Serew & Boit Co Star Expansion Bolt Co Stornghold Serew Products Ine U S Expansion Bolt Co Williams Form Engineering Corp

#### BOLTS, TOGGLE

Ackerman-Johnson Co Arro Expansion Bolt Co Carpenter & Patterson Ine Chicago Expansion Bolt Co PAINE COMPANY Star Expansion Products Co oducts Co Inc Star Expansion Products C United Screw & Bolt Corp

BOLTS, "U" Atlas Bolt & Serew Co Buff-lo Bolt Co REPUBLIC STEEL CORP Seymour Mfg Co Inc Standard Turnbuckle Co

#### **BOOKS, BUILDING**

nical Society American Technical Society Audel (Theodore) & Co BOOK SERVICE DEPT AMERICAN BUILDER SIMMONS-BOARDMAN PUB CORP McGraw Hill Book Co MEREDITH PUBLISHING CORP METALDESTOS DIV WALLACE (WILLIAM)

WILEY (JOHN) & SONS INC

**BOOKS, ESTIMATING** BOOK SERVICE DEPT AMERICAN BUILDER SCOULD ME CONSTANLEY WORKS Tambfen

#### BOOKS, HOUSE DESIGNS, PLANS

BOOK SERVICE DEPT AMERICAN BUILDER SIMMONS-BOARDMAN PUB CORP REINHOLD PUBLISNING COMP WEYERHAEUSER SALES CO

#### BOOKS, LANDSCAPING SCOTT (0 M) & SONS CO

BOOKS, PRICE Dealers Price Book National Plan Service

## BRACES, BIT & DRILL,

HAND Economy Mfg Co Fiwale Equipment Mfg Co FORSBERG MFG CO Millers Falls Co Peck Stow & Wilcox Co Smith (Seymour) & Son STANLEY TOOLS DIV STANLEY WORKS

## **BRACKETS, CURTAIN** Alto Mfg Co Bay States Stamping Co Gould-Mersereau Co Inc

# BRACKETS, HAND RAIL CORBIN (P & F) DIV AMERICAN HAND-WARE CORP FRANZZ MFG CO Iyes (H B) Co LOCKWOOD NARDWARE MFG CO

Penn Hardware Co SARGENT & CO Skillman Hardwar dware Co

#### BRACKETS, ROOF

American Ladder Co ARTCRAFT GENAMENTAL IRON CO BELSON MFG CO CUATIS COMPANIES INC Flint (A W F Co Holm's Mig Co of Ohio Marvel Saujument Co Parton (N Elduc Mig Corp Batton (N Elduc Mig Corp Buez Mir Co Duez Mir Co Rugg Mfg Co STANLEY WORKS Tilley (John S) Ladders Co Inc WAGNER MFG CO

#### BRACKETS, SAWHORSE

Busch (A G) & Co Inc GRAND HAVEN STAMPED PRODUCTS CO GRAND MAVEN STAMPE Larson (Charles 0) Co M & M Wire Clamp Co Panellit Displays Inc Thomas Products Co Union Mfg & Gauge Co WAGNER MFG CO Wilson-Albrecht Co

#### BRACKETS, SHELF

AIR CONTROL PRODUCTS INC. Autorre Co Busch (A G) & Co The CORRIN (P & F) DIV AMERICAN HARD-WARE CORP FAMSCO MFG DIV FALLS STAMPING & WELDING CO FRANTZ MFG CO Geneso Tool Div General Warehouse Co Ine Geneso Tool Div General Warehouse Co Ine Geneso Tool Div General Warehouse Co Ine Griffin Mfg Co HAGER (C) & SONS HINGE MFG CO Heller (W.C) Co Heller (W C) Co Knape & Vogt Mfg Co Larson (Chas O) Co MACKLANBURG-DUNCAN CO MACKIANEUME-DUNCAN CO Miami Cabinet div Carey (Philip) MFG Co National Brass Co National Lock Co

NATIONAL MFG CO Parker (S) Hdwe Mfg Corp Reflector Hardware Corp SAMGENT & CO Slaymaker Lock Co STAMLEY WORKS Wilmac Metal Products

#### **BRACKETS, SINK**

American Foundry & Mig Co Griffin Mig Co Modern Iron Works Penn Hardware Co

#### BRACKETS, STUD Fiwale Equipment Mfg Co WAGNER MFG CO

BRACKETS, WALL P DRACKELS, WALL BUTLER (B B) MFS CO INC CORBIN (P & F) DIV AMERICAN HARD-WARE CORP Fluit (A W) Co Heiler (W C) & Co Ives (H B) Co Arvel Equipment Co Parker (S) Håve Mfg Corp Pass & Symour Inc Renco Standard Bronze Co Superior Plastics Div Commonwealth Plastics

Inc Valley Metal Products Warren (J D) Mfg Co

#### BRASS & COPPER, SHAPES

American Brass Co Anaconda Sales Co Bridgeport Brass Co Bridgeport Brass Co CHASE BRASS & COPPER CO CMASE BRASS & COPPER CO Hussey (C G) Co Michigan Copper & Brass Co Revere Copper & Brass Co Scoull Mfg Co Sherman (H B) Mfg Co Western Cartridge Co Div Olin Industries

#### BRICK, ACID-PROOF

Acme Brick Co Alliance Clay Products Co Sauereisen Cements Co Streator Brick Co Alliance Clay Products Co Satureisen Cements Co Streator Brick Co Summitville Face Brick Co Texas Brick Co U S Stoneware Co Washington Brick & Lime Co

#### BRICK, COMMON

Ablene Brick to Acme Brick to Acme Stude Brick Co Ada Brick Co Ada Brick Co Ada Brick Co Alabama Clay Products Co Allona Brick Co Baltimore Brick Co Baltimore Brick Co Baltimore Brick Co Baltimore Brick Co Builders Brick Co Brighamton Brick Co Bright Co Brisch Brick Co Builders Brick Co Builders Brick Co Builders Brick Co Builders Brick Co Cheraits Brick Co Cheraits Brick Co Chemistics Brick & Tile Co Charge Brick Co Colarers Brick Co Densities Brick Co Disclasses Co Densells Brick Co Abilene Brick Co Acme Brick Co Donnetly Brick Co Drury Brick Co Elgin-Butler Brick Co El Paso Brick Co Florida Georgia Brick & Tile Co Fraser Brick Co Frederick Brick Works Gaffney Brick Co General Clay Products Co Frederick Brick Works Gaffney Brick Co General Clay Products Co General Shale Products Corp Glen-Gery Brick Co Goodrich (W S) Inc Great Falls Brick Co Guiganad Brick Works Hope Brick Works Hope Brick Works Hombold Brick & Co Hydraulic Press Brick Co Joneshoro Brick Co Joneshoro Brick Co Joneshoro Brick Co Joneshoro Brick Co Jonesboro Brick Co Lav Vegas Brick Co Mason City Brick & Tile Co Matonal Fireproducts Co Multiflom Rick Co National Fireproduct Co Multiflom Rick Co Solitonal Fireproduct Co Multiflom Rick Co Solitonal Fireproduct Co Metropolitan Paving Brick Co National Fireproduct Co

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Richards Brick Co Richland Shale Products Co Sacramento Brick Co Bealcon Products Inco Shefficht Brick & Tile Co Simons Brick & Tile Co Simons Brick Brick & Tile Co Standard Brick & Tile Co Standard Brick & Tile Co Texas Brick for Yulean Tool Mfg Co Western Brick & Lime Co Western Brick & Supply Co West Vinicia Brick Co Yankee Hill Brick Mfg Co

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#### BRICK, ENAMELED

Acme Brick Co Arketex Ceramic Corp Clayeraft Co Hanley Co Hydraulic Press Brick Co National Fireproofing Co Stark Brick Co Washington Brick & Lime Co

#### BRICK, FACE

P BRICK, FACE Acme Brick Co Act Riek Co Act Riek Co Act Riek Co Act Riek Co Alton Brick Co Alton Brick Co Baltimore Brick Co Baltimore Brick Co Baltimore Brick Co Buddes Brick Co Buddes Brick Co Buddes Brick Co Chebalis Brick Co Chebalis Brick & Ch Chebalis Brick Co Chebalis Brick Co Chargan Fire Brick Co Chargan Fire Brick Co Colonial Clayeraft Co Colonial Clay Products Co Colonial Clay Products Co Columbia Brick Works Concord Brick Co Columbia Brick Works Concord Brick Co Crayeroft Brick Co Densmore Brick Co Denneet Brick Co Dunnelly Brick Co Drury Brick Co El Paso Brick Co El Paso Brick Co El Paso Brick Co Frans Brick Co Forestite Brick A Tile Co Frastet Brick Et Co Frastet Brick Co Gannon Clay Products Co General Shale Products Co Glenderry Brick Co Ginerat Falls Brick Co Guadum Russ Mr. Co Guadant Rick Works Hanveck Brick Co Gladdin: Bres Mr. Co Glen-Gery Brick Co Great Falls Brick Co Great Falls Brick Co Great Falls Brick Co Hanley Co Hattiesburg Brick Works However, Brick Ko Humbridt, Brick & Tile Co Humbridt, Brick & Tile Co International Brick Co Larded Brick Co Larded Brick Co Coden Prosed Brick Co Metropolitan Paring Brick Co Order Brick & Tile Co Lowell Clay Products Co Larded Brick & Tile Co Rombridt Brick & Tile Co Botton Brick & Tile Co Botton Prosed Brick Co Readingh Brick Co Bread Brick Co Barded Brick & Tile Co Botton Pross Brick Co Botton Pross Brick Co Botton Pross Brick Co Botton Pross Brick Co Botton Press Brick Co Sheridan Press Brick Co Sheridan Press Brick Co Streator Brick Co Summitville Face Brick Co Texas Brick Co Twin City Brick Co Verdigris Valley Vitrided Brick & Tile Co Washington Brick & Lime Co West Virginia Brick Co West Virginia Brick Co Western Brick & Supply Co Williamina City Products Co Yankee Hill Brick Mfg Co

#### BRICK, GLAZED

Acme Brick Co Arketex Ceramic Corp Binghamton Brick Co Inc Cambria Clay Products Co Clayeraft Co Claycraft Co Denver Sewer Pipe & Clay Co Elgin-Butler Brick Co Hanley Co Hydraulic Press Brick Co Metropolitan Paring Brick Co National Fireproofing Co Stark Brick Co Walsh Refractories Corp Washington Brick & Lime Co

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#### BRICK, NORMAN & ROMAN

Acme Brick Co Adel Clay Products Co Beldon Brick Co Beldon Erick Co Binghamton Brick Co Bulders Brick Co Chatham Brick Co Chechalis Brick & Tile Co Clayeraft Co Columbia Brick Works Consolidated Brick Co enhour (G W) & Sons enhour (G W) & Sons endrick Brick & Tile Co ingsland Clay Products Co endrick Kraftile Co Malvern Clay Co Metropolitan Brick Paving Co Midland Brick Co Midland Brick Co National Fireproofing Co. Sheridan Press Brick & Tile Co Standard Clay Mfg Co Washington Brick & Lime Co Wastontown Brick Co Western Clay Mfg Co Western Clay Mfg Co Whitacre-Greer Fireproofing Co Whitacre-Greer Fireproofing Co Yankee Hill Brick Mfg Co

#### BRICK, PAVING

Acme Brick, Co Alliance Clay Products Co Hocking Valley Brick Co Metropolitan Brick Paving Co Summittille Face Breik Co Washington Brick & Lime Co Western Brick & Supply Co

#### **BRICK, VENEER, SYNTHETIC** AMERICAN CEMENT PRODUCTS

#### BRIDGING, STEEL

Bethlehem Steel Co Cleveland Steel Specialty Co Davis & Siehl Co Donley Bro Dravo Cor Flash Bri or Mi Bros Co Corp Glover Mfg & Sales Co GREAT LAKES STEEL CORP STRAN-STEEL DIV n Ca DIV International Steel Co JUNIOR PRO PRODUCTS CO Lamebro Mfg Co Ine Met-Cro Specialties Co Ine REPUBLIC STEEL CORP Sheffield Steel Corp Soule Steel Co Sta-Tite Inc Union Metal Mfg Co Weatherbest Service Inc Welco Co

#### **BRUSHES, INDUSTRIAL**

Deror & Raynolds Inc Brush Div Goldblatt Tool Co Hilnois Puster & Brush Co Milwaukee Brush Mg Co National Brush Co Oshorn Mg Co PITTSBURGH PLATE GLASS CO PUMPAREN CO berset Co

#### **BRUSHES, PAINTERS'**

American Brush Mfg Co Baker Brush Co Berry Brothers Inc Berry Brothers Inc Devoce & Raynolds Inc Dufont (E 1) de Nemours & Co Felton Stibley & Co Inc Gildden Co Markwell Mfg Co Inc Newark Brush Co Parter Africe & Sons Co Pittrs BURCH PLATE GLASS CO BRUSH DIV Plasti-Ket Co Plasti-Kote Co Pollock Brush Co Purdy Brush Co Pushee (J C) & Sons Rubberset Co SHERWIN-WILLIAMS CO Star Brush Mfg Co United Brush Mfrs Whiting-Adams Co Wooster Brush Co

#### BRUSHES, PAPERHANGERS'

Baker Brush Co Devoe & Raynolds Inc Maendler Brush Mfg Co Inc Rubberset Co Wooster Brush Co

#### BRUSHES, ROOFING

Abeto Mig Corp Beatlinger Bros Chicago Brush Co Devoe & Raynolds Inc Empire Brush Works Hanlon & Goodman Co Milwaukee Brush Mig Co PITSBURGH PLATE GLASS CO BRUSH DIV Purdy Brush Co

APRIL 1953

#### BRUSHES, WINDOW

American Brush Mfg Co Chicago Brush Co Empire Brush Works Inc Michigan Brush Mfg Co PITTSBURGH PLATE GLASS CO BRUSH DIV

#### **BUCKETS, CLAMSHELL**

Blaw-Knox Div Blaw-Knox Co Haiss (George) Mfg Co Inc. Div Pettibone Haiss (George) Mrg Co Inc. Mulliken Corp WARNISCHFEGER CORP Jeffrey Mrg Co Johnson (C S) Co Link-Beit Co Orton Crane & Shorel Co Pettibone Mulliken Corp Silent Hoist & Crane Co

#### **BUCKETS, CONCRETE**

Blaw-Knox Div Blaw-Knox Co Haiss (George) Mfg Co Inc Div Pettibone Mulliken Corp. Johnson (C S) Co MULLER MACHINERY CO INC Owen Bucket Co Wheeling Corrugating Co

#### **BUILDINGS, METAL**

American Bridge Co Armco Drainage & Metal Products Inc Blaw-Knox Div Blaw-Knox Co Butler Mfg Co Edwards Mfg Co Edwards Mfg Co General Implement Corp International Steel Co Luria Engineering Corp Macomber Inc MESKER (GEORGE L) STEEL CORP MESKER (GEUNGE L) STEEL CONF New Holland Metals Co Pioneer Co Southern Rates Iron Reofing Co STEELCRAFT MFG CO STEELCRAFT DIV Gmat Lakes Steel Corp TRUSCOM STEEL CO UNITED STEEL FABRICATORS INC

#### **BULLDOZERS**

ALLIS-CHALMERS MFG CO TRACTOR DIV American Tractor Corporation ALLES-CHALMERS MFG CO 1 American Tractor Corporation ABC CORP BUCYPHOSE REFIE CO Caterpillar Tractor Co Hough (Frank G) Inc LitomFrauk (E G) Inc Micromobile Manufacturers OLIVER CORP CLETRAC DIV Trackson Co

# **BURNERS, GAS**

r DURITERJ, CAJ ALDRICH CO DIV BREZE CORP INC AMERICAN RADIATOR & STANDARD SANI-TARY CORP Anchor Div Stratton & Tentegge Co Inc Armstrong Furnace Co Bather Gas Burner Co Bath Mr Co Barber Gas Burner Co Bard Mfg Co BRYANT HEATER DIV AFFILIATED GAS EQUIPMENT INC

Century Engineering Corp CHATTANOGA IMPLEMENT & MFG CO Cleveland Steel Products Co Toridheet Div Conco Engineering Works Div Conkey (II D) Co Co Coroaire Heating Corp CRANE CO DELCO APPLIANCE DIV GENERAL MOTORS CORP General Automatic Products Corp

General Automatic Pr Hauek Mfg Co Heil Company Henry Furnace Co Holland Furnace Co Autory Further Co Hugersoil Products Div Borg-Warner Corp International Oil Burner Co Iron Fireman Co Lackson & Church Co Ko-Z-Air Inc Lennox Furnace Co Little STIC CO Burner Co MUELLER (C J) FURMACE CO National Atroil Burner Co National Atroil Burner Co Northwark Reductor Co Oliux Co Penn Boller & Burner Mfg Co Quen, Store Works Inc REZMOR, MFG CO Queen Stove Works In REZNOR MFG CO Rybolt Heater Co Simplex Oil Heating Corp Surface Combustion Corp TEMCO INC Thetelier Furnece Ca Wayne Home Equipment Co Will-Burt Co

Will-Burt Co WILLIAMSON HEATER CO Zurn (J A) Mfg Co

#### **BURNERS, OIL** Aeroil Products Co Inc.

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

AIRTEMP DIV CHRYSLER CORP ALDRICH CO DIV BREEZE CORP INC AMERICAN RADIATOR & STANDARD SANI-TARY CORP Achor Div Stratton & Terstegge Co Ine Armstrong Furnace Co Eard Mig Co Armstrong Furnace Co Bard Mfg Co Chalmers Oil Burner Co CHAYSLER CORP OF AIRTEMP DIV Cleveland Steel Products Co Combustioneer Div Steel Products Engineering Co Engineering Works Div Conkey (H D) Co 0. Conco Engineering Works Div Conkey (H D) Co Coroaire Heating Corp CRAME CO DELCO APPLIANCE DIV GENERAL NOTORS SALES CORP Duo-Therm Div Motor Wheel Corp Fairbanks Morse & Co Fluid Heat Div Anchor Post Products Ine Franklin Oil Heating Inc General Automatic Products Corp ESENERAL ELECTRIC CO AIR CONDITION-ING DEPT General Dividing Corp GENERAL ELECTRIC CO AIR CO ING DEP. General Cullifies Corp Gentor May Corp Gilbert & Barker Mfg Co Harvey-Whipple Ine Harvey-Whipple Ine Heil Co Henry Furnace Co Iron Fireman Mfg Co Jackson & Church JOHNSON (S T) CO Kol-Master Corp Ko-Z-Air Ine Kresky Mfg Co Lennox Furnace Co Lennox Furnace Co Little (H C) Burner Co MAJESTIC CO MAS OIL BURNER Co Sational Alford BURNER Co National Airoil Burner Co NORGE HEAT DIV BORG-WARNER CORP Oilux Co Paragon Utilitles Corp Penn Boiler & Burner Mfg Corp Perfection Stove Co Persiro Mfg Corp Petroleum Heat & Power Co Petroleum Heat & Power Co Quaker Mfg Co Quiet Automatic Burner Corp Bay Oil Burner Co Ray Oil Burner Co Silent Corp Silent Automatic Corp Silent Glow Oil Burner Co Silent Glow Oil Burner Corp Silent Sioux Oil Burner Corp TIMKEN SILENT AUTOMATIC DIV TIM-KEN-DETROIT AXLE CO US Machine Corp Viking Mfg Corp Viking Mfg Corp Viking Mfg Corp Will-Burt Co Will-Burt Co Will-Burt Co Will-Burt Co Williams Oil-O-Matte Div Eureka-Williams Co WILLIAMSON HEATER CO YORK-SHIPLEY INC

#### **BUSINESS SYSTEMS &** FORMS

FORMS Acme Visible Records Inc Ajax Time Stamp Co Burroughs Adding Machine Co Calculataraph Co Delbridge Calculating Systems Inc Diek (A B Co Diebold Inc Eqry Register Co Felt & Tarrant Mfg Co Felton Sibley & Co Inc Fridon Calculating Machine Co Inc Hamilton Autographic Register Co International Business Machines Corp Marchant Calculating Machine Co Inc MeCaskey Register Co MeCaskey Register Co Moore Business Forma Inc Moore Calculating Machine Co Inc Moore Business Forma Inc Moore Calculating Machine Co Retiness Forma Inc Moore Business Forma Inc Moore Business Forma Inc Monte Calculating Machine Co Retine Safe Co Reserved Co Retine Calculating Machine Co Retine Calculation Machine Co Retine Calculating Machine Co Retine Calculating Machine Co Retine Calculation Co Ret Calculation Co Retine Calculation REMINGTON RAND INC Sorvall (Ivan) Co Standard Hegister Co Tallman Robbins & Co Todd Co Inc Uarco Inc Victor Adding Machine Co Vistored Inc

CABINETS, HOUSEHOLD ATR CONTROL PRODUCTS INC AMERICAN CENTRAL DIY AYCO MFG CO ATLAS PLYWOOD CORP BERGER MFG CO DIY REPUBLIC STEEL CARR ADAMS & COLLIER CO COLE MIZ CO CARR ADAMS & COLLIER CO Cole Mfg Corp Folgate Mfg Corp Curvis Companies inc Excel Metal Cabinet Co Inc Faricy & Latesher Mfg Co Appliance & MERCHANDISE DEF MERCHANDISE General Panel Corp Gold Seal Mfg Co GREGG & SON

GROTE MFG CO INC Harrison Steel Cabinet Co HUBENY BROTHERS INC Ideal Co Kenarobe KITCHEN-MAID CORP Kraus (Walter S) Co LONG-BELL LUMBER CO LONG-SELL LUMBER CO Lyon Metal Products Inc Marquart Millwork Co Midwest Mig Co Morgan Co MULLINS MFG COAP Mutschier Bros Nasco Wood Products Inc Parlson Utilities Corp Boyalmaid Kitchen Corp Soneac Lauber & Millwork Co Shirley Corp Spokane Samb & Door Co Shirley Corp Spokane Sash & Door Co TRACY MFG CO DIV EDGEWATER STEEL CO WASHINGTON STEEL PRODUCTS INC Whitehead Metal Prods Co Inc

#### CABLES, INSULATED

American Conduit Co American Conduit Co Amaconda Wire & Cable Co Boston Insulated Wire & Cable Co CHASE BRASS & COPPER CO GENERAL ELECTRIC CO CONSTRUCTION MATERIALS DEPT OKONITE CO TENNESSEE COAL IRON & RAILROAD CO

#### CABLES, CRANE

American Cable Div American Chain & Cable American Cable Div American Con Co AMERICAN STEEL & WIRE CO Broderick & Baseom Rope Co Fischer & Hayes Rope & Steel Co MacWhyte Co Roebling's (John A) Sons Ce

#### CALCHMINE

P LALLMIINE Chicago Bronze & Color Works Deros & Baymolds Inc Fost (M Ering) Co Inc Glidden Co Lucas (John) & Co Inc Moore (Benjamin) & Co Carbola Chemical Co Muraio Co Inc Mational GYPSUM CO PITTSBURCH PLATE GLASS CO Reardon Co Reardon Co Tamms Industries Inc U S Kalsomine Co U S Kalsomine Co Wadsworth-Howland & Co Wesco Waterpaints Inc

#### **CALCIUM CHLORIDE**

Allen (W D) Mfg Co American Cyanamid Co Camp Chemical Co Columbia Chemical Division Pittsburgh Plate Glass Co Clines do local Princip Princip Prince Dev Chemical Co Duront (E 1) de Nemours & Co Gordon (George C) Chemical Co Horn (A C) Co Inc Pennsylvania Saitt Mig Co PITTSBURCH PLATE GLASS CO SOLVAY PROCESS DIV ALLIED CHEMICAL & DVE CORP Tamms Industries Inc Vita-NCO

#### CANVAS, CANVAS PROD-UCTS

UCTS American Tent & Awning Co Astrup Co Benis Bros Bag Co Canvas Products Co Canvas Specialty Co Cifton Mfg Co DANIELS (C R) INC Pulton Bag & Cotton Mills Johnson (J W) Co New York Prop Cloth Mfg Co Ine Stander (Mr W) Co Ine Troy Sunshade Co Tucker Duck & Rubber Co Wetner Canvas Products Co

#### ► CARPETING

Bigelow-Sanford Carpet Co Inc Hood Rubher Co Div Goodrich (B F) & Co Mohawk Carpet Mills Inc

#### CAR PUSHERS

Advance Car Mover Co Clyde Iron Works Inc Franklin Equipment Co Hyster Co Jeffrey Mfg Co KEWANEE MFG CO OLIVER CORP CLETRAC DIV Renco Silent Hoist & Crane Co Stophons-Adamson Mfg Co

Taliman Mfg Co Whiting Corp

#### CARRIERS, HAND, BRICK, TILE & BLOCK

Adams Co Block-Lift Co Builders Material Inc Builders Material In Donley Brothers Fuller Mfg Co Goldblatt Tool Co James Mfg Co KEWANEE MFG CO Swett (A L) Iron Works Vulcan Tool Mfg Co

CARTS, GARDEN INLAND STEEL PRODUCTS CO Masters Planter Co

#### CARTS, MATERIAL HANDLING

Ramett Industries CONSTRUCTION MACHINERY SALES CO INLAND STEEL PRODUCTS CO Landing Co Nutting Truck & Caster Co Inc Service Caster & Truck Corn WORTHINGTON CORP CONSTRUCTION EQUIPMENT SALES DIV

#### CASING, METAL

AETNA STEEL PRODUCTS CORP Alahama Metal Lath Co BOSTWICK STEEL LATH CO CECO STEEL PRODUCTS CO Croft Steel Products Co Fortemits Products Co Fortemits Metal Lath Co INLAND STEEL PRODUCTS CO STEELCRAFT NFG CO PENN NETSEL CO U S GYPSUM CO Wollneger Steel Corp Div Actua Steel Produ Corp Com

#### CAULKING COMPOUNDS

Abesto Mfg Corp AMERICAN ASPHALT ROOF CORP Anti-Hydro Waterproofing Co ialtz (R N) & Co arland Weatherstrip Material Co Biddle Co Briggs-Maroney Co Inc CALBAR PAINT & VARNISH CO CAREY (PHILIP) MFG CO CENTRAL METAL STRIP CO Waterproofin fing Corr Christy Co Inc Columbia Chemical DIV PITTSBURGH PLATE GLASS CO PLATE GLASS CO Continental Abectos & Refining Co Dad & Lad Co Dennis (W J) & Co Dennis (W J) & Co Denne & Raynolds Inc Donley Brothers Eagle-Picher Co Elliott Paint & Varnish Co Felton Siblery & Co Inc FLIMTKOFE CO Fort Pitt Chem Co Gibson-Homans Co Gibden Co Glidden Co Goldblatt Tool Co Gumputtie Laboratories Harris Inc Harrop Chemical Co Horn (A C) Co Inc. JOHNS-MANVILLE CORP. Keystone Asphalt Products Co Landen Putty Works Lasting Products Co MACKLANBURG-DUNCAN CO Mar-Kay Mfg Co MARSH WALL PRODUCTS INC Mining & Mfg Co Minwas Co Toe Minwas Co Toe Minwas Co Toe Moore (Goolloe E) Co Mortell (J W) Co Parker (Ira) & Sons Perora Paint Co Tue Pittsburgh Plate Glass Co Nietie Products Co Plastic Products Co Pressitic Engineering Co Quigley Co Inc Ranetitic Mfg Co Robbins Mfg Co Schalk Chemical Co Scalas Chemical Co Scalas Plastics Corp Scal-Rite Caulking Co Inc Swooth On Wfs Co Smooth-On Mfg Co Sonneborn (L) & Sons Inc Spray-O-Bond Co STANDARD DRY WALL PRODUCTS INC. Steelcote Mfg Co STERLING PAINT & VARMISH CO Sullivan Co Tamms Industries Inc Tremco Mfg Co Truscon Laboratories Div Devoe & Raynolds Co Inc Vital Mfg Co Wallace Mfg Co Webster (W F) Cement Co X-Pando Corp ZEGERS INC

#### CAULKING, PRE-MOLDED FARRICATED PRODUCTS CO INC.

stite Engir ering Co CEILINGS. METAL

P CEILINGS, METAL ARMSTRONG CORK CO Compo-Miracle Products Co Continental Steal Corp Edwards Mig Co FENSITA RUILDING PRODUCTS Hauserman (E F) Co International Steal Co Klauer Mig Co Mahon (E C) Co REYMOLDS METALS CO BUILDING PROD-UCTS DIV Wheeking Corrugating Co

#### CEILINGS, SUSPENDED

Lok-Products Co Sapymetal Products Inc. Nailock Div

#### CEMENT, ACIDPROOF

American Fluresit Co JOHNS-MANVILLE CORP Nukem Products Corp PECORA PAINT CO INC. Clay Product Tuffair Inc UNIVERSAL ATLAS CEMENT CO

#### CEMENT, ASBESTOS

Abesto Mfg Corp Acme Asbestos Covering & Flooring Co American ASPHALT ROOF CO Asbestos Asphalt & Insulation Inc Mfg C AMERICAN ASPHALT ROOF Asbestos Asphalt & Insulatio Borden Co Chemical Div CAREY (PHILIP) MFG CO Clinton Metallic Paint Co Curtis Mfg & Asbestos Co Curtis Mfg & A FLINTKOTE CO Hota (A C) Co Inc Inhland Steel Products CO Johns-Manville Corp Keasbey & Mattison Co Lehon Co MOORE (GOODLOE E) CO MOORE (GODLOE E) CO PACO Products Inc PECERA PAINT CO INC Plibrico Jointess Firebrick Co RUBER01D CO RUBANTE Clay Co Seaboard Plastics Corp Standard Asbeston Mfg Co TEXAS CO

#### CEMENT, CANVAS orden Co Chemical Div bristy Co Inc

lineral Pigments Corp IIRACLE ADHESIVES CORP IOORE (GOODLOE E) CO

#### CEMENT, HOUSEHOLD RE-PAIR

Borden Co Chemical Div Boyle-Midway Inc CERTAIN-TEED PRODUCTS CORP Consumers Glue Co DuPont (E 1) de Nemours & Co Howe & French Inc Lake Chemical Co Laber Construction of the second seco

#### CEMENT, KEENE'S

CELOTEX CORP CERTAIN-TEED PRODUCTS CORP NATIONAL GYPSUM CO U S GYPSUM CO Woodville Lime Co

#### CEMENT, MASONRY

Alpha Portland Cement Co Calaveras Cement Co Carney Co Inc GENERAL PORTLAND CEMENT CO Hawkeye Portland Cement Co Lohigh Portland Cement Co LONE STAR CEMENT CORP LOUISVILLE CEMENT OF MARQUETTE CEMENT MFG CO MEDUSA PORTLAND CEMENT CO Missouri Portland Cement Co National Mortar and Supply of North American Cement Corp v Co Prerless Cement Corp PITTSBURGH PLATE GLASS CO Riverton Lime & Stone Co Ine Sakrete Inc Southern Cement Co Standard Lime & Stone Co

TRINITY PORTLAND CEMENT DIV GEN-ERAL PORTLAND CEMENT CO U S GYPSUM CO UNIVERSAL ATLAS CEMENT\_CO Wolverine Portland Woodville Lime Co X-Pando Corp Cement

## CEMENT, NON-STAINING

Borden Co Chemical Div Louisville Cement Co Meousa Portland Cement Co Pittsburgh Plate Glass Co Trinity Portland Cement Co General Portland Cement Co Universal Atlas Cement Co

#### CEMENT, PORTLAND

Alpha Portland Cement Co Ash Grore Lime Portland Cement Co Blue Diamond Corp Calaveras Cement Co Consolidated Cement Co Consolidated Cement Co Consolidated Cement Co Dewer Portland Cement Co Dewer Portland Cement Dir General Port-Florida Portland Cement Dir General Port-EENERAL PORTLAND CEMENT CO Liwekeye Portland Cement Co Hawkeye Portland Cement Co Hermitage Portland Cement Co Likeal Cement Co Colorado Por stland Dis KAISER ALUMINUM & CHEMICAL SALES INC Smos Portland Cement Co Ke

Kosmos Portland Cement Co Letigh Portland Cement Co LONE STAR CEMENT CORP LOUISVILLE CEMENT CO MEDUSA PORTLAND CEMENT CO MISSOUR PORTLAND CEMENT CO Nissour Portland Cement Co Pacific Portland Cement Co Peerless Cement Corp Peerless Cement Corp Pennsylvania-Dixie Cement Comp PITTSBURGH PLATE GLASS CO Standard Lime & Stone Co TRINITY PORTLAND CEMENT DIV GEN-ERAL PORTLAND CEMENT CO UNIVERSAL ATLAS CEMENT CO Weilwrine Portland Cement Co

#### CEMENT, PORTLAND, AIR-ENTRAINING

Alpha Portland Cement Co GEMERAL PORTLAND CEMENT CO LOME STAR CEMENT CORP LOUISVILLE CEMENT CO MARQUETTE CEMENT MFG CO MEDUSA PORTLAND CEMENT CO North American Coment Corp Trinity Portland Cement Co DIV GEN-Eral Portland Cement Co UNIVERSAL ATLAS CEMENT CO

### CEMENT, PORTLAND, GRAY,

# WATERPROOF

Calaveras Cement Co LOUISVILLE CEMENT CO MEDUSA PORTLAND CEMENT CO PITTSBURGH PLATE GLASS CO Standard Lime & Stone Co Wolverine Portland Cement Co

#### CEMENT, PORTLAND, HIGH **EARLY STRENGTH**

Alpha Portland Cement Co Calaveras Cement Co Lehigh Portland Cement Co LONE STAR CEMENT CORP LOUISVILLE CEMENT COR MARQUETTE CEMENT MFG CO MEDUSA PORTLAND CEMENT CO Missouri Portland Cement Co Pacific Portland Cement Cop Pacific Portland Cement Co

erless Cement Corn PITTSBURGH PLATE GLASS CO Co TRINITY PORTLAND CEMENT DIV GEN-ERAL PORTLAND CEMENT DIV GEN-UNIVERSAL ATLAS CEMENT CO

#### CEMENT, PORTLAND, WHITE

Calaxeras Cement Co Gereral Portland Cement Co Medusa Portland Cement Co Trinity Portland Cement Div Gen-Eral Portland Cement Co Universal Atlas Cement Co

#### CEMENT, PORTLAND, WHITE WATERPROOFED

## MEDUSA PORTLAND CEMENT CO PITTSBURGH PLATE GLASS CO

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

TRINITY PORTLAND CEMENT DIV GEN-Eral Portland Cement Co Universal Atlas Cement Co

#### CEMENT, ROOFING

Mfg C Acme Asbestos Covering & Flooring Co Armstrong Co BARRETT DIV ALLIED CHEMICAL & DYE ¢\*

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CORP BIRD & SON INC CAREY (PHILIP) MFG CO CELOTEX CORP CELOTEX CORP CELOTEX CORP Ceresit Waterproofing Corp CERTAIN-TEED PRODUCTS CORP Clinton Metallic Paint Co Coupers Creck Chemical Corp Curtis Mig Aslostos Co Indó & Lad Co Dende A ada Co Hendey Brothers Elliott Prothers Elliott Prothers

Donley Brothers Elliott Paint & Varnish Co FLINTKOTE CO Home Pi durate Co. Cib

# Globen-Homans Co Globe Paint Works Inc Harrison Paint & Varnish Co Horn (A C) Co Inc INLAND STEEL PRODUCTS CO JOHNS-MANVILLE CORP KEASBEY & MATTISON CO Keystone Asphalt Products Co

Koppers Co Pabeo Products Inc PECORA PAINT CO INC PECORA PAINT CO INC PITTSBURGM PLATE GLASS CO RULERADIO CLAP CO Sendoard Plattics Corp Servicised Products Corp Sounchorn (L) & Sons Inc Sterlote Mfg Co Stellote Mfg Co Sullivan Co TEXAS CO Truscon Laboratories Div Devoe & Raynoids Inc United Gilsonite Laboratories United Gilsonite Laboratories

Cement Co

#### CEMENT, RUBBER

Alabastine Paint Prods Div Chicago Bronze & Color Works Alabastine Paint Prode Div Ch & Color Works Broadway Rubher Mig Co Cressent Products Of Co Generation B Fi Co Kullis (H B Fred) Las-Stik Mig Co LePage's Ine Minnesota Mining & Mig Co Minnesota Mining & Mig Co Minnesota GooDLOE E) CO National Adhesives Div Nat Products Ine Paisley Products Ine Paisley Products Ine Paisley Products Ine Paisley Products Ine Paister (S) Hidwe Mig Co Placo Div Paisley Products Ine Standard Paisley Achestos Co U S PLYWOD CORP U S Rubher Co Weister (W F) Coment Co Williams Products Co Ine

National Starch

## **CEMENT, TILE**

American-Olean Tile Co ARMSTRONG CORK CO Borden Co Chemical Boyle-Midway Inc Davis Plywood Corp Dicks-Pontius Co Dicks-Pontius Co Haves Adhesives Co MARSH WALL PRODUCTS INC MEDUSA PORTLAND CEMENT CO Minnesota Mining & Mig Co Miracle Adhesives corp Moore (GODDLOE E) Paisley Products Inc PECORA PAINT CO INC

Plastic Products Co PRESTILE MFG CO Reardon Co Schalk Chemical Co Schalk Chemical Co Standard Paste & Giue Co Standard Paste & Giue Co Stelectet Mig Co Superior Plastics Div Commonwealth Plastics Superior Inc Technical Supply Co Tilette Cement Co Inc Wallace Mfg Co Wallace Mfg Co

CEMENT, WALLBOARD JOINT

CELOTEX CORP CERTAIN-TEED PRODUCTS CORP MIRACLE ADHESIVES CORP NATIONAL GYPSUM CO PITTSBURGH PLATE GLASS CO U S GYPSUM CO Wesco Waterpaints Inc

#### CEMENT, WATERPROOFING esto Mfg Corp

Adensite Co American Fluresit Co

AMERICAN BUILDER

Anti-Hydro Waterproofing Co Anti-Hydro Waterproofing Co Armor Laboratories Inc BARRETT DIV ALLIED CHEMICAL & DYE CORP BIRD & SON INC CAREY (PHILIP) NFG CO CAREY (PHILLP) MFG CO Ceresit Waterproding Corp Chicago Bronze & Color Works Du Pont (E I) de Nemours & Co Ine Firstone Tire & Rubber Co FLINTKOIE CO GENERAL PORTLAND CEMENT CO Horn (A C) Co Inc JOHNS-MANVILLE CORP Coppers Co Lastik Products Co Inc Lastik Products to Lehon Co LOUISVILLE CEMENT CO MARSH WALL PRODUCTS INC MEDUSA PORTLAND CEMENT MIRACLE ADHESIVES CORP MIRACLE ADHESIVES CORP C.0 N-tion-1 Guard Products PECORA PAINT CO INC Rametite Mfg Co Scaleon Products Inc Spunoth-On Mfg Co STANDARD DRY WALL PRODUCTS INC Steeleote Mfg Co Sullivan Co ductrice Inc Tamms Ind TEXAS CO Toch Brothers Inc Truscon Laboratories Div Devoe & Raynolds Inc Webb Products Co Inc X-Pando Corp

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#### CHAINS, SASH

American Chain & Cable Co Inc Bridgeport Chain & Mfg Co Campbell Chain Co CHASE BRASS & COPPER CO Cleveland Chain & Mfg Co CORBIN (P & F) DIV AMERICAN HARD-WARE CORP Warks Hodell Chain Co LOCKWOOD HARDWARE MFG CO Taylor (S G) Chain Co TURNER & SEYMOUR MFG CO Western Chain Co Western Foundry Co

#### **CHALK LINES**

▶ CHALK LINES Hrownell & Co Carpenter (Gorge B) & Co Celarberg Mg Co Cleveland Mill & Poser Co Goldding (B F) & Co Goldblatt Tool Co Goldblatt Tool Co Goldblatt Tool Co Goldblatt R Co Evaluet Mg Co SAMSON CORDAGE WORKS Temensese Line & Twine Co Turner & Nanton Co Warner Mig Co

#### **CHIMNEY CAPS**

Acme Brick Co Adams Co American Vitrified Products Co American Virtues roomes Co Boserton State Co Boserton State Co Protoe Mfg Co Dickey IW Si Clay Mfg Co Evans Pipe Co Houston Biow Pipe & Shevt Metal Works INLAND STEEL PRODUCTS CO Ivan Bros Lice Man Bros Line Action Maple City Furnace Co NATIONAL CLAY PIPE MFRS INC Northwestern Terra Cotta Co Pacific Clay Products Penn Supply & Metal Corp Penn Supply & Metal Corp Perma-Top Co Quinn Wire & Iron Works Robinson Clay Product Co Robinson & Sons Sewer Pipe Co Sterling Foundry Co Stillwater Clay Products Co Stillwater Clay Products Co What Cheer Clay Products Co

#### ► CHISELS

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P CHIELS American Swiss File & Tool Co Earcala Mfg Co Bridgeport Hardware Mfg Corp Champion-De Arment Tool Co Cherenand Steel Tool Co Cleveland Steel Products Corp Delaware Steel Products Corp Distano (Henry) & Sons Ince Fairmount Tool & Forging Co Fuller Tool Co Disaten (Henry) & Sons Inc Farmount Tool & Forging Co Farmount Tool & Forging Co Geneso Tool Div General Steel Warehouse Co Goldhiatt Tool Co Hieler Brothers Hood Brothers Lectonia Tool Co Heaphisto Tool Co Inc Mightes Falls Co Wasteum Tool Co Inc Milers Falls Co Wasteum Tool Co Prek Stow & Wilcox Co Flumb (Fagetic R) Inc

Proto Tool Co Rainey-Tools STANLEY TOOLS DIV STANLEY WORKS STANLEY TOOLS DIV STAN Union Hardware Co Vichek Tool Co Vulcan Tool Mfg Co Wilde Drop Forge & Tool Co Winsted Edge Tool Works Woodings-Verona Tool Works

### CHUTES, COAL

Allen Steel Products Inc. Brady Conveyors Corp COPCO STEEL & ENGINEERING CO catur Iron & S uley Brothers briel Steel Co Gabriel Steel Co Harris Inc Houston Blow Pipe & Sheet Metal Works Industrial Iron Works Johnson Industries Inc Klauer Mig Co Lippmann Engineering Works Lippmann Engineering Works MAJESTIC CO MULLER MACHINERY CO INC Peerless Mfg Co Richmond Engineering Co VENTO STEEL PRODUCTS CO INC

#### CHUTES, DUST

AIR CONTROL PRODUCTS INC Allen Steel Products Allington & Curtis Mfg Co Harris Inc Kluegel (Ernest) & Co

## CHUTES, LAUNDRY

AIR CONTROL PRODUCTS INC COPCO STEEL & ENGINEERING CO Cox (H F) & Co Donley Brot Gabriel Steel Co Haslett Chute & Conveyor Co Kluegel (Ernest) & Co Miami Cabinet Div Cary (Philip) Mfg Co

#### CIRCUIT BREAKERS

Adam (Frank) Electric Co Arrow Hart & Hegeman Electric Co BULLOOG ELECTRIC PRODUCTS CO Federal Electric Products Co Hathaway & Co Trumbull Electric Mfg Co WESTINGHOUSE ELECTRIC CORP

**CIRCULATORS, HOT WATER HEATING SYSTEMS** BELL & GOSSETT CO Taco Heaters Inc THRUSH (M A) & CO

## CLAMPS, "C"

Adjustable Clamp Co Armstrong Brothers Tool Co Armstrong Brothers Tool Co Batavia Clamp Co Inc Black Brothers Inc Burson Clin System Inc Carpenter & Patterson Inc Cincinnati Tool Co Handy Mfg Co Littlestown HCO SARGENT & CO SARGENT & CO SYRactuse Alloy Metals Corp

## CLAMPS, CARPENTER STEEL

BAR Adjustable Clamp Co Batavia Clamp Co Inc Black Brothers Inc Cincinnati Tool Co Eberhard Mfg Co Div Eastern Malleable Iron Co Handy Mfg Co Hartford Clamp Co Malicable Iron Fittings Co Phoenix Hardware Mfg Co Taylor (James L) Mfg Co

#### CLAMPS, CONCRETE CON-STRUCTION

SINUL Clamp Co Batavia Clamp Co Inc Cincinnati Tool Co Fischer & Hayes Rope & Steel Co M & M Wire Clamp Co Michmond Serew Anchor Co Star Expansion Products Co Inc Envirenal Form Clamp Co Williams Form Engineering Corp

#### CLAMPS, FILING

Adjustable Clamp Co Atkins (E C) Div Borg Warner Co. Disston (Henry) & Sons Hanchett Mfg Co SARGENT & CO

#### CLAMPS, STEEL BRIGGS MEG CO

#### CLAMPS, WOODWORKERS'

Adjustable Clamp Co Armstrong Brothers Tool Co Batavia Clamp Co Inc Black Brothers Inc Cincinnati Tool Co Eherhard Mfg Co Div Eastern Malleable Iron Electuard Mfg Co Div Easter Co Grand Specialties Co Hautdy Mfg Co Hautford Clamp Co Malleable Iron Fittings Co SARCENT & CO Starrett (L.S) Co Taylor (James L) Mfg Co Union Tool Co

#### CLEANERS, HAND

CABOT (SAMUEL) & CO INC Glidden Co MIRACLE ADHESIVES CORP ical Co Speco Inc Technical Development Laboratories

#### CLEANERS, PAINT BRUSH

Bengal Co Boston Varnish Co Boyer Chemical Laboratory Co Boyle-Midway Inc noyer treating Laboratory Co Boyle Midway Inc Brings Maroney Co Inc CABOT (SANUEL) & CO INC Christy Co Inc Cleveland Clevener & Paste Co Commercial Solvents Corp Constituer (II B) Co Fuller (II B) Co Siliden Co Kleen Chemicel Co Meinhardt (J A) & Co Patent Cereals Co Penetone Co Penetone Co PITTSBURGH PLATE GLASS CO Portable Electric Tools Inc RED DEVIL TOOLS Savogran Co Schalk Chemical Co Sheffield Bronze & Paint Corp Steeleute Mfs Co STERLING PAINT & VARNISH CO Tamms Industries Inc United Glisonite Laboratories Wisconsin Laboratories Inc

#### CLEANERS, PAINT BRUSH, ELECTRIC

Nashway Mfg Co Portable Electric Tools Inc RED DEVIL TOOLS

#### CLEANERS, PAINT & VAR-NISH

RUDT Boyle-Midway Ine Carbona Products Co Christy Co Ine DuPont (E I) de Nemours & Co Economics Laboratory Ine Ethyl Corp Glidden Co Lowe Bros Pacific Chemical Co Patent Cereals Co PITTSBURGH PLATE GLASS CO Protest & Gamble Co Protect & Gamble Co Savogran Co Schafk Chemical Co Scheffield Bronze & Paint Corp Socony-Vacuum Oil Co Sullivan Co Tamms Industries Ine Wesco Waterpaints Ine

## CLIPS, BRIDGING & JOISTS,

STEEL Bethlehem Steel Co Soule Steel Co TRUSCON STEEL CO

#### CLIPS, CONCRETE

American Expansion Bolt & Mfg Co CECO STEEL PRODUCTS CORP aith Metal Lath Co ann Building Products Co ekmann PETERSON PRODUCTS CO Bichmond Serew Anchor Co Sommer Metaleraft Co Union Steel Froducts Co Williams Forn Engineering Corp Winner Industries

#### Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

#### CLIPS. FLOOR

Merwin Mfg Co PERN METAL CO INC STEELCRAFT MFG CO

CLIPS, GLAZING FOR STEEL SASH

Adams Co CECO STEEL PRODUCTS CO COPCO STEEL & ENGINEERING CO Donley Bros Co Gabriel Steel Co Kapris Inc KEWANEE MFG CO LIBBY-OWENS-FORD GLASS CO PITTSBURCH PLATE GLASS CO Sommer Metalcraft Corp Young (L A) Spring & Wire Corp

#### CLIPS, PLASTERBOARD LATH, CEILING, ACOUSTICAL TILE

Burson Clip System Ine E G Building Fasteners Corp U S GYPSUM CO

#### CLIPS, PLASTER LATH.

SPRING PENN METAL CO INC. Soule Strei Co

CLIPS, ROOFING CECO STEEL PRODUCTS COMP Goldsmith Metal Lath Co INLAND STEEL PRODUCTS CO NOVA SALES CO Olijak Mig Co Ryvremu (Jaceph T) & Son iljak Mfg Co yerson (Juseph T) & Son eal-All Clip Co

#### CLIPS, WALLBOARD & CEIL-ING TILE

E G Building Fasteners Corp INSULITE CO DIV MINNESOTA & ONTARIO PAPER CO UPSON CO WOOD CONVERSION CO

#### CLIPS, WIRE ROPE

American Hoist & Derrick Co AMERICAN STEEL & WIRE CO Roebling's (John A) Sons Co Upson-Walton Co WICKWIRE SPENCER STEEL DIV COLO-RADO FUEL & IRON CORP

#### CLOTHES DRYERS

APEX ELECTRICAL MEG CO BENDIX HOME APPLIANCES INC DIV AVCO MEG CORP Blackstone Corp BRYANT HEATER DIV AFFILIATED GAS EQUIPMENT DIV Chicago Dryer Co Clay Equipment Corp Colgate Mig Co Colgate Mfg Co CROSLEY DIV AVCO MFG CORP Prigiair Dir Artu WFE CORP Prigiair Dir General Motors Corp GENERAL ELECTRIC CO APPLIANCE & MERCHANDISE DEPT Hamilton Mfg Co HOTPOINT INC Howard Mfg Co Howard Mfg Co Kraus (Walter S) Co National Metal-Art Mfg Co National Metal-Art Mig Co Pressed Steel Co Rotary Clothes Dryer Co Inc Scientific Heater Co Southern Galvanizing Co Southern Galvanizing Co TEMCO INC WESTINGHOUSE ELECTRIC CORP APPLI-ANCE DIV

Whirlpool Corp Woodenware Products Corp

#### CLOTHES LINE HOLDERS, HOOKS & BARS

HOOKS & BARS Acme Metal Gods Mrg Co Rocaroy Mrg Corp Champion Hardware Co Colonial Bronze Co FAWSCO MFG DIV Judd (H L) Co Inc Lawrence Brothers Midland Co New Holland Metals Co New Holland Metals Co Rep-Loc Products Co SARCENT & CO Sharon Hardware Mrg Co Southern Galvanizing Co Young Specialty Co

Sanks Steel Post Co Cincinnati Iron Fence Co Coyle (H B) Co -t Ine Hohmann & Barnard Ind KEWANEE MFG CO Newark Steel Post Co Rop-Loe Products Co Rotary Clothes Dryer Co Southern Galvanizing Co

#### CLOTHES LINE PULLEYS

Acme Metal Goods Mfg Co Berkeley Specialties Co General Hardware Mfg Co Penn Hardware Co S-R Mfg Co STANLEY WORKS

#### COATINGS. CONCRETE FLOOR

Flash-Stone Co Inc MEDUSA PORTLAND CEMENT CO

#### COATINGS, EMULSIFIED ASPHALT

AMERICAN ASPHALT BOOF CORP ARMSTRONG CORK CO CAREY (PHILIP) MFG CO CERTAIN-TEED PRODUCTS CORP FLINTKOTE CO Horn (A C) Co Inc Lowe Brothers Spray 0 Bond Co Sulliver Co Sullivan Co Tamma Industries Ine Tuffalt Inc

#### COATINGS, LINOLEUM

Mfg Corp Daniels Midland Co (E L) CO RRUCE Chapman Chemical Co Chicago Bronze & Color Works Horn (A C) Co Inc Minnesota Linseed Oil Paint Co O'Brien Palico Products Inc PITTSBURGH PLATE GLASS CO Phesti-Kote Co SHERWIN-WILLIAMS CO Truscon Laboratories Div Devoc & Raynolds Vita-Var Co Withur & Williams Co

#### COATINGS, ROOF, ALUMI-NUM & ASPHALT

Aleminum Industries Inc AMERICAN ASPHALT ROOF CORP BARRETT DIV ALLIED CHEMICAL & DYE CORP BIRD & SON INC CAREY (PHILIP) MFG CO CELOTEX CORP CENTAIN-TEED PRODUCTS CORP FLINTKOTE CO Ford Roofing Products Co Globe Roofing Products Co JOHNS-MANVILLE CORP Keystone Asphalt Products Co Koppers Ca Leion Co Lowe Brothers Pabeo Products Inc PITTSBURGH PLATE GLASS CO REYNOLOS METALS CO RUBEROID CO Sentoard Plastice Corp Shoffeid Ronze & Paint Corp Sonneborn (L) & Bons Inc Spray O Brand Co Sullivan Co Sullivan Co TEXAS CO Mfg Co United Gilsonite Laboratories U S GYPSUM CO Vita-Var Co Webster (W F) Cement Co

#### COATINGS, ROOF, ASPHALT > COLUMNS, WOOD

me Ashestos Covering & Flooring Co bestos Asphait & Insulation Inc Breinig Brothers CALBAR PAINT & VARNISH CO CELOTEX CORP Ceresit Waterproduce Cop Ceresit Waterproduce Cop Clemical Supply Co Dad & Lad Co Devates MFG Corp Donley Brothers Co Ender Rothers Co Elidee Roding Products Co Girden Co Girden Co Girden Contra Co Cardon (George C) Chemical Co Lastik Resolucies Co Inc Mar-Kay MFg Co

CLOTHES-LINE POLES & Paheo Products Ine POSTS, WOOD, STEEL, IRON Ranks Steel Post Co Cincinnati From France Co

#### COLORS. CONCRETE, MOR-TAR, PLASTER

Blue Bidge Tale Co Inc Ceresit Waterproofing Corp Chicago Bronze & Color Clinton Metallic Paint Co Works Colorcrete Industries Inc Fox (M Ewing) Co Inc Gordon (George C) Chemical Co Horn (A. C). Co Inc. Mineral Pigments. Corp. MEDUSA PORTLAND CEMENT CO NATIONAL CYPSUM CO. PECORA. PAINT CO INC. Richetson Mineral (John Works Sealeon Products Inc. Smith Chemical & Color Works Smith (George B). Chemical Works Smith (George B). Chemical Works Smith (John & Co. Inc. Semecharn (L) & Sons Inc. ...... Colle onneborn (L) & Sons ullivan Co amms Industries Inc Toch Brothers Inc TROYER DRIVEWAY SERVICE Truscon Laboratories Div Devoc & Reynolds Truscon Laboratories Div Dev Co Inc Vitro Mfg Co Washington Brick & Lime Co Wesco Waterpaints Inc Williams (C K) & Co

#### COLORS, OIL

Reston Varnish Co Chi, Namel Paint & Varnish Co Elliott Paint and Varnish Co Elliott Paint and Varnish Co Horn (A C) Co Inc Keystone Varnish Co Lowe Bros Martin-Senour Co Moore (Benjamin) & Co PITTSBURGH PLATE GLASS CO Reardon Co Sewall Paint & Varnish Co Sheffield Bonze & Paint Corp Steelcote Mfg Co Truscon Laboratories Div Vita-Var Co

#### COLORS, PAINT

American Varnish Co Bengal Co Boston Varnish Bengal Co Boston Varnish Co CABOT (SAMUEL) & CO INC Chicago Bronze & Color Works Devoe & Baynolds Inc DuPont DeNemours (E I) & Co Billiott Paint & Varnish Co Binot raint & Varnish Co Egnire Varnish Co Gildén Co Horn (A C) Co Ine Love Bros Mineral Pigments Corp Maribeat Div Interchemical Corp NATIONAL GYPSUM CO O'Brien Corp Patterson-Sargent Co PITTSBURGH PLATE GLASS CO Pratt & Lambert Inc SHERWIN-WILLIAMS CO Smith Chemical & Color Co Inc Triscon Laboratorics Div Devoe & Raynolds Co Inc U S GYPSUM CO

#### COLUMNS, METAL

Akron Products Co Allen Steel Products Bethlehem Steel Co Brainard Steel Co COFFMAN (R G) CO INC Donley Brothers FAWSCO MFG DIV FALLS STAMPING & WELDING CO Hute e. Mfg KEWANEE MFG CO Locke Mfg Co Louden Mach herry Co Modern Welding Co National Tube Co Sharon Steel Co TRUSCON STEEL CO DIV REPUBLIC STEEL CORP COMP Union Metal Mfg Co Wolfe Products Inc

Cole Mfg Co CURTIS COMPANIES INC CURTIS COMPANY CO Huttig Sash & Door Co M & M Woodworking Co Pacific Mutual Door Co. RILCO LAMINATED PRODUCTS INC. Schwerd (A F) Mfg Co TIMBER STRUCTURES INC Washington Mfg Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

#### COMPOUNDS, ANTI-FREEZE, CONCRETE

Anti-Hydro Waterproofing Co Flexrock Co Fort Pitt Chemical Co Horn (A C) Co Sonneborn (L) & Sons Inc Sonneborn (L) & Sullivan Co Toch Brothers Inc

#### **COMPOUNDS, ANTI-TERMITE**

COMPOUNDS, ANTI-T Abesto Mfg Corp Boyer (Henical Laboratory Co Broadway Rubber Mfg Co Brucce (E, L) CO CAB Work Co Cabolineum Wood Preserving Co Concers Creek Chemical Corp Cre-O-Tox Chemical Co Dow Chemical Co Dow Chemical Co Essick Mfg Co Forman-Ford & Co Gordon (George C) Chemical Co Hill Ternite Control Systems MONSANTO CHEMICAL CO Palaco Products Inc Pabeo Products Inc PROTECTION PRODUCTS MFG CO Protexol Corp Reilly Tar & Chemical Corp Republic Creosoting Co Rockford Paint Mfg Co Sullivan Co Tennessee Eastman Corp Tennessee Eastman Corp Termitol Co Vaccinol Sales Co Wood Treating Chemical Co

#### COMPOUNDS, RUST PRE-**VENTING & REMOVING**

American Chemical Paint Co American Rust Proof Co Inc CABOT (SAMUEL) & CO INC Murphy Paint Div Interchemical Co Neilson Chemical Corp Oakte Products Ince Parker Rustproof Co Pennsylvania Salt Mfg Co PITTSBURCH PLATE GLASS CO Presstite Engineering Co Protective Coatings Inc Puritan Chemical Co Beilly Tar & Chemical Corp nusticled Co Bastoleum Corp Simolt Co Industrial Div Simith Oil Refuting Co Someborn (L) Sons Inc Bldg Producta Div Specific Mfg Co Stor. Prod. Stop-Rust Co TEXAS CO Toch Bros Inc Truscon Laboratories Div Devoe & Raynolds Inc Ine Vita-Var Corp Wayne Chemical Products Co Wilbur & Williams Co X-Pando Corp

#### **CONCRETE BLOCK CUBING** MACHINES BESSER MFG CO

#### CONCRETE BLOCK DRYING RACKS

BESSER MFG CO Colorcrete Industries Ine Equipment Mfg Inc Fleming Mfg Co

#### CONCRETE BLOCK MACHINES CONCRETE HARDENERS

Air Placement Equipment Co Anchor Concrete Machinery Co Appley (J W) & Son Inc BESSER MFG CO Concrete Earthmatt Co BESSER MFG Cont Co Concrete Fransport Miker Co Crawford Industries Dunn (W E) Co Equipment Engineering Co Flowing Mig Co Ine Ford Coment Block Machine Co General Engines Co Ine George (F C) Machine Co Hollostone Co Jackson & Church Co Jackson & Church Co Kent Machine Co LITNIBAR CO LITNIBAR CO LITNIBAR CO Muttagex Machinery Co Inc Muttagex Machinery Corp Murray (D J) Mig Co Reed (R & S) Corp Stearns Mig Co Inc Tyra (B K) Corp Stearns Mig Co Inc Universal Tampers Inc Universal Tampers Inc

#### CONCRETE CURING COM-POUNDS

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Adensite Co Aluminum Industries Inc American Fluresit Co Inc Anti-Hydro Waterproofing Co CALBAR FAINT & VARNISH CO CALBAR PAINT & VARNISH I CAMP Chemical Co CARTER-WATERS CORP Cresit: Waterproofing Corp Devoe & Baynolds Inc Dow Chemical Co Everence Corp Fleming Mig Co Fort Filt Chemical Co Glidden Co Hora (A C) Co Keystone Asphalt Products Co Ranctite Mig Co Scalcon Products Inc Ranctite Mfg Co Sealcon Products Inc SOLVAY PROCESS DIV ALLIED CHEMICAL & OVE CORP Sonneborn (L) Sons Inc Spray-O-Rond Co Truscon Laboratories Div Devoe & Raynolds Inc

CONCRETE FORM. METAL MATERIALS

Blaw-Knox Div Blaw-Knox Co CECO STEEL PRODUCTS CORP Rocform Corp Ryerson (Joseph T) & Son Soule Steel Co U S PLYWOOD CORP Williams Form Engineering Corp

#### **CONCRETE FORM TIES**

Bethlehem Steel Co Dayton Sure-Grip & Shore Co GATES & SON INC GATES & SUN INC Gertard (A J) & Co Goldsmith Metal Lath Co M & M Wire Clamp Co Richmond Screw Anchor Co Rockform Corp Sommer Metalcraft Corp Sommer Metalcraft Corp Star Expansion Products Inc Star Expansion Products Inc SYMONS CLAMP & MF6 CO Universal Earn Champer Co Universal Form Clamp Co Williams Form Engineering Corp Winner Industrice

#### **CONCRETE FORMS**

Actna Plywood & Veneer Co American Steel Works Art Concrete Works Art Concrete Works ATLAS PLYWOOD CORP Bay City Cast Stone Block Co BESSER MFG CO Bethlehem Steel Co BIERSACH & NIEDERMEYER CO Commercial Shearing & Stamping Inc Des Lauriers Column Mould Co Des Lauriers Column Mould Co Economy Forms Economy Mfg Co Fil-rex Insulating Board Co Fileming Mfg Co Goldsmith Metal Lath Co Heltzel Steel Form & Tank Co Keystone Asphalt Products Co Mecho Products Co

Mecho Products Co Marca Co HEDUSA PORTLAND CEMENT CO Vultiplex Concrete Machinery Corp Quinn Wire & Iron Works Bacform Corp SOMOCO PRODUCTS CO SYMONS CLAMP & MFG CO Universal Form Clamp Co U S GYPSUM CO Ziedier Concrete Products Machinery Co

Adensite Co American Fluresit Co Anti-Hydro Waterproofing Co Anti-Hydro Waterproofing Co Bulos Ridge Tale Co Ince Cauno Chemical Co Celadri Corp Geresit Waterproofing Corp Geresit Waterproofing Corp Councily Incolds Inc Empire Varnish Co Everence Corp Adensite Co Empire Varnis Evercrete Corp Flexrock Co Firstock Co Fort Pitt Chemical Co Harrop Chemical Co Horn (A C) Co KAY TITE CO Smooth-On Mfg Co

Sonneborn (L) & Sons Inc Spray-O-Bond Co STANDARD DRY WALL PRODUCTS INC Steelcote Mfg Co Stonhard Co Sullivan Co Famme Industries Inc Truscon Laboratories Div Devoe & Rasnolda Inc Tufcrete Co Inc Vita-Var Co Wilbur & Williams

#### CONCRETE JOIST MACHINES

**BESSER MEG CO** stries Ine Colorerete Indu Mfg Co Inc

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#### CONCRETE MIXERS, MOR-TAR, ETC.

Barber Greene Co BESSER MFG CO Buch Mfg Co Chain Belt Co Concrete Transport Mixer Co Concrete Transport Mixer Co CONSTRUCTION MACHINERY SALES CO Dunn (W E) Mfg Co Essick Mfg Co Fleming Mfg Co Goldblatt Tool Co Johnson (C S) Co Knickerbocker Mfg Co Kochring Co Knickerbocker Mfg Co Kochring Co Lansing Co Little Gland, Products Inc Lansing Co Little Giant Products Inc MULLER MACHINERY CO INC Northwest Metal Products Inc Pony Mixer Co Smith (T L) Co Stearns Mfg Co Inc WORTHINGTON CORP CONSTRUCTION EQUIPMENT SALES DIV

#### CONCRETE MIXERS, TRAN-SIT

Blaw-Knox Div Blaw-Knox Co Chain Belt Co of Milwaukee Concrete Transport Miyer Co Concrete Transport Mixer Co CONSTRUCTION MACHINERY SALES CO JAEGER MACHINE CO Smith (T L) Co Wiltori Concrete Machinery Co Lid WORTHINGTON CORP CONSTRUCTION EQUIPMENT SALES DIV

#### **CONCRETE PAVERS**

Chain Belt Co WORTHINGTON CORP CONSTRUCTION FOULPMENT SALES DIV

#### CONCRETE PIPE MACHINES

BESSER MFG CO Concrete Pipe Machinery Co Dunn (W E) Mig Co Universal Concrete Pipe Co Inc Ziedler Concrete Products Machinery Co

#### CONCRETE PLANTS, CEN-TRAL MIXING

BESSER MFG CO Blaw-Knox Div Blaw-Knox Co Butler Bin Co Chain Belt Co Concrete Transport Mixer Co CONSTRUCTION MACHINERY SALES CO el Form & Iron Co S) Co Johnson (C S) Co Worthington Corp Construction Equipment Sales Div

#### CONCRETE PRODUCTS. PLANT MIXERS

BESSER MFG CO Blaw-Knox Div Blaw Knoz Co Butler Bin Co CARTER-WATERS CORP Concrete Transport Mixer Co CONSTRUCTION MACHINERY SALES CO Dodson Mfg Co Inc Dunn (W E) Mfg Co Steel Frie nst Co Fleming Mfg Co Foote (J B) Foundry Co George (F C) Machine Co Gilson Brothers Co sounder Co Heitzel Steel Form & Iron Co JACOM (COINC CO MCC) (COINC CO Kent Machine Co Kochring Co MULLER MACHINGRY CO INC MULTICER MACHINGRY CO Nultico Co Co K Mr. Noble Co O K Mfg Co Smith (T L) Co Stearns Mfg Co 1) Co

WORTHINGTON CORP CONSTRUCTION EQUIPMENT SALES DIV

#### CONCRETE PRODUCTS PLANTS

PLANIS ESSEE MFG CO Haw-Knox Die Blaw-Knox-Co Butter Bit Co Eutigment Engineering Co Floming Mg Co George (F C) Machine Co Johnson (C S) Co Sitearns Mig Co Lie

#### **CONCRETE SEALERS** rican Asbestos Products Co

American Crayon Co AMERICAN FLOOR SURFACING MACHINE team Elumouit Co American Fluresit Co Atlas Mineral Products Co Claronez Products Ine Ohio Akona Co Servicised Products Corp Spray-O-Bond Co Truscon Laboratorics Div D ories Div Devoe & Raynolds Co Truscon Laboratories DI Wesco Waterpaints Inc Wilbur & Williams Co

#### CONCRETE SILO STAVE MA-CHINES

RESSER MEG CO

#### CONCRETE VIBRATOR, GAS-**OLINE & ELECTRIC**

Dart Mfg & Sales Co INDEPENDENT PNEUMATIC TOOL CO MALL TOOL COMPANY

#### CONDUCTORS, TUBULAR GENERAL ELECTRIC CO CONSTRUCTION

#### CONDUIT, ASBESTOS, AIR CAREY (PHILIP) MFG CO

#### CONDUIT, FLEXIBLE n Flexible (M B) Co Conduit Co Rederal Electric Products Co General Electric Co Construction Materials Dept National Electric Products Corp Pyle-National Co Spang-Chalfant Div National Supply Co Triangle Conduit & Cable Co WiREMOLD CO

#### CONDUIT, RIGID

Austin (M B) Co CHASE BRASS & COPPER CO Federal Electric Products Co GENERAL ELECTRIC CO CONSTRUCTION MATERIALS DEPT MATERIALS DEPT JOHNS-MANVILLE CORP NATIONAL ELECTRIC PRODUCTS CORP Mfg Co Inc ien Companies Orangeourg Mig to Inc Porter-Hayden Companies Pyle-National Co Spang-Chalfant Div National Supply Co U S Rubber Co

#### CONNECTORS, ELECTRIC WIRE, CABLE

GENERAL ELECTRIC CO CONSTRUCTION MATERIALS DEPT Hubbell (Harvey) Inc

#### CONVECTORS

Acme Industries Inc AMERICAN RADIATOR & STANDARD SANI-TARY CORP BURMHAM CORP BUSH MFC CO CRANE CO FEDDERS-QUIGAN CO MODINE MFC CO National Radiator Co Neshiti (John J) Inc Rempe Co Rittling Corp Trane Co Tuttle & Bailey Inc Utica Radiator Corp VULCAN RADIATOR CO Webster (Warren) & YOUNG RADIATOR CO BUCKET CONVEYORS,

# FLIGHT

Alvey-Ferguson Co In American Conveyor Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

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Atlas Conveyor Co Barber-Greene Co Baughman Mfg Co Inc Acagaman Mig Co 206 Fairfield Engineering Co Fairfield Engineering Co Farquhar (A B) Co Godfrey Conveyor Co Haiss (George) Mig Co Div Pettibone Mul-liken Corp Haslett Chutte & Conveyor Co Hewitt Rubber Div Hewitt-Robins Inc Houry-Berg Steel & Iron Works Jeffrey Mig Co Kewance Machinery & Conveyor Co Lake Shore Engineering Co Lamson Corp Link-Belt Co Lippmann Engineering Works Link-Belt Co Lippmann Engineering Works Mathews Conveyer Co MULKEY (SAM) CO Northern Conveyor Co Power-Pack Conveyors Power-Pack Conveyors Rapids-Standard Co Ine Standard Conveyor Co Western Foundry Co Willard Concrete Machinery Co Ltd

# CONVEYORS, CHAIN LINK & CHAIN BELT

Allington & Curtis Mfg Co Chain Belt Co Div American Steel & Wire Co Cyclone Fence Div American Steel & Wire Co Filer & Stowell Haiss (George) Mfg Co Div Pettibone Mul-liken Corre Lamson Corp Link-Belt Co Mathews Conveyer Co Northern Conveyor Co Stephens-Adamson Mfg Co

#### CONVEYORS, GRAVITY ROLLER

Allied Welding & Mfg Co Barber-Greene Co BELSAW MACHINERY CO BESSER MFG CO BESSEN MFG CO Blatt (Frank I) Co Ine Bonded Scale & Machine Co Brady Conveyors Corp Butler Bin Co Chain Belt Co Chain Belt Co Chaise Turbine Mfg Co Corley Mfg Co Contex Ming Co Cortex Mig Co Darden (Roy) Industries Inc Equipment Engineering Co Farquhar (A B) Co Fleming Mig Co Farininar (A.R) Co Fleming Mig Co General Conveyor & Mig Co George (F C) Machine Co Gifford-Vood Co Goffrey Course) Mig Co Haiss (Corree) Mig Co Haisson (C S) Co Lanson Corre Link-Belt Co Lipomann Engineering Works Logan Co Lippmann Engineering Works Logan Co Logan Co Notle Co O K Mfg Co Rapids-Standard Co Ine Standard Conceyor Co Stearns Mfg Co Ine Western Foundry Co Wilson Saw Dir Media Machine Works Ine

#### CONVEYORS, OVERHEAD

 CONVEYORS, OVERHEAD
ALLI'H PROUTY INC
Brady Conveyors Corp
Cleveland Tramrail Div Cleveland
Crane & Engineering Co
Fairfield Engineering Co
Fairfield Engineering Co
Gifford-Wood Co
GiffordGiff RICHARDS-WILCOX CO Western Foundry Co Western Foundry Co WICKWIRE SPENCER STEEL DIV COLO-RADO FUEL & IRON CORP

#### CONVEYORS, PORTABLE BELT

Alvey-Ferguson Co Inc American Conveyor Co Atlas Conveyor Co

Barber-Greene Co Baughman Mfg Co Ine Bosworth Mfg Co Farrifield Engineering Co Farrifield Engineering Co Farrifield Engineering Co Halsat (George) Mfg Co Div Petribone Mul-Halett Chulte & Conveyor Co Hewritt Rubber Div Hewritt-Robins Ine Howry-Berg Steel & Iron Works Jeffrey Mfg Co Kewanee Machinery & Conveyor Co Lake Shore Engineering Co Lake Shore Engineering Co Lake Bott Co Lippmann Engineering Works Mathews, Conveyor Co Mathews, Conveyor Co Mathews Conveyer Co MULKEY (SAM) CO MULKEY (SAM) CO Northern Conveyors Power-Pack Conveyors Banida-Standard Co Ine Standard Conveyor Co Western Foundry Co Willard Concrete Machinery Co Ltd

COOLERS, WATER, ELECTRIC AIRTEMP DIV CHRYSLER CORP Frigidaire Div General Motors Corp GENERAL ELECTRIC CO AIR CONDITIONING GENERAL ELECTRIC CO AIN CONDITIONI DEPT Haws Drinking Faueet Co KELVINATOR DIV MASH-KELVINATOR CORP CORP Sunfoc Company Taylor (Halsey W) Co WESTINGHOUSE ELECTRIC CORP

COPPER STRUCTURAL SHAPES

CHASE BRASS & COPPER CO Revere Copper & Brass Co

#### CORD, PLASTIC HUNTER DOUGLAS CORP SAMSON CORDAGE WORKS

CORD, RUBBER GENERAL ELECTRIC CO CONSTRUCTION

CORNICES, METAL BERGER MFG CO DIV REPUBLIC STEEL CORP Edwards Mfg Co Meyer (F) & Brother Co STEELCRAFT MFG CO

#### CORNERS, SIDING

Allen Steel Products BARRETT DIV ALLIED CHEMICAL & DYE CORP BIRD & SON INC Bugher Mfg Co CELOTEX CORP Daley Brithers to Daley Brithers to ELINY KOTE CO BLANK STEEL PRODUCTS CO JONES & BROWN INC Kees (FD D) Mig Co Klauer Mig Co LaCrosse Steel Roofing & Corrugating Co Co Northwest Metal Products Inc REYNOLDS METALS CO BLDG PRODUCTS DIV ST PAUL CORRUGATING CO U S GYFSUM CO Wheeling Corrugating Co

#### COUNTER DISPLAY CABINETS

CADINELS Acta Plywood & Veneer Co American Plywood Corp Colgate Mig Corp Engineers: Plywood Products Co General Wood Warks Grand B. (d. F. d. Ses Inc Finder (W C) & Co Heller (W C) & Co Heller (W C) & Co Henser (Chas O) Co Larson (Chas O) Co Kraus (Walter 8) to Larson (Chas 0) fo LONG-BELL LUMBER CO LONG-BELL LUMBER CO LANG MARKING LONG MOORE (GOODLOE E) INC MOORE (GOODLOE E) INC Precision Equitment Co Rofector Hardware Corp Rustie Furniture Co Inc Schwarz Showell Corp Stackbin Corp STANDARD STEEL WORKS Universal Steel Equipment Warren (J D) Mfg Co Corp

## COVE, MOLDED PLYWOOD

Keller Products Inc UNITED STATES PLYWOOD CORP

COVERING, FABRIC WALL Columbus Coated Fabrics Corp

Standard Coated Products Div Interchemical CRANES & SHOVELS, WICCIN'S (N B) SOME CO

COVERING, PIPE, ASBESTOS

Acme Ashestos Covering & Flooring Co ARMSTRONG CORK CO Ashestos Asphalt & Insulation Inc CAREY (PHILIP) MFG CO for L A IOHNS-MANVILLE CORP KEASBEY & MATTISON CO Paheo Products Inc RUBERGIO CO Sall Mountain Co Smith & Kanzler Co Standard Ashestos Mfg Co Wilson (Grant) Inc

COVERINGS, PIPE, CLOTH MORTELL (1 W) CO

COVERINGS, PIPE, FIBROUS GLASS

OWENS-CORNING FIBERGLAS CORP

**COVERINGS, RESILIENT** WALL Sloane-Blabon Corp

COVERINGS, WALL, WOOD-ON-CLOTH

Brasco Mfg Co U S PLYWOOD CORP

#### COVERINGS, VINYL PLASTIC FLOOR

Goodyear Tire & Rubber Co Flooring Dept Delaware Floor Products Inc MACHMEISTER INC

COVERS, MANHOLE & CISTERN

Danley Brothers Industrial Iron Works MALESTIC COMPANY

#### CRANES, CRAWLER & TRUCK MOUNTED BUCYRUS-ERIE CO

#### CRANES, OVERHEAD TRAVELING

American Reidge Co Sub of U S Steel Corp American Chain & Cable Co Inc Bridgeport Chain & Mig Co Chisholm Moore Hoist Corp Cleveland Trantall File Cheveland Trantall File Cheveland Crane & Engineering Co Detroit Hoist Machine Co HARNISCHFEGER CORP HABBIG Co Lane Mfg Co Manning Maxwell & Moore Inc Reading Chain & Block Corp Reading Chain & Block Corp RICHARDS-WILCOX CO Shaw Box Crane & Hoist Div Shepard Niles Crane & Hoist Co

#### CRANES, POWER INDUSTRIAL

American Hoist & Derrick Co Atlantic Transportation Co Dir Yale & Towne Mfg Co Clyde Iron Works Inc HARNISCHFEGER CORP Myster Co Kochring Co Lewis Shepard Products Ine Ross Carrier Co Shepard Niles Crane & Hoist Corp Silent Roist & Crane Co

#### CRANES, TRACTOR & TRUCK

M Mfg Co RUCYRUS FRIE CO HARMISCHEEGER CORP Kochring Co OLIVER CORP Stimmel Winch Co Silent Hoist & Crane Taylor Machine Works ne Co

# POWERED

ALLIS-CHALMERS MEG CO ALLIS-CHALMERS MFG CU Bay City Shorels Inc UCYRUS-ERIE CO Chisholm-Moore Hoist Corp Die Columbus-McKinnon Chain Corp Charles Machine Works Cleveland Trencher Co Clyde Iron Works Inc Day-Smith Hydraulic Corp Day-Smith Hydraulic Corp HARNISCHFEGER CORP Hughes-Keenan Co Hydrocrane Div Bucyrus-Erle Co Hyster Co Hyster Co Koeluring Co Lunks Bell Speeder Co Lunks (Harry) Co Inc Louden Machinery Co Marton Power Shovel Co Michigan Power Shovel Co Michigan Power Shovel Co Mitwankee Power Engineering Co Orton Crane & Shovel Co Gerond Co ent Co Orgood Co Red Tiger Products Inc Ross Carrier Co Schield Bantam Co Schield Bantam Co Shaw-Box Crane & Hoist Div Manning Max-well & Moore Inc Slient Hoist & Crane Co Thew Shovel Co Unit Crane & Shovel Corp

#### CREOSOTE

American Creasote Works Inc BARRETT DIV ALLIED CHEMICAL & DYE CORP CABOT (SAMUEL) & CO INC C.A. Wood Preserver Co Carbolineum Wood Preserving Co Protexal Corp Reilly Tar & Chemical Corp

CRESTING & FINIALS, ROOF, SHEET METAL

BERGER MFG CO DIV REPUBLIC STEEL CECO STEEL PRODUCTS CORP Adwards Co Inc INLAND STEEL PRODUCTS CO PENN METAL CO INC Wheeling Co

CRIBBING, WIRE AMERICAN STEEL & WIRE CO Continental Steel Corp KEYSTONE STEEL & WIRE CO Logan Co Mid States Steel & Wire Co Northwestern Steel & Wire Co

#### CRIBS, CORN, PORTABLE

AMERICAN STEEL & WIRE CO Beatrice Steel Tank Mfg Co Beatrice Steel Tank Mfg C Butler Mfg Co Capitol Fence Co Gaynor (E S) Lumber Co Hilinois Wire & Mfg Co KEYSTONE STEEL & WIRE CO Mattsen Wire & Mfg Co Inc Mid-States Steel & Wire Co Mid-States Steel & Wire Co Midwest Steel Products Co MORE (GODDLEE) CO Northwake Bridge Supply & Lumber Co Northwaetern Steel & Wire Co BillCO LAMINATED PRODUCTS INC ROWE MFG CO Security Fence & Mfg Co Security Fence & Mfg Co Super Structures Inc Wheeler-Annual Co

#### CRIBS, GRAIN, STEEL

crifirst Chemical Corp ston Metal Products Corp reland Sons Co G F Mfg Co KEYSTONE STEEL & WIRE CO Lamneck Products Inc Martin Steel Products Corp Ross Equipment Co

CUTTERS, ASBESTOS, **CEMENT BOARD** 

JOHNS-MANVILLE CORP PEARSON (0) MFG CO CUTTERS, BAR

CUTTERS, GLASS

Barrett (William L) Black Panther Tool Co Fletcher-Terry Co

CUTTERS, TILE Goldblatt Tool Co J M J INDUSTRIES INC MASTIC TILE CORP OF AMERICA RED DEVIL TOOLS Selek (Walter E) & Co Williams Products Co Inc

Lakelle Industries Inc.

Glaziers' Tool Mfg Co Heller (W C) & Co Karelsen (E) Inc Marvel Rack Mfg Co Millers Falls Co National Mirror Works

Ridenly Trim

BOARD

BOICE CRANE CO Ekstrom Carlson & Co

WORKS Taylor-Stiles & Co Woods (S A) Machine Co

CUTTERS, SHINGLE,

**ASBESTOS-CEMENT** 

ASBESIUS-LEMENT FLINTKOTE CO Inducer Brothers Saw Mfg Co Ine JOHNS-MANVILLE CORP KEASBEY & MATTISON CO Parsons Bros Slate Co Parsons

CUTTERS, SIDING, ASPHALT

New England Carbide Tool Co Ine PITTSBURGH PLATE GLASS CO RED DEVIL TOOLS

CUTTERS, INSULATION

CUTTERS, MOULDING

Huther Brothers Saw Mfg Co Inc MARKWELL MFG CO INC

Brothers Saw Mfg Co Inc Mfg Co

PEARSON (0) NEE CO STANLEY TOOLS DIV STANLEY WORKS

Shimer (Samuel J) & Sons Inc STANLEY ELECTRIC TOOL DIV STANLEY WORKS

#### DAMPERS FOR CEILING DIFFUSER

AIR CONTROL PRODUCTS INC

DAMPERS, FIREPLACE Allen Steel Products BENNET-I-RELAND CO BOSTWICK STEEL LATH CO CARTER ENGINEERING CO CHATTANOGGA IMPLEMENT & MFG CO Colonial Fireplace Co COPCO STEEL & ENGINEERING CO CONTE (11 W) Co Donley Brothers Gabriel Steel Co Harris Inc Harris Inc H & R Mfg Co HART PRODUCTS DIV STRATTON & TERSTEGGE CO Television I Iron Works Industrial Iron Work KEWANEE MFG CO MAJESTIC CO Partiand Stove Foundry Co PRICE FIREPLACE MEATER & TANK CORP SUPERIOR FIREPLACE CO Swett (A L) Iron Works Vestal Stove Co Building Specialties Div

#### DAMPPROOFERS CALBAR PAINT & VARNISH CO Minway Co Inc

## DAMPPROOFING

COMPOUNDS esto Mfg Corp Anti-Hydro Waterproofing Co BARRETT DIV ALLIED CHEMICAL & DYE CORP CAREY (PHILIP) MFG CO Cenesi Waterproofing Corp Corrosi Waterproofing Corp Coprox Iuc Donley Brothers FLINTKOTE CO Horn (A C) Co Inc JOHNS-MANVILLE CORP MIRACLE ADHESIVES CORP MOORE (GOODLOE E) CO Paheo Products Inc PITTSBURGH PLATE GLASS CO

lum (Julius) & Co Inc

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52 Reardon Co Reilly Tar & Chemical Corp nd Co Inc Rubber & Plastics Compour Sonneborn (L) & Sons Inc. Sonneborn (L) & Sons Inc Spray-O-Bond Co Sullivan Co Truscon Laboratories Div Devoe & Raynolds U S GYPSUM CO Vita-Var Co Wilbur & Williams

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DECKS, ROOF, METAL BERGER MFG CO DIV REPUBLIC STEEL CORP CECO STEEL PRODUCTS CO FOLLAWSBEE STEEL CORP Goldsmith Metal Lath Co Goldsmith Metal Lath Co INLAND STEEL PRODUCTS CO Soule Steel Co. Tennessee Coal Iron & Railroad Co Truscom Steel Co div Republic Steel Corp U S Gypsum Co United States Steel Co

#### DECKS, ROOF, PRECAST

CARTER-WATERS CORP CELOTEX CORP CELOTEX CORP CERTAIN-TEED PRODUCTS CORP NATIONAL GYPSUM CO OWENS-ILLIMOIS GLASS CO U S GYPSUM CO

#### DERRICKS

American Hoist & Derrick Co Clyde Iron Works Inc Dobhie Foundry & Machine Co Downs Crane & Hoist Co Lane Mfg Co Sasgen Derrick Co

#### DEVICES, MARKING

Eliason Tool Co Heller (W C) & Co Lowe Bros Ryerson (Joseph T) & Son Timely Products Co

DEVICES, WIRING NATIONAL ELECTRIC PRODUCTS CORP

#### DIFFUSERS, AIR

AIR CONTROL PRODUCTS INC Air Devices, Inc Anemostal Corp of America Pyle-National Co Multi-Vent Dis

#### DIGGERS, POST HOLE

American Fork & Hoe Co Ames Baldwin Wyoming Co B & B Co B & R Co Buda Co Dicke Toole Co Diston (Henry) & Sons Inc Franklin Equipment Co Hubbard & Co Iwan Brothers Inc Ka-MG Tools Inc Lectonia Tool Co Star Bit & Tool Co Sterling Foundry Co Three Temper Corp Winnus To Mic Co Woodings-Verona Tool Works

#### DISCS, ABRASIVE

Albertson & Co Inc AMERICAN FLOOR SURFACING MACHINE 6.0

CONTROL CONTROL OF A CHAINE MACHINE Armour & Co Sandpaser Dis BERR.MANNISC CORP DIV BEACK & DECKER MFC O Broudway Rubher Mfg Co Clarko Sandmar Machine Co Mid-West Alrasire Co Polo Froducts Rhodes (Lames H) & Co Sandpaper Inc Standard Bronze Co

#### **DISHWASHERS**

AMERICAN KITCHENS DIV AVCO MFG CO AMERICAN RADIATOR & STANDARD SANI-TARY CORP APEX ELECTRICAL MFG CO CROSLEY DIV AVCO MFG CORP GENERAL ELECTRIC CO APPLIANCES & MERCHANDISE DEPT HODART Mfg Co HOTPOINT INC MULLINS MFG CORP PROTECTUB INC WESTINGHOUSE ELECTRIC CORP APPLI-

#### DISINFECTANTS

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Boyle-Midway Inc Carbolineum Wood Preserving Co Grasselli Chemical Dept DuPont (E I) De Grassent Chemical Dept C Nemours & Co Hollingshead (E M) Corp Koppers Co Pennsylvania Salt Mfg Co Puritan Sales Co SHERWIN-WILLIAMS CO Vacuum Oil Co

#### DOOR BOTTOMS, DRAFT SEAL

SEAL Decarite Inc Decarite Inc Dentin (W J) & Co Dorbin Metal Strip Mig Co Lloyd Mig Co MASTER METAL STRIP SERVICE INC MASTER METAL STRIP SERVICE INC Monarch Metal Weatherstrip Co National Guard Products Inc Spanjers (A J) Co Thermal Co Waterloo Sales Co

#### **DOOR OPERATORS**

 DOOR OPERATORS

 Rommer Spring Hinge Co Inc
 Casement Hardware Co
 Chicago Spring Hinge Co
 Coresin (C 4 5) Div AMERICAN HARD WARE CORP
 Croft Steel Products Inc
 Federal Industries Inc
 GetTY (N 5) 4 CO INC
 Glynn-Johnson Corp
 Hardware Products Inc
 His Co
 Kaptur (Joseph J) Sales Co
 Kohns (K) Corp
 LOCKWOOD HARDWARE MFG CO
 Newell Mig Co
 Newell M Hardware Mfg Co Parker (S) Hardw RAYNOR MFG CO Reading Hardware Co Richards-Wilcox MFG CO RUSSELL & ERWIN DIV AMERICAN HARD-WARE CORP Sacer Barrows Div Yale & Towne Sacer Barrows Div Yale & Towne Sacer Barrows Div Sace Scharge Luck Co Scharge Luck Co Lock & Hardware Co Inc y Spring Hinge Co SAME ME CO STANLEY WORKS DOOR CONTROL DIV STERLING HARDWARE MFG CO WAGNER MFG CO YALE & TOWNE MFG CO

#### DOOR OPERATORS, AUTOMATIC

AUTOMAINC Autosnic Sales Div Vendo Co EARBER-COLMAN CO CALDER MFG CO Cornell Rolling Door Works General Door Mfg Co General Door Mfg Co GETTY (N S) & CO INC Kinnear Mfg Co McKwe Door Cos OVERMEAD DOOR CORP OVERMEAD DOOR CORP OVERMEAD DOOR CORP OVERMEAD CORP CASE CO Quincy Mfg Co RAYNOR MFG CO RICHARDS-WILCOX CO RUBSOL APPLIANCES RUSSELL & ERWIN DIV AMERICAN HARD-WARE CORP ROWE MFG CO STANLEY WORKS Verdo CO WAGNER MFG CO Wilson (J G) Corp

#### DOOR OPERATORS, GARAGE

GARAGE BARBER-COLMAN CO CALDER MFG CO CTATE (H W) CO CRAWFORD DOOR CO FRANTZ MFG CO HOWELL MFG CO NUERT MFG CO VERMEAD DOOR CORP RAYNOR MFG CO RICHARDS-WILCOX CO ROBOT APPLIANCES INC ROBOT APPLIANCES INC Sterling Electronic Door CO Electronic Door Control Corp WAGNER MFG CO

#### DOOR SPRINGS

APRIL 1953

Accurate Spring Mfg Co AMERICAN STEEL & WIRE CO

CORBIN (P&F) DIV AMERICAN HOWE Donley Brothers Gabriel Steel Co CORP Fiwale Equipment Mfg Co FRANTZ MFG CO Hubbard (M D) Spring Co Milwaukee Stamping Co MATIONAL MFG CO NATIONAL MF6 CO Parker (S) Hardware Mfg Co SAGER-BARROWS DIV YALE & TOWNE SAGENT & CO STANLEY WORKS TENNESSEE COAL INON & RAILROAD CO Wright Products Inc

#### DOOR UNITS, WOOD Lutze (Wm R) Co READY HUNG DOOR CORP

DOORS. ACCESS

Aetna Plywood & Veneer Co COFFMAN (R G) CO INC Cole Mfg Co Columbia Metal Box Co Dahlstrom Metallic Door Co Decatur Iron & Steel Co Donley Brothers Farley & Loctscher Mfg Co Fries & Son Steel Construction & Engineering Frites & Son Steel Construction & Engineering Co To Industrial Iron Works Industrial Iron Works INLAND STEEL PHODUCTS CO MIAMI CASINET DIV CAREY (PHILIP) MFG CO Morgan Co Standard Steel Cabinet Co Standard Steel Cabinet Co Standard Steel Cabinet Co Standard Steel Cabinet Co StateLCART MFG CO UNITED STEEL FABRICATORS INC UNITED STEEL FABRICATORS INC UNITED STEEL FABRICATORS INC Western Foundry Co Wheeler Osgood Co

#### DOORS, ASH PIT

Adams Co BENNETT-IRELAND CO BOSTWICK STEEL LATH CO COPCO STEEL & ENGINEERING CO Covert (H W) Co Donley Brothers Cabriel Steel Co Harris Inc. HEATILATOR INC. HEATLIATOR INC Industrial Iron Works International Steel Co KEWANEE MFG CO MAJESTIC CO Peerless MFG CO Swett (A W) Iron Works TAUSCOM STEEL CO DIV REPUBLIC STEEL Cedel Store Co Building Specialties Div Wheeling Corrugating Co Wilmington Casting Co

#### DOORS, CABINET & CUPBOARD, WOOD

Actna Plywood & Veneer Co American Plywood Corp ANGEL NOVELTY CO ATLAS PLYWOOD CORP Buffelen Lumher & Mfg Co Burke Millwork Co Cole Mfg Co CURTIS COMPANIES INC Concentration of the second se

DOORS, CELLAR, BULKHEAD (METAL)

BILCO CO HEATILATOR INC

## DOORS, CLEANOUT

Adams Co BENNETT-IRELAND CO BOSTWICK STEEL LATH CO CECO STEEL PRODUCTS CORP Chattaneoga Implement & Mfg Co Colonial Fireplace Co COPCO STEEL & ENGINEERING CO

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

Harris Inc HEATILATOR CO HILATOR STEEL PRODUCTS CO International Steel Co KEWANEE MFG CO MAJESTIC CO Mester Brothers Metal Crafters Price Fireplace Heater & Tank Corp Sterling Foundry Co SUPERIOR FIREPLACE CO US Hardware & Mfg Co Vestal Stove Co Building Specialties Div Western Foundry Co Wheeling Corrugating Co

#### DOORS, COAL CHUTE

Adams Co Allen Steel Products BOSTWICK STEEL LATH CO CECO STEEL PRODUCTS CO COPCO STEEL & ENGINEERING CO Iron & Ste Gabriel Steel Co Industrial Iron Work KEWANEE MFG CO MAJESTIC CO Mesker Brothers Swett (A L) Iron Works U S GYPSUM CO Wheeling Corrugating Co

#### DOORS, COMBINATION, ALUMINUM

Alseo Inc Alumatic Corp of America CECO STEEL PRODUCTS CO Compo-Miracle Products Co Compo-Miracle P Eagle Picher Co Firecraft Corp Kaufmann Corp McKinley (Orman 0) Co RUSSELL (F C) CO Storm Windows of Aluminum Inc Weather-Proof Co

#### DOORS, COMBINATION, STEEL

McKinley (Orman O) Co RUSSELL (F C) CO Weather-Seal Inc

#### DOORS, COMBINATION. WOOD

ANGEL NOVELTY CO Buffelen Lumber & Mig Co Burke Millwork Co CARR ADAMS & COLLIER CO Chamberlin Co of America Cole Mfg Co Combination Door Co Cole Mfg Co Combination Door Co Continental Sereen Co CurRTIS COMPANIES INC Farley & Loetscher Mfg Co GATE CITY SASH & DOOR CO GREGG & SON Hinnes (Edward) Lumber Co Hintig Mfg Co LONG-BELL LUMBER CO Marquart Millwork Co Marquart Millwork Co Martinal Sereen Door Co National Sereen Co Inc National Sereen Co Inc National Sereen Co Co Northwest Boor Co Northwest Boor Co Dennix Mfg Co Dennix Mfg Co Roch & Musser Mfg Co Robbins Mfg Co Roch & Musser Mfg Co Silerest Co The Silmeson LoGGING CO Weather-Soal Inc Weather-Seal Inc Window Conditioning Co

#### DOORS, FIR

Acme Door Co Actna Plywood & Veneer Co ANGEL NOVELTY CO ATLAS PLYWOOD CORP Buffelen Lumber & Mfg Co Burke Millwork Co Farley & Loctcher Mfg Co EEORGIA-PACIFIC PLYWOOD CO GEEORG & SON WARBOR PLYWOOD CORP Linden Mfg Co LONG-BELL LUMGER CO Milwaukee Plywood Co M & M Woodworking Co Monarch Door & Mfg Co Northwest Door Co Robinson Mfg Co

Rock Island Sash & Door Co Simpson Logging Co Spokane Sash & Door Co U S PLYWOOD CORP Washington Door Co Western Door & Plywood Corp Woodward Lumber Co

#### DOORS, FIRE

AETNA STEEL PRODUCTS CORP AMERICAN WELDING & MFG CO Cornell Bolling Door Works Dahlstrom Metallic Door Co Edwards Co Inc FENESTRA BUILDING PRODUCTS Fex Bros Mfg Co Harris Preble Fire Doors Inc International Fireproof Door International Steel Co Kinnear Mfg Co 50 Protexol Corp RICHARDS-WILCOX CO RODDIS PLYWOOD CORP St Louis Fire Door Co Soule Steel Co Syracume Fire Door Corp UNITED STEEL FABRICATORS INC U S PLYWOOD CORP VIRGINIA METAL PRODUCTS CORP Williss Mfg Co Inc Wilson (J G) Corp

#### DOORS, FLEXIBLE & FOLDING

American Bamboo Corn American Bandoo Corp Curtition Co Holeomb & Hoke Mfg Co Inc HOUGH SHADE CORP NEW CASTLE PRODUCTS CO NEW CASILE FINDOLIS CO Orchard Brothers Inc RICHARDS-WILCOX CO ROLSCREEN CO Smith (F P) Wire & Iron Works Inc TRUSCON STEEL CO DIV REPUBLIC STEEL CORP

DOORS, FLUSH, WOOD Actas Plywood & Veneer Co American Plywood Corp ANGEL NOVELTY CO ATLAS PLYWOOD CORP Braund (W B) Co Carnahan Mfg Co Carnahan Mfg Co CARR-ADAMS & COLLIER CO Culler Furniture Co Door Div CURTIS COMPANIES INC CURTIS COMPANES INC Davis Plywood Corp Elliott Bay Mill Co Ess-Wood Corp Farley & Lockscher Mfg Co Future Products Inc General Plywood Corp GERGIA-PACIFIC PLYW00D CO GREGG & SON Hardwood Brouburg Co GREEG & SON Hardwood Products Co HASKELITE MFG CORP NIGGINS INC Huttig Mfg Co Hyde-Murphy Co Ipik Plywood Corp Konchton Plywood & Veneer Co Kochton Plywood & Veneer Co Kochton Piywood & Vener Co Letraco Building Products LONG-BELL LUMBER CO Lutze (VM RB) Co MERCEL CO Michigan Door Co Midwark Piywood Co Milwarkee Piywood Co Mi & M Woodworking Co Resnprest Diw Molawk Piwal Doors Inc Mohawk Flush Doors In Morgan Co Mussman & Shafer Inc Northern Sash & Door Co Northwest Door Co PAINE LUMBER CO Petterson (J C) Co Plywood & Door Sales Corp Plywoods-Plastics Corp Rock Island Millwork Co RODDIS PLYWOOD CORP NUDDIS FLYWODD CORF Silmrest Co Simpson Logging Co THOMASON PLYWOOD CORP US FLYWOOD CORP Walled Lake Door Co Weisherg-Baer Co Wisconsin Door Co

DOORS, GARAGE, METAL

Blaw-Knox Div Blaw-Knox Co Compo-Miracle Products Co FENESTRA BUILDING PRODUCTS FRANZ MFG OO Holister Coil Spring Mfg Co International Steel Co ar Mfg MORRISON STEEL PRODUCTS INC OVERHEAD DOOR CORP Fromer Co Riamping Prods & Mfg Co Steel Door Dir STEEL DOOR CORP STEEL PRODUCTS Taylor (R L) Inc Taylor (R L) Inc Titl-A-Door Corp Tilt-A-Door Corp UNITED STEEL FABRICATORS INC Wilson Foundry & Machine Co

DOORS, GARAGE, WOOD

BARBER-COLMAN CO Buffelen Lumber & Mfg Co Burke Millwork Co CALDER MFG CO Capitol Products Co CARN ADAMS & COLLIER CO Commander Door Inc CRAWFORD DOOR CO CURTIS COMPANIES INC Farley & Loetscher Co FRANTZ NFG CO General Door Mfg Co GEORGIA-PACIFIC PLYWOOD CO Hall Enterprises Kaiser Metal Products Co Louden Machinery Co Marquart Millwork Co Mauk Seattle Lumber Co McKee Door Co H & M Woodworking Co eth Plywood Inc Northwest Door Co OVERNEAD DOOR CORP RAYNOR MFG CO RICHARDS-WILCOX CO Roach & Musser Mfg Co Roach & Musser Mfg Co Rock Island Millwork Co RODDIS PLYWORD CORP Simpson Logging Co STANLEY WORKS GARAGE WARDWARE DEPT Starline Inc

#### DOORS, GARAGE, UPWARD ACTING, METAL

CALDER MEG CO Clark Door Co Inc Femestra Building Products Frantz WFG CO K-O GARAGE DOOR SALES MORRISON STEEL PRODUCTS CO OVERHEAD DOOR CORP Pioneer Co Stamping Products & Mfg Co Steel Door Div STRAND CARACE DOOR DIV DETROIT STEEL PRODUCTS CO Taylor (L.S) Mig Co Wilson (J.G) Corp

#### DOORS, GARAGE, UPWARD ACTING, WOOD

Acme Door Co BARBER-COLMAN CO Retter-Bilt Door Co Buffelen Lumber & Mfg Co Burke Millwork Co Capitol Products Co Commander Door Inc CRAWFORD DOOR CO CURTIS COMPANIES INC CURTS COMPANIES INC Davis Plywood Corp Essential Products Corp Farley & Loctscher Mfg Co FRANTZ MFG CO GEORGIA PACIFIC PLYWOOD CO Hall Enterprises Harris Inc M & M Woodworking Co Marquart Millwork Co Morgan Overhead Door Co NATIONAL MFG CO Northwest Door Co OVERHEAD DOOR CORP Overhead Door Div United Products Co Pacific Mutual Door Co Peelle Co Inc Co Phenix Mfg Co RAYNOR MFG CO RICHARDS-WILCOX CO Roach & Musser Mfg Co Rock Island Millwork Co Rose Mfg Co ROWE MFG CO Simpson Logging Co WAGNER MFG CO Washington Door Co WEL-BILT PRODUCTS CO stern Door & Plywood Corp.

#### DOORS, GLASS

ANGEL NOVELTY CO Areadia Metal Products Ine Bache (Semon) & Co Hagemann Cos Ine Huttig Sash & Door Co LIBBEY-OWENS-FORD GLASS CO LUDMAN CORP National Mirror Works Northwest Door Co PITTSBURGH PLATE GLASS CO Science Glass CO afetee Glass Co rhacht Associates Inc. egelke & Kohlhaus Co hower Door Co of America

#### DOORS, HARDWOOD

Aetna Plywood & Veneer Co American Plywood Corp American Sash & Door Co

ANGEL NOVELTY CO ATLAS PLYWOOD CORP Braund-Harmon Co Braund (W B) Co Buffelen Lumber & Mfg Co Carnahan Mfg Co CURTIS COMPANIES LNC Davis Duke R Ess-Wood Corp Farley & Loetscher Mfg Co General Plywood Corp GEORGIA-PACIFIC PLYWOOD CO HASKELITE MFG CORP Huttig Mfg Co Hyde-Murphy Co Hyde-Murphy Ideal Co Ipik Plywood Corp Letraco Building Products Marquart Millwork Co MENGEL CO Michigan Door Co. Michigan Door Co. Morgan Co Mussman & Shafer Ine Northern Sash & Door Co PAINE LUMBER CO LTD Phillips-Rhyne Lumber Co Rock Island Millwork Co RODDIS PLYWOOD CORP Silerest Co THOMASON PLYWOOD CORP U S PLYWOOD CORP Walle d Lake Door Co

#### DOORS, LAUNDRY CHUTE AIR CONTROL PRODUCTS INC.

Allen Steel Products COPCO STEEL & ENGINEERING CO Gabriel Steel Co Ideal Cabinet Corp Div of Des Lauriers Column Mould Co Inc Kluegel (Ernest) & Co MIAMI CABINET DIV CAREY (PHILIP) CO

#### DOORS, LOUVRE, WOOD CARR ADAMS & COLLIER CO CURTIS COMPANIES INC

Morgan Co PRO-TECT-U JALOUSIE CORP Silerest Co WEL-BILT PRODUCTS CO

DOORS, METAL AETNA STEEL PRODUCTS CORP American Welding & MFG CO Bayley (William) Co BILCO CO Rogert & Carlough Co CECO STEEL PRODUCTS CORP Cornell Rolling Door Work Crittall Inc Croft Steel Products Ine Dahlstrom Metallic Door C Decatur Iron & Steel Co Demage & Associates Diebold Co Inc Co Edwards Co Inc FENESTRA BUILDING PRODUCTS FLYNN (MICHAEL) MFG CO Harris Preble Fire Doors Inc HOPE'S WINDOWS INC International Fireproof Door Co International Steel Co KAWNEER CO Mahon (R C) Co MARMET CORP Mesker Bros Milwaukee Stamping Co Newman Brothers Inc Newman Direction Concernment Peelle Co Inc RICHARDS-WILCOX CO Richmond Fireproof Door Co RUSSELL (F C) CO Smith (F P) Wire & Iron Works Inc Soule Steel Co STEELCRAFT MFG CO Stewart Iron Works Inc THORN (J S) Co Truine Development TRUSCON STEEL CO DIV REPUBLIC STEEL CORP UNITED STEEL FABRICATORS INC VINGINIA METAL PRODUCTS CORP Weather-Proof Co Williamsburg Steel Products Co Williamsburg Steel Products Co

#### DOORS, PLYWOOD

Aetna Plywood & Veneer Co American Plywood Corp ANGEL NOVELTY CO ATLAS PLYWOOD CORP Braund (W B) Co Buffelen Lumber & Mfg Co CURTIS COMPANIES INC Darie Blywood Core Davis Plywood Corp GEORGIA-PACIFIC PLYWOOD CO HIGGINS INC LONG-BELL LUMBER CO

MENCEL CO Pacific Mutual Door Co Plywoods-Plastics Corp Silerest Co Sincrest Co Simpson Logging Co Weisberg-Baer Co

#### DOORS, PONDEROSA PINE

CARR ADAMS & COLLIER CO CARR ADAMS & COLLIER C Cole Mig Co CURTIS COMPANIES INC Farley & Loetscher Mig Co GREGG & SON Himes (Edward) Lumber Co Hintig Mig Co Lord C-Ideal Co LONG-BELL LUMBER CO LONG-BELL BURGER Morgan Co Mussman & Shafer Inc Northern Sash & Door Co Rock Island Millwork Co Silerest Co Spokane Sash & Door Co

#### DOORS, PREFIT

Buffelen Lumber & Mfg Co Burke Millwork Co Cruver-Langhardb Door Co Farley & Loctscher Mfg Co Ideal Co Ideal Co Ipik Plywood Corp LONG-BELL LUMBER CO Lutze Wm R Co PAINE LUMBER CO LTD Silerest Co Silerest Co

# DOORS, REVOLVING

International Steel Co Michaels Art Bronze Co Revolvodor Corp

#### DOORS, SCREEN, WOOD FRAME

TRAME ALUMATIC CORP OF AMERICA American Sash & Door Co Angel Novelty Co Bardhart (A W) Co Barnhart (A W) Co Burke Millwork Co CARR ADAMS & COLLIER CO Chamberlin Co of America COFFMAN (R G) CO INC Continental Screen Co CROSSETT LUMBER CO LAUSSETT LUMBER CO Crown Shade & Sereen Co CUNTIS COS INC Dennis (W J) & CO Farley & Loetscher Mfg Co Fordyce-Crossett Lumber Co General Woodraft Co GREGG & SOM Hemphill (A D) Co Holister Coll Spring Mfg Co Huitig Mfg Co Huitig Sash & Door Co Tdeal Co Ideal Co KEYSTOME WIRE CLOTH CO KINZUA PINE MIUS CO LONG-BELL LUNNER CO Morgan Sash & Door Co National Screen Co Inc National Screen Door Co Viethers Co Northern Sash & Door Co Northwest Door Co Orange Screen Co Pacific Mutual Door Co Draing Peterin Ubor Co Phenic Mutau Iboor Co Phenic Mick Wi & Co Rock & Muser Co Robins Mrg Co Rock Island Millwork Co RussELL (FC) CO Schumacher (FE) Co Semeca kumber & Millwork Co Silerent Co Spokane Sash & Door Co Universal Pabricators Weather-Proof Co Weather Proof Co West Coas Screen Co White Pine Sash Co

#### **DOORS, SHOWER**

American Extruded Products Co BINSWANGER & CO Allertant Ectimates Co California Shower Door Co Flat METAL MFG CO Glass Shower Door Co Ketcham (G B) Mg Corp Lehman Sprayahield Co Milwautke Stamping Co National Metal-Art Mfg Co National Mirror Works PITTSBURCH PLATE GLASS CO Safetee Glass Co Safetee Glass Co Shower Door Co of America Windsor Shower Door Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

#### DOORS, SIDEWALK

Adams Co BiLCO CO Edwards Mfg Co Fries & Son Steel Construction & Engineering Logan Co METAL CRAFTERS

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#### DOORS, SLIDING, RESIDENTIAL

Accurate Metal Weatherstrip Co American Steel Door Co AMERICAN WELDING & MFG CO Arcadia Metal Products Co Bayley (William) Co Better-Bit Door Co Buffeien Lumber & Mfg Co Buffelen Lumost Cole Mfg Co CURTIS COMPANIES INC Dorfio Mfg Co Exer-Wood Corp Ez-way sales inc div of minnesota wood specialties inc Farley & Loetscher Mfg Co GLIDE WINDOWS INC Ipik Plywood C IDIN P'IYWOOD CO Knape & Vogt Mfg Co LONG-BELL LUMBER CO MALIBU MFG CORP METAL PRODUCTS CORP H & M Woodworking Co M A 14 YANDULIS COR Morran Co Norran Co Nasco Wood Products Ine National Door Co NORDANL CO NORDANL CO Orchard Mfg Co Rock Island Millwork Co Silerest Co Si Silerest Co Silerest Co Silerest Co Siler Vista Sliding Sash Co WEL-BILT PRODUCTS CO WOODALL INDUSTRIES

DOORS, SOFTWOOD Aetna Plywood & Veneer Co American Sash & Door Co ANGEL NOVELTY CO ATLAS PLYWOOD CORP Cole Mfg Co CURTIS COS MIC Farley & Loetscher Mfg Co HARBOR PLYWOOD CORP Huttig Sash & Door Co LONG-BELL LUMBER CO Marquart Million Marquart Millwork Co Mauk Seattle Lumber Co M & M Wood Working Co Morgan Co Northern Sash & Door Co Northwest Door Co Pacific Mutual Door Co Northwest Door Co Pacific Mutual Door Co Products-From-Sweden Inc Roach & Musser Co Robinson Mfg Co Rock Island Milwork Co Silerest Co Silerest Co Simpson Industries Inc U S PLYWOOD CORP

#### DOORS, ROLLING, STEEL

Cornell Rolling Door Works Kinnear Mfg Co Lawrence Steel Co Mahon (B C) Co

#### DOORS, ROLLING, WOOD

Cornell Rolling Door Works Kinnear Mfg Co Silcrest Co

#### DOORS, STORM, WOOD & METAL

Alseo Ine Anderson (V E) Mfg Co ANGEL NØVELTY CO BUCKEYE SCREEN & WEATHERSTRIP CO BUCKEYE SCREEN & WEATHERSTRIP CO Buffelen Lumber & Mfg Co Chamberlin Co of America Cole Mfg Co Compo-Miracle Products Co CURTIS COMPANIES INC Farley & Loetscher Mfg Co GREGE & SON Hemphill GREGG & SON Hemphill (A D) Co Hines (Edward) Lumber Co Holister Coil Spring Mfg Co Huttig Mfg Co CONG-BELL LUMBER CO Marquart Millwork Co M & M Woodworking Co Morgan Co Morgan Co \* Northwest Door Co

Phenix Mfg Co Prentice (F W) & Co Robbins Mfg Co RuSsELL (F C) CO Schumacher (F E) Co Silcrest Co Spokane Sash & Door Co Weather-Proof Co Weather-Proof Co Wheeler-Osgood Co White Pine Sash Co Window Conditioning Co

#### DRAINS, FLOOR

Allen Steel Products Covert (H W) Co Donley Brothers Industrial Iron Work KEWANEE MFG CO Workr Louden Machinery Co MAJESTIC CO Robinson Clay Product Co Syracuse Alloy Metals Corp Vestal Stove Co Zurn (J A) Mfg Co

DRAINS, ROOF CORP Industrial Iron Works Robinson Clay Product Co Zurn (J A) Mfg Co

#### DRESSERS, GRINDING WHEEL

Atkins (E C) Div Borg Warner Corp BEHR-MANNING CORP DIV NORTON CO CALDER MFG CO Ideal Industries Inc

#### **DRILL PRESSES**

ATLAS PRESS CO BOICE CRANE CO Champion Blower & Forge Co ROCKWELL MFG CO DELTA POWER TOOL DIV Walker-Turner Co Div Kearney & Trecker Corp

#### DRILLS, BRICK, CONCRETE, TILE

HILE Acterman-Johnson Co Arro Expansion Bolt Co BLACK & DECKER WFG CB Bucabel Tool Mfg Co Carboloy Inc Chicago Penematic Tool Co Damaseus Steel Products Corp Gardner-Denumatic Tool Co Damaseus Steel Products Corp Gardner-Denumatic Tool Co Holub Industries Inc Kennametal Inc. Kraeuter & Co Inc MALL TOOL CO Mephisto Tool Co Co Inc Mephisto Tool to Inc Millers Falls Co Millers Falls Co MilwAUKEE ELECTRIC TOOL CORP New England Carbide Tool Co PAINE CO Proto Tool Co PAINE LU Proto Tool Co Bainey-Tools Rawiping Co Ine Industrial Div RED DEVIL TOOLS STANLEY TOOLS DIV STANLEY WORKS DIVISION DIVISION INC. Star Expansion Products Inc Super Tool Co SYNTRON CO Tilden Tool Mfg Co Vaughan & Bushnell Mfg Co Vulcan Tool Mfg Co Warwood Tool Co Wodack Electric Tool Corp

## DRILLS, ELECTRIC, PORTABLE DRYERS, CALCIUM

Albertson & Co Inc BLACK & DECKER MFG CO BRADFORD MACHIKE TOOL CO Chicago Pneumatic Tool Co Cincinnat Electrical Tool Div Le Blond (B K) Maching Tool Co (IK K) MACHINE TOOL (S) Clarke Kanding Machine Tools DIV CUM-MINS-CHICAGO CONP Denver Floor & Salety Supply Co Description as Salety Supply Co DASCO INDUSTRIES INC INDEPENDENT PNEUMATIC TOOL CO Kett Tool CO inapp-Monarch Co ouisville Electric Mfg Co IALL TOOL CO MALL TOL CO Millers Falls Co Millers Falls Co NitwalvKE ELECTRIC TOOL CORP Networks Electric Tool Tue Postrar Calls Machine Co R C S TOOL SALES CORP School Sales Corp Encodway Mfg Co SKIL CORP Speedway Mfg Co STANLEY ELECTAIC TOOLS DIV STANLEY WORKS SYNTRON CO Thiden Tool Mfg Co Wallace (J D) & Co Wodack Electric Tool Corp

APRIL 1953

DRILLS. GLASS Barrett (William L)

DRILLS, RIGHT ANGLE, FLECTRIC

LACK & DECKER MEG CO

DRILLS, WELL BUCYRUS-ERIE CO Consolidated Industries Ka-Mo Tools Inc

#### **DRILLS, WOOD**

DRILLS, WOOD
Cleveland Twist Drill Co
Deuse (E W) Co
Forest Clty Bit & Tool Co
Graham (John H) & Co Inc
Graendiel To & Die Corp
Greendiel To & Die Corp
Greendiel To & Die Corp
Greendiel To & Die Corp
Stanley Tools Div The STANLEY
WORKS
Star Bit & Tool Co
Star Bit & Tool Co
Star Bit & Tool Co
Contact Twist Drill Co

### DRIVERS, & FASTENERS,

CARTRIDGE ACTUATED TYPE Mine Safety Appliances Co Powder Power Tool Co RAMSET FASTENERS INC REMINGTON ARMS CO INC

#### DRIVERS, GLAZIER'S POINT

Fletcher Terry Co Glazier's Tool Mfg Co RED DEVIL TOOLS Sommer & Maca Glass Machinery Co

#### DRIVERS, STEEL POST

AMERICAN STEEL & WIRE CO Rethlehem Steel Co CECO STEEL PRODUCTS CORP KEYSTOME STEEL & WIRE CO Mid-States Steel & Wire Co Northwestern Steel & Wire Co Sweet's Steel Co

#### DROP CLOTHS

American Ladder Co American Tent & Awning Co Bemis Brothers Bag Co Bemis Brothers Bag Co Clifton MFg Co DANIELS (C R) INC Fulton Bag & Cotton Mills May (D C) Co New York Drop Cloth Mfg Co Ine Standard Awning Co Textile Industries Inc Werner Canneas Froducts Co

#### DRYERS, AIR

Attapulgus Clay Co Bailey Lumber Co Dow Chemical Co Frigidaire Division General Motors Corp GENERAL AIR CONDITIONING CORP Peirce-Phelos Puritan Sales Co SOLVAY PROCESS DIV ALLIED CHEMICAL & DYE CORP Stewart. Warner Corp Tamms Industries Ine Union Mfg & Gauge Co

CHLORIDE COLUMBIA CHEMICAL DIV PITTSBURGH PLATE GLASS CO PLATE WEARS VO how Chemical Co SOLVAY PROCESS DIV ALLIED CHEMICAL & DYE CORP Tamms Industries Inc

DUCTS, ALUMINUM WILLIAMSON HEATER CO

DUCTS, HEATING NON-METALLIC MICLANDING CORPSIDENT CORP CAREY (PHILIP) MFG CO JOHNS-MANVILLE CORP SONOCO PRODUCTS CO Universal Concrete Pipe Co Ine

#### DUCTS, SHEET METAL

Continental Steel Corp INLAND STEEL PRODUCTS CO MAJESTIC CO MUELLER (L J) FURNACE CO REYNOLDS METALS CO BUILDING PRODS DIV WILLIAMSON HEATER CO

#### DUMPS, ASH, FIREPLACE

Adams Co Allen Steel Products BENNETT-IRELAND CO BOSTWICK STEEL LATH CO Colonial Fireplace Co COPCO STEEL & ENGINEERING CO Covert (H W) Co Donley Brothers Gabriel Steel Co Industrial Iron Works KEWANEE MFG CO MAJESTIC CO Price-Evans Foundry Corp SUPERIOR FIREPLACE CO perialties Div

Tamms Industries Inc Truscon Laboratories Div Devoe & Raynolds Co

EDGES, METAL ROOF Alabama Metal Lath Co Allen Steel Products BERGER MFG DIV REPUBLIC STEEL CORP Continental Steel Corp Gary-Pioneer Steel Corp Illinois Zine Co INLAND STEEL PRODUCTS CO Klauer Mfg Co New Holland Metals Co Farrington Co TENNESSEE COAL IRON & RAILROAD CO UNITED STATES STEEL CO eling Corrugating Co

# EDGERS, FLOOR, SANDING

CB C0 Clarke (Alex A) Mfg Co Clarke Sanding Machine Co Detroit Surfacing Machine Co Florboss-Habit Co Goldblatt Tool Co Goldbland Hilger Co Holt Mfg Co Lincoln-Schlueter Floor Machine Co PITISBURGH PLATE GLASS CO RED DEVIL TOOLS SKIL CORP

### **ELECTRIC PUSH BUTTONS**

CORBIN (P & F) DIV AMERICAN HARD-WARE CORP LOCKWOOD HARDWARE MFG CO NUTONE INC Skillman Hardware Co

# ELEVATORS, HAND POWER Barrett-Cravens Co Energy Elevator Co Market Forge Co Sidney Elevator Mfg Co

**ELEVATORS, RESIDENCE** 

Chelsea Elevator Co Inclinator Co of America Kimball Brothers Co Otis Elevator Co Sedgewick Machine Works Shepard Elevator Co

#### ENCLOSURES, UNIT **KITCHEN, METAL, FOLDING** Orchard Reathers Inc

#### **ENGINES, DIESEL**

ALLIS-CHALMERS MFG CO Buda Co Caterpillar Tractor Co Cleveland Diesel Engine Div General Motors Corp Corp Cummins Engine Co Fairbanks Morse & Co GMC Truck & Coach Div General Motors HARNISCHFEGER CORP MARNISCHFELEN CONF Hill Diesel Engine Co Nordberg Mig Co OLIVER CORF Watkesha Motor Co Witte Engine Works Die Ott-Well Supply Co WORTHINGTON CORF CONSTRUCTION EQUIPMENT DIV

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

#### **ENGINES. GASOLINE**

PENGINES, GASOL ALLIS-CHALMERS MFG CO Briggs & Stratton Corp Buda Co Fuller & Johnson Mfg Co HOMELITE CORP International Harvester Co International Harvester Co KONLER CO Master Woodworker Mfg Co Novo Engine Co BLIVER CORP Beady-Dower Co Sallsbury Motors Div Wayne Mfg Co Universal Motor Co Waskenba Motor Co WESTINGHOUSE ELECTRIC CORP WITCE Engine Works Div Oil-Well Supply Co

#### ENTRANCES, DOOR

AETNA STEEL PRODUCTS CORP Burke Millwork Co Cameron (Wm) & Co Inc CARR ADAMS & COLLIER CO CURTIS COS INC Farley & Lootscher Mfg Co GREGG & SON NEATILATOR INC Huttig Mfg Co Ideal Co KAWNEER CO LONG-BELL LBR CO M & M Mfg Co Morgan Co Boach & Musser Mfg Co Bock Island Millwork Co Silcrest Co Simpson Logging Co Supkane Sash & Door Co

#### **ENTRANCES, STORE, METAL**

Apex Brass & Bronze Works Badger Wire & Iron Works Inc Dahlstrom Metallic Door Co International Steel Co KAWNEER CO Inc

#### **EQUIPMENT, BARBECUE**

Adelphian Mill RENNETT-IRFLAND CO. Benney Bros GRILLCRAFT CO Industrial Iron Works MAJESTIC CO Master Metal Prode Ine Ohio Store Co Southern Barbeque Grill Co Wiemann (Ernest) Iron Works

#### **EQUIPMENT, BARN**

Advance Car Mover Co Badger Corrugating Co Advance Car Morer Co Badger Corrugating Co Berg Equipment Corp Euler Mig Co Clay Equipment Corp Colourn Mig Co Cronun Mig Co General Implement Corp General Implement Corp General Implement Corp Green Mig Co Hudson (H D) Mig Co Humer Mig Co Louden Machinery Co Milwauke Hay Tool Co Milwauke Hay Tool Co Milwauke Hay Tool Co Milwauke Hay Tool Co Milwauke Ed S Co Ners Mig Co Olson Mig Co Olson Mig Co Starline Inc

#### **EQUIPMENT, FARM**

Advance Car Mover Co Aerovent Fan Co Air Devices Inc ALLIS-CHALMERS MFG CO American Blower Co American Blower Co American-Larson Ventilating Co Backer Corrugating Co Bastian-Blessing Co Beatrice Steel Tank Mfg Co Bell (C S) Co BENNETT-IRELAND INC Breyer Bros Whi Brower Mfg Co Buffalo Forge Co Brower Mfg Co Butler Mfg Co Celina Mfg Co Century Electric Co Colum Mfg Co Colum Mfg Co Colum Mfg Co Columbian Steel Tank Co Continental Steel Corp Deere & Co Demptor Mill Mfg Co Deth Mfg Co Electric Wheel Co Fairbains Morre & Co Fairbains Morre Mfg Co Faribains Morre Mfg Co GENERAL ELECTRIC CO AIR CONDITION-ING DEPT General Implement Corp Guard-It Mfg Co Huarmore Co Gosten Mfg Co Guard-It Mfg Co Hargrore Co Hargrore To Hemphill (A D) Co Hemphill (A D) Co Hemphill (A D) Afg Ce Jig Electric Ventilating Co Iig Electric Ventilating Co Hister Mfg Co Hater Mfg Co King Company Klauer Mfg Co La Crosse Steel Boofing & Corrugating Co Lockjoint Wood Prods Co Hundle Mfg Co Lockiont Model Prods Co Massey Harris Co Inc Milvaute Hag Tool Co Moline Iron Works Mundle Mfg Co Hyere (F E) & Bro Co Nyer (F E) & Bro Co Paper Machine Co Proce Machine Co Patch (A H) Inc Peerless Electric Co PITTSBURGH PLATE GLASS CO Queen Store Works Rapids Machinery Co Robinson Clay Product Co Robinson Ventilating Co Budens (N. U. Co Rudeen (N H) Co Sargent-Roundy Corp Shaw (H C) Cu SHEPLER MFG CO SHEPLER WFG CO Shurthe Ico Shurthe Ico Sharihe Ico Sherihe Ico Swett (A L) Fron Works Swift Mfg Co U # Challenge Co U # Constance Co Universal Houst & Mfg Co Universal Houst & Mf

#### **EQUIPMENT, FIREPLACE**

Adams Co Atlanta Store Works Barnhart (A W) Co BENNETT-IRELAND CO BENNETT-IRELAND CO Builder's Fireplace & Supply Co Chamberlin Co of America Inc CHATTANODGA IMPLEMENT & MFG CO Colonial Brass Co Colonial Fireplace Co Covert (H W) Co Pouley Rose Pou Tailey Porge WART PRODUCTS DIV STRATTON & TERSTEGGE CO MEATILATOR INC Howes (18 M) Inc Industrial Iron Works Logan Co Induman Logan Co WALESTIC CO METAL CRAFTERS Meyers (Fred L) Mfg Co ONIO FOUNDAY & MFG CO Prefers Manufacturing Co Prefers Manufacturing Co READYBUILT PRODUCTS CO Revenerant Co Sheffield Manufacturing Co Smith (F P) Wire & Iron Works Smith (John P) Co Thermo-Rite Manufacturing Co Vestal Ritore Co WICKWIRE SPENCER STEEL DIV COLO-RADO FUEL & IRON CORP

#### **EQUIPMENT, HOG**

EQUIPMENT, HOG Beatrice Steel Tank Mig Co Bernard (Philip) Co Brower Mig Co Celina Maundacturing Co Clar Equipment Corp Clearwater Tank Co Franklin Equipment Co Hargrove Company Hastings Equity Grain Bin Manufacturing Co Hudson (H D) Manufacturing Co Jance Manufacturing Co Louden Machinery Co Martin Steel Proda Co Ney Manufacturing Co Bion Manufacturing Co Bion Manufacturing Co Biont Fantis Metal Cuivert Co Starline Ine

#### **EQUIPMENT, POULTRY**

P EQUIFMENT, FOOLIKI Adams-Thuma Co Acroil Producte Co, Ince American Lucubatom Ince American Duro Co Baltimore Paper Box Co Beatrice Steel Tank Manufacturing Co Brower Manufacturing Co Brower Manufacturing Co Buckeye Incubator Co Cicee-To-Ature Co Cyclone Manufacturing Co

Excel Metal Cabinet Co Ine Excession Store & Manufacturing Co SENERAL ELECTRIC CO AIR CONDITION-ING DEPT General Implement Corp Green Lumber Co Harder Silo Co Heilter-Aller Co Hopson (W C) Co Hudgon (H D) Manufacturing Co Jamea Manufacturing Co James Manufacturing Co JOHNS-MANVILLE CORP Johnas-Marusteturing Co Johnas-Marville Cohr Keen Eguipment Co Ine Klein Manufacturing Co Langh Mir Co Langh Mir Co Langh Mir Co Macomb Steel Products Co Miller (J W) Co National Mir & Stamping Co New Era Eguipment Co Ohio Store Co Paragon Utilities Corp Perfection Store Co Perfection Store Co Purifor Products Ine Gueen Incelustor Co Guino Wire & Iron & Brooder Co Europ Perfection Store Co Purifor Products Ine Gueen Incelustor Co Reliable Incubator & Brooder Co RILCO LAMINATED PRODUCTS INC Royal Manufacturing Co Sheer (H M) Co Simplex Brooder Stove Co Starline Inc Starline Ine Bure-Hatch Incubator Co THMBER STRUCTURES INC Trumbull Electric Mirg Co United Steel & Wire Co Unit Structures Ine Wabash Paper Box Co Western Stoneware Co White Manufacturing Co

• ESCAPES, FIRE ARTCRAFT ORNAMENTAL IRON CO Badger Wire & Iron Works Ine BELSON MFG CO Days Automatic Fire Encape Co General Detroit Cop Grand Rapids Wire Products Co Loan Co Logan Co MESKER (GEORGE L) STEEL CORP METAL CRAFTERS ST PAUL FOUNDRY & MANUFACTURING C Smith (F P) Wire & Iron Works

#### ESTIMATING SERVICES Miller-Piehl Co REMINGTON RAND INC

Linderw od Corp

#### **FABRICATORS, LUMBER** erative Industri

Pacific Board Fabricators TIMBER ENGINEERING CO WEYERNAUSER SALES CO WOODALL INDUSTRIES INC

#### FABRIC, REINFORCING

Porbes Steel Corp. Northwestern Steel & Wire Co. PITTSBURGH STEEL PRODUCTS CO TRUSCON STEEL CO DIV REPUBLIC STEEL CORP.

#### FANS, EXHAUST, WALL & **CEILING, ATTIC & KITCHEN**

Acme Equipment Co Acrovent Fan Co Airmaster Corp Air Temperature Inc Air Temperature Ine American Biower Corp CO American Coolair Corp Arex Co Autorent Fan & Blower Co Bar-Brook Mfg Co Berns Mfg Co BicLin (H C) CO INC Broan Mfg Co Ine BufLin (H C) CO INC Broan Mfg Co Ine BufLin (H C) CO INC CAREY (PHILIP) MFG CO Champion Blower & Forte Co Chebasa Fan & Blower Co Circulators & Devices Mfg Co Circulators & Devices Mfg Co Circulators & Devices Mig Co Clarage Fan Co COLEMAN CO COOK (LOREN) CO CROSLEY DIV AVCO MFG CO Dayton Electric Mig Co Destonate Fans Div American Machine & Metalica Metals Inc ehl Mfg Co Electrical Div Singer Mfg Co Eagle Picher Co EMERSON ELECTRIC MFG CO FASCO INDUSTRIES INC

General Blower Co GENERAL ELECTRIC CO APPARATUS DEPT Brush Nail Expansion Bolt Co

HERMAN NELSON Holcomb & Hoke Mfg Co Hudson (H D) Mfg Co Hunter Fam & Ventilating Co Huntington Industries Inc Ilg Electric Ventilating Co Industries Inc International Engineering Inc International Engineering Inc James Mig Co LAU BLOWER CO LAU BLOWER CO Macleod Co Macleod Co Marte Co Muran Co HURRAY CO OF TEXAS National Appliance Co National Gas Equipment Co Inc New Mit Co HUTOME INC Propellaire Inc Propellaire Inc Prove Co INC Reed Unit-Fana Inc Bobbina & Myers Inc Russell Electric Co Samson-United Corp Schwitzer-Cummins Co Sheet Metal Products Co ShFevetort Engineering Co ering Co Eng Shreveport Engineering ( Signal Electric Co SIN-JIN PRODUCTS CO Sparton Electric Co Standard Electric Mfg Co STEWART MFG CO SUTTON (O A) CORP Forrington Mfg Co FRADE-WIND MOTORFANS INC Trane Co Trane Co Trane Co To Ventilator Co Villity Appliance Corp Vising Air Conditioning Corp Wagner Electric Corp WESTINGHOUSE ELECTRIC CORP ELEC-TRIC APPLIANCE DIV West Wind Corp Winco Ventilator Co

#### FANS, PORTABLE, WINDOW VENTILATING

Controls Ind Air Controls Inc Bar-Brook Mig Co BiGLIN (H C) CO INC Chelsea Fan & Blower Co Dichl Mig Co Electrical Dis Singer Mig Co EMERSON FLECTRIC MFG CO FASCO INDUSTRIES INC General Blower Co GENERAL ELECTRIC CO APPARATUS DEPT Hartzell Propeller Fan Co Div Castle Hills HUNTER FAN & VENTILATING CO The Electric Ventilating Co KISCO CO INC James Mfg Co Louden Machinery Co MIAMI CABINET DIV CAREY (PHILIP) MFG CO MURANY CO OF TEXAS eerless Electric Co Peerless Electric Co Perma-Jack Corp Reed Unit-Fans Inc Robbins & Myern Inc Rignal Electric Co WESTINGADUSLANCE DIV WISTINGADUSLANCE DIV Winco Ventilator Co

#### FANS, VENTILATING, BARN,

ELECTRIC Allen Steel Products Emerson Electric MFG CO General Electric Co Apparatus Dept James Mfg Co LAU BLOWER CO Ward (Edgar T) Co Ine WESTINGHOUSE ELECTRIC CORP

#### FASTENERS, ASBESTOS, **CEMENT, SIDING**

E G Building Fasteners Corp Elastic Stop Nut Corp of America Fiwale Equipment Mfg Co JOHNS-MANVILLE CORP UNITED STATES GYPSUM CO

#### FASTENERS, CONCRETE

FORM GETTY (H S) & CO INC Sommer Metalcraft Corp Starline Inc Williams Form Engineering Corp

#### FASTENERS, FIBER, WALLBOARD

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

INSULITE DIV MINNESOTA & ONTARIG PAPER CO Tinnerman Products Inc UPSON COMPANY U S Expansion Bolt Co WOOD CONVERSION CO

# FASTENERS, LATH, METAL BERGER MEG DIV REPUBLIC STEEL CONP BOSTWICK STEEL LATH CO ECCO STEEL PRODUCTS CONP Goldsmith Metal Lath Co HATTMOD LEVYSUM COS CO PENN METAL CO INC Boule Rice Co

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Soule Stee' Co TRUSCON STEEL CO UNITED STATES GYPSUM CO

#### FASTENERS, STEEL, CORRUGATED

Acme Steel Co Independent Metal Strap Co Larson (Charles 0) Co Packard (E B) Co Parker-Kalon Corp Signode Steel Strapping Co STANLEY WORKS

#### FASTENERS, WOOD JOINT

Acme Steel Co BERGER MEG DIV REPUBLIC STEEL CORP Knape & Vogt Mfg Co LOCKWOOD HARDWARE MFG CO Packard (E B) Co RODDIS PLYWOOD CORP STANLEY WORKS Superior Fastener Corp Timber Engineering Co Wright Products Co

#### FELT, ROOFING

BARRETT DIV ALLIED CHEMICAL & DYE Genasco Inc Ronande Genasco Inc CELOTEX CORP CERTAIN-TEED PRODUCTS CORP Globe Roofing Products Co Inc Logan-Long Co MACKLANBURG-DUNCAN CO Nelson (B F) M Protective Papers Mfg Co

#### FELT, ROOFING, ASPHALT IMPREGNATED

AMERICAN ASPHALT ROOF CO BARRETT DIV ALLIED CHEMICAL & DYE CORP BIRD & SON INC CAREY (PHILIP) MFG CO CELOTEX CORP FLINTRAFE COMMENT

Ford Roofing Products Co JOHNS-MANVILLE CORP Lehon Co Reilly Tar & Chemical Corp RICHKRAFT CO RUBEROID CO TEXAS CO UNITED STATES GYPSUM CO

#### FENCE, BARBED WIRE

AMERICAN STEEL & WIRE CO Atlas Fence Co Badger Corrugating Co Badger Cornigating Co Continental Steel Corp KEYSTONE STEEL & WIRE CO MICHOLS WIRE & ALUMINUM CO NOTHWESTER Steel & WIRE Co PITTSBURGH STEEL PRODUCTS CO REPUBLIC STEEL CORP Sheffield Steel Corp Stewart Iron Works Co TENNESSEE COAL INON & RAILROAD CO WICKWIRE SPENCER STEEL DUV COLO-RADO FUEL & IRON CORP

#### FENCE, CHAIN LINK

P FERCE, CHAIN LINK American Chain Link Protec Co Anchor Post Products Ine Allas Fence Co Century Fence Co Claint Link Fence Corp Colorado FUEL & IRON CORP Countrental Steel Co Colorador FUEL & IRON CORP Comment Int Arctican Steel & Wire Co Colorador De Contractor Colorador Contractor Contractor Contractor Contractor Contractor Contractor Contractor Contractor Nickols Wire Co Nickols Wire Co Anthe Co Cashe Co Ine Contractor Contracto Stewart Iron Works WICKWIRE SPENCER STEEL DIV COLO-RADO FUEL & IRON CORP

#### FENCE, ELECTRICALLY CHARGED

General Implement Corp

AMERICAN BUILDER

National Metal Products Co RED DEVIL TOOLS Sampsel Time Control Inc

•.

#### FENCE & GATES, LAWN, ORNAMENTAL

American Chain Link Fence Co AMERICAN STEEL & WIRE CO Anchor Post Fence Div Anchor Post Products Inc

Ine Arnold-Dain Corp ARTCRAFT ORNAMENTAL IRON CO Atlas Fence Co Bellkool Co Beilison To Beison Mig Co CORP Bethelem Steel Co Bethelem Steel Co Bethelem Steel Co Bethelem Steel Co Calo STEEL PRODUCTS CORP Chair-Link Fence Corp Chair-Link Fence Corp Clay Equipment Co CoFFMAM (6) CO INC COFFMAM (6) CO INC COFFMAM (6) CO INC COLORADO FUEL & IRON CORP Columbia Steel Co COLORADO FUEL & INON CONF Columbia Steel Co Continental Steel Corp Cyclone Fence Div American Steel & Wire Co Deastar Iron & Steel Co Des Moirnes Ornamental Iron Co Forber & Steel Corp Forber Steel Corp Franklin Ruignment Co GENERAL BRONZE CORP General Implement Corp Franklin Kaulpment Co General BROWZE CORP General Implement Corp Hawkins From Co Inc Ultinois Wire & Mire Co Logan Co METAL CRAFTERS Meyers (Fred L) Mire Co Mid-States Steel & Wire Co Nicholss wire & AluMiNUM CO Northwestern Steel & Wire Co Page Steel & Wire Div American Chain & Cable Co Inc Pittsburgh Steel Products Co Redwood Garden Materials Co Samoe Granamental Fron Korks Inc Standard Mig Co Fewart Inco Work Inco A saltenado Co Fewart New See Seeces STEEL DIV CoL-GRADO FUEL & IRON CORP

#### FENCE, SNOW

Capitol Fence Co Gaynor (E S) Lumber Co Humboldt Fence & Supply Co Illinois Wire & Mifg Co Kinzua Pine Mills Co Lineraft Inc Mattson Wire & Mfg Co Nebraska Bridge Supply & Lumber Co ROWE MFG CO Scawfit Force & Mfg Co Security Fence & Mfg Co Wheeler-Arnold Co

FENCE, WIRE AMERICAN STEEL & WIRE CO Bethlehem Steel Co COLORADO FUEL & INON CO COLORADO FUEL & IRON CO Continental Steel Co Continental Steel Corp Copperweld Steel Corp Bortes Steel Corp IGHES & LAUGHLIN STEEL CO KEYSTONE STEEL & WIRE CO Northwestern Steel & Wire Co Pitshurgh Steel Functions Pitshurgh Steel Functions TERMESSEE COAL IRON & RAILROAD CO WICKWIRE SPERCER STEEL DIV COL-ORADO FUEL & IRON CORP

#### FENCE, WOOD

Adelphian Mill Arnold-Dain Corp Atlas Fence Co BRADLEY LUMBER CO OF ARK Capitol Farme Co BRADLEY LUMBER CO OF ARK Capitol Fence Co Concord Woodworking Co CONNOR LUMBER & LAND CO CROSSETT LUMBER CO Davis & Shell Co Elhide Company Fordree-Trossett Lumber Co Frodge-Crossett Lumber Co Frodge-Apart Co Elhide Company Fordree-Consect Lamber Co Forgelia-PACIFIC PLYWOOD CO Hume (Efferred) Lumber Co CEORGIA-FACIFIC PLYWOOD CO Hines (Edward) Lumber Co Ullinois Wire & Mig Co Linerate Inc LORG-BELL LUMBER CO Matison Wire & Mig Co Nebrasks Bridge Supply & Lumber Co Redwood Garden Materials Co ROWE WFG CO Southern Lumber Co Texas Fence Co WEYERNAEUSER SALES CO WHITING FENCE CO Whiting Fence Co Willamette Valley Lumber Co Wilson (A K) Lumber Co Wolfe (Harry M) Wood Products Co

FERTILIZER, LAWN Armour & Co Fertiliner Works Div Hyper-Humus Co Milwaukee Sewerage Commission Swift & Company Walker-Gordon Laboratory Co

#### FILERS, SAW, BAND, CIRCULAR, ETC

Chick Co Div Borg Warner Corp Chattanooga Saw Works Coriey Mfg Co Disston (Henry) & Sons Ine FOLEY MFG CO Hanchett Mfg Co Huther Brothers Saw Mfg Co

#### FILES & RASPS

FILES & RASPS
 American Swiss File & Tool Co
 Atkins (& C) Div Borg Watter Corp
 Deita File Works Inc
 Diviston (Houry) & Sons Inc
 Heller Brothers
 Hoo (R) & Company Inc
 Hook Scraper Mfg (°
 International Twist Drill Corp
 Nicholson File Co
 Plumb (Fayette R) Inc
 Proto Tool Co
 set D Devit Tools
 SIMONDS SAW & STEEL CO

#### FILLERS, CRACK & JOINT

 FILLERS, CRACK & JOINT
 Arme White Lead & Color Works

 Ananastine Paint Products Div
 Chicago
 Bronze & Color Works

 Armersen Variab Co 
 Bronze & Color Works

 Chicago Bronze & Color Works

 Consumers Glue Co

 Patricated Froducts Co

 Falticited Froducts Co

 Falticited Froducts Co

 Foldite Products Co

 Foldite Products Co

 Foldite Products Co

 Foldite Company

 Burban Works

 Consult Products Co

 Foldite Company

 Burban Company
 </ Gumputtie Laboratories JOHNS-MANVILLE CORP Johnston (R F) Paint Co Lasting Products Co Lowe Brothers NATIONAL SYPSUM CO Love Brothers MATIGNAL CYPSUN CO Palsey Products Patterson-Sargent Co Patterson-Sargent Co Patterson-Sargent Co Patterson-Sargent Co Patterson-Sargent Co Pensitike Engineering Co Reardon Co Reardon Co Reardon Co Servicised Products Corp Savogran Co Servicised Products Corp Savogran Co Servicised Products Corp Savogran Co Services Co Service

FILLERS, JOINT, SEWER PIPE CAREY (PHILIP) MFG CO JOINS-MANVILLE CORP Kaul Clay Mfg CO Keystone Asphalt Products Co NATIONAL CLAY PIPE MFRS INC Robinson Clay Product Co Servicised Products Corp

 FILLERS, WOOD
 Acme White Lead & Color Works
 Alahastine Paint Products Div Chicago Bronze & Color Works
 Martican Varnish Co
 Berry Brothers Ine
 Broile Miduay Ine
 Breinig Brothers
 Breinig Brothers
 < Glidden Company Keystone Varnish Co Lowe Brothers Love Brothers O'Brien Corp & Sons Parker (Ira) & Sons Patterson-Sargent Co Peasiee-Gaubert Paint & Varnish Co PitTSEURGH PLATE GLASS CO Pratt & Lambert

Reardon Co Savogran Co Schalk Chemical Co Seidlitz Paint & Varnish Co Sheffield Bronze Paint Corp SHERWIN.WILLIAMS CO Steelote Mfg Co United Gilsonite Laboratories U S PLYWOOD CORP Webb Products Co Wilbur & Williams Co

FILTERS, AIR Abbeon Supply Co Frictiaire Division General Motors Corp NERMAN NELSON OWENS-CORNING FIBERGLAS CORP Research Products Co Trane Co Trion Inc

#### FINANCING SERVICES

P INVANCING SERVICES ALLIES BUILDING CREDITS INC Commercial Credit Corp Jonglas-Guardian Warehouse Corp Investors Syndicate Lawrence Warehouse Co National Life Insurance Co St Louis Terminal Warehouse Co U S Savings & Loan League

#### **FINISHERS, CONCRETE** FLOOR

Whitman Mfg Co

#### FINISHES & SEALER, FLOOR

Abesto Mfg Corp Alabastine Paint Products Div Chicago Bronze & Color Works AMERICAN FLOOR SURFACING MACHINE AMERICAN FLOOR SURFACING MAC C0 American Marietta. Co American Marietta. Co Baston Varnish Co Baston Varnish Co Baston Varnish Co Camp Luental Co Chapman Chemical Co Chapman Chemical Co Chicago Brozze & Color Works Chi-Xamei Paint & Varnish Co Clarics Sanding Machine Co Continental Abestos & Befining Corp Cromar Co Peros & Raynolds Co Inc Pu, Punt, (E 1, Pu, Nemours & Co Inc Du Pont (E I) De Nemours & Co Ine FLINTKOTE CO INC Franklin Research Co Glidden Co Franklin Keesarch Co Giliden Co Hilger Co Horn (A C) Company Inc International Chemical Co Johnson (S J & Co Inc Johnson (S J & Co Inc Minnesota Mininga & Mrg Co Minnesota Nininga & Mrg Co Minnesota Piaton Corp Mensoan To CHEMICAL CO Nu Surfas Corporation O'Brien Corp Pierce A Sterens Inc Pierce & Sterens Inc Pierce & Sterens Inc Pierce & Sterens Inc Standbort LJ. Sons Standbard Floor Co Standbard Floor Co Stelevicto King Co Tufferet Co Inc U S PLYWOD CORP Vita-Var Corp Vaterion Ste Empire Varnish Co Vita-Var Corp Waterlox Div Empire Varnish Co Wesco Waterpaints Ine Wethrill (Geo D) & Co X-Pando Corp

#### FIREPLACE, OUTDOOR & EQUIPMENT

BENNETT-IRELAND INC Builder's Fireplace & Sunnly Co CHATTANOOGA IMPLEMENT & MFG CO Colonial Brass Co Donley Brothers Co Grill-Craft Co Hart Products Inc

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

HEATILATOR INC Industrial Iron Works Logan Co MAJESTIC CO MATESTIC CO Mexico Refractories Co Outdoor Oven Fireplace Co Perfors Mir C ACE HEATER & TANK CORP SHEFLER WFG CO Silent Clow OII Burner Corp Smith (F P) Wire & Iron Works Southern Barbeque Grill Vestal Store Co Wicerann (Ernest) Iron Works

#### FIREPLACES, UNITS, METAL

METAL BEANETT-IRELAND CO Builders, Pireplace & Supply Co Carey Industries Coret (H W) Co Donieg Bros Gabriel Steel Co Hearthaire Conditioning Co Hearthaire Cristion Fireplace Co MALESTIC CO Northwest Metal Products Inc PRICE FIREPLACE MEATER & TANK CORP READYBUILT PRODUCTS CO SHEPLER WIFE CO SUPERIOR FIREPLACE CO

#### ▶ FITTINGS, ELECTRIC

Appleton Electric Co Arrow Hart & Hogeman Electric Co Bryant Electric Co Gits Molding Corp Hilco Engineering Co Hubbell (Harrey) Inc Laminated Metals Products Corp

#### FITTINGS, PLUMBING & HEATING

AMERICAN RADIATOR & STANDARD SANI-TARY CORP American Sanitary Mfg Co TAY CORP American Sanitary Mig Co Autoyre Co Barnes Mig Co BELL & GOSSETT CO BERIGS MFG CO BUEL & GOSSETT CO BUEL & GOSSETT CO Central Brass Mig Co Crast (w A) & SON MFG CO Crast (w A) & SON MFG CO Crast (a) & SON MFG CO Crast (a) & SON MFG CO Crast (a) & SON MFG CO Crast (b) & SON MFG CO Crast (c) & SON MFG CO Const (c) & SON MFG CO National Trube Co Const (c) & SON MFG CO Scorill (William) CO Frice-Prise Brass Mig CO Scorill MFG CO Scorill MFG CO Scorill MFG CO Scorill MFG CO Sherman (H B) Mfg CO Sherman (C) THRUSH (H A) CO Trane Company Trenton File Nipole Corp Wallworth CO Wolf MFG CO Walworth Co Wolff Mfg Co Youngstown Steel Products Co

FIXTURES, BLACKBOARD Austral Sales Corp

#### ▶ FIXTURES, ELECTRIC **INCANDESCENT LIGHT**

INCANDESCENT LIGH Bell Electric Company Renjamin Electric Mig Co Bryant Electric Co Curtis Lighting Inc Faries Mig Co Frink Cop Glabe Lighting Products Inc Guth (Edwin F) Co Holophane Co Inc Home-Craft Electronic Products Kees (F D) Mig Co Kirlin Co Kraus (Walter S) Co Kasalle PRODUCTS INC Lightolier Co Lightolier Co MARKEL ELECTRIC PRODUCTS INC Miller Co Nos Light Inc Nos-Ray Products Inc Old Guilford Forge Pars & Seymour Inc Parve & CO INC Pyle-National Co Silvray Lighting Inc Simod-Hoiman Co Steher Mig Co Steher Mig Co Superior Plastics Die Common Ine Swain & Bridge Swiveller Co Sylvania Electric Products Ine Technical Glass Co Ine Tuttle & Balley Virden & Co WESTINGHOUSE ELECTRIC CORP

#### FIXTURES, FLUORESCENT

Alkeo Mfg Co Benjamin Electric Co Cupples Co Curtis Lighting Inc Curtus Lighting Inc Day Brite Lighting Inc Eagle Ricetrie Mig Co Inc Flor-0-Lite Co Fluorescent Fabricators Div Easy-Eye Light-ing Inc Fine Corp GENERAL ELECTRIC CO APPARATUS DEPT c at Lighting Co Guth (Edwin F) Co Ingram-Richardson Mfg Co International Lighting Co KIRLIN CO Lightoller Co Long (W H) Co MARKEL ELECTRIC PRODUCTS INC MARKEL ELECTRIC FRODUCTS INC Michaloral Servern Co. MIAMI CABINET DIV CAREY (PHILIP) MFG CO Modern Light & Equipment Co Nos Ray Products Inc Smitheraft Lighting Div Superior Flustics Div Commonwealth Plastic Inc Sylvania Electric Products Inc Virden & Co WESTINGHOUSE ELECTRIC CORP Wheeler Reflector Co Wiley (R & W) Corp

#### FIXTURES, PLUMBING

P FIATUTES Abingdon Potteries ALLIARCEWARE INC AMERICAN RADIATOR & STANDARD SANI-TARY CREP American Sanitary Mfg Co American Sanitary Mfg Co Bowers Pottery Co 881665 MF6 CO Canden Pottery Dir Universal-Rundle Corp CASE (W A) & SON MF6 CO ottery Chicago Pottery Co Clow (James B) & Sons CRANE COMPANY Douglas (John) Co Bonglas (John) Co ELLER CO General Ceramics & Steatite Corp Sanitary Ware Div Hajora Corp Harvey Machine Co Inc Humphers Co Harvey Microw vo Juc Rumniveys Mig Co KONLER CO KONLER CO Mandfeld Sanitary Pottery Co Mardene (Pavit) Tool Corp Micboald (A Y) Mig Co Milwalowe Flush Valve CO Mullary Mig Co Mullary Mig Co Mullary Mig Co Mullary Corp of AMERICA Plumbing Fixture Corp Crice Pfister Brass Mfg Co PROTECTUB INC Richmond Radiaton Co Richinson Clay Product Co Sciable Co Shorman (H B) Mfg Co Shorba Co Inc Speakman Co Streamaster Shower Corp Trenton Potteries Co UNIVERSAL-RUNDLE CORP UNIVERSAL-RUNDLE CORP UNIVERSAL Sanitary Mfg Co Clay Product Co Universal Sanitary Mfg Wilmington Casting Co Zurn (J A) Mfg Co

#### **FIXTURES, SHOWER**

American Brass Mfg Co AMERICAN RADIATOR & STANDARD SANI-TARY CORP Central Brass Mfg Co CRANE COMPANY ELIER CO ELJER CO FIAT METAL MFG CO MILWAUKEE FLUSH VALVE CO MUCHEE Co Mueller Co Price-Pfister Brass Mfg Co Ravena Metal Products Co Sanitary-Dash Co Scovill Mfg Co Speakman Co Streamaster Shower Corn

#### FIXTURES, STORE LIGHTING

Garden City Plating & Mfg Co GENERAL ELECTRIC COMPANY APPARATUS DEPT Mitchell Mfg Co

Swivelier Co Sylvania Electric Products Inc WESTINGHOUSE ELECTRIC CORP

#### FIXTURES & MATERIALS. STORE DISPLAY

JUNE UISPLAT Abact Displays A B C Cabinet Fixture Works Adler-Jones Co Allied Display Materials Inc American Fixture & MTg Company Ames (W B) Company Barnes MTg Co BERGER MFG CO DIV REPUBLIC STEEL CONT SERGES INFE CO DIV REPUBLIC STEEL CORP Trever-Titchener Corp Burter, Carbon Corp Columbus Show Case Co Consouver Show Case Co Commonwealth Plastics Inc Superior Plastics Div Detroit Show Case Co Display Craft FORMICA CO Equipto Dir Aurora Equipment Co Fuller Displays Inc Fuller Displays Inc Fuller Displays Inc Fuller Displays Co Garada City Plating & Mfg Company Garrison-Wagner Frinting Co Grand Rapide Store Equipment Co Hampdon Mfg Co Inc Heidler (W C) & Co Hirsch (8 A) Mfg Co Interfork Metal Units Inc Johnston, Glass Co Interiork Metai Units Int Johnston Glass Co. Ken-Ko-Bil Corp Knape & Vogt Mir Co. Londs-BetL LUMBER CO. Lyon Metal Products Co. May-Bilt Inc. Metal Decorating & Mir Co. National Sawdust Co. Quesnel Displays Readon Co. RED EVIL T66LS Reverse (Hurum E) Co. Renfector Hardware Corp. Renfor Landware Corp. Renfor Landware Corp. Reflector Hardware Corp Renco Ruslander & Sons Ine Scheuer Creations Ine Schwartz Showell Corp Simplex Store Equipment Ine Sitha Sprine Euripment Ine Sitha Sprine Euripment Amociates Ine Stanford Wood Products Co Stomegand (W L) & Amociates Ine Store Kraft Mfg Co Store Kraft Mfg Co Superior Plastics Dir Commonwealth Plastics Inc Superior Flastics Dir Comm Inc Technical Glass Co Timberstone Decotative Co Universal Equipment Co Waddell Company Inc Watner Mig Co Watren (J D) Mfg Co

#### **FLAGSTONES**

Evergreen Slate Co Ine Landscape Slate & Roofing Co Ine Tennessee Stone Company Inc

#### FLANGES, FLUE

Adams Co Columbia Pipe Co Evans Pipe Co Kees (F D) Mfg Co

FLASHING, ALUMINUM

Central Products Co New Holland Metais Co NICHOLS WIRE & ALUMINUM CO REYMOLDS METALS CO BUILDING PRODS DIV

#### FLASHING, COPPER

nerican Brass Co Angier Corp CECO STEEL PRODUCTS CORP Central Products Conv Central Products Co CHASE BRASS & COPPER CO Hussey (C G) Co INLARD STEEL PRODUCTS CO Revere Copper & Brass Co SISALKRAFT CO Wasco Flashing Co

## FLASHING, METAL, GALVANIZED

Allen Steel Products AMERICAN STEEL & WIRE CO BERGER MFG DIV REPUBLIC STEEL CORP CECO STEEL PRODUCTS COMP Central Products Co CECO STEEL PRODUCTS Central Products Co Cheney Industries Continental Steel Corp Edwards Mfg Co FLINTKOTE CO INC Gary-Pioneer Steel Corp Gary-Pioneer Ste Illinois Zinc Co

INLAND STEEL PRODUCTS CO Lafrome Steel Roofing & Corrugating Co Metal Tile Products Inc Mid-Staten Steel & Wire Co Northwest Metal Products Inc Prom Supply & Metal Corp REPUBLIC STEEL COMP ST PAUL CORRUGATING CO Sealcon Products Inc UNITED STATES STEEL CO Wheeling Corrugating Co

#### FLASHING, PAPER TREATED

Angier Corporation BARRETT DIV ALLIED CHEMICAL & DYE CORP CAREY (PHILIP) MFG CO JOHNS-MANVILLE CORP Lehon Co PROTECTIVE PAPERS ING RICHKRAFT CO RUBERGID CO SISALKRAFT CO

#### FLOATS, CONCRETE

VIRRATING SYNTRON CO.

FLOORING, BLOCK BRADLEY LUMBER CO OF ARK BRUCE (E L) CO Cincinnati Floor Co CONNOR LUMBER AND LAND CO Cromar Co Evans Hardwood Flooring Co FAIR (0 L) LBR CO Farrin (M B) Lhr Co GEORGIA-PACIFIC FLYW00D CO Harris Mfg Co HIGGINS INC HIGGINS INC Holt Hardwood Co Hurtshoro Oak Flooring Co Ine Memphis Hardwood Flooring Co Miller Bron Co Inc Nicker Bros Inc North Branch Flooring Co Paston (Frank) Lin Co Bobhins Flooring Co Stuart Lumber Corp Virginia Oak Flooring Co

#### FLOORING, CORK

ARMSTRONG CORK CO Cork Insulation Co Inc Dodge Cork Co Inc KENTILE INC

#### FLOORING, FIR

Giustina Rores Lumber Co Hines (Edward) Lumber Co Johnson (C D) Lumber Com LOMG-BELL LUMBER CO Oregon-American Lumber Corp Robinson Mfg Co Robinson Mfg Co Robinson Plywood & Timber Co

#### FLOORING, HARDWOOD, BEECH

Anderson-Tully Co Arkansas Oak Flooring Co Atlanta Oak Flooring Co Allints Oak Flooring Co BRADLEY LUMBER CO OF ARK BRICE (E L) CO Central Oak Products Co Clarks Councy Lumber Mills Coloni (F C) & Co Cotton & Hanlon Cook (F C) & Co Cotton & Hanlon CROSSET LUMBER CO Emportum Forestry Co FAIR (D L) LUMBER CO Fortin (M B) Lumber Co Fordige-Crossett Lumber Co Fordige-Crossett Lumber Co Frost Hardwood Flooring Inc Frost Hardwood Flooring Inc Frost Lumber Industries Inc GEORGIA-PACIFIC PLYMOD CO Frost Lumber Industries Inc GEORGIA-PACIFIC PLYWOOD CO Hartis Mfg Co Holt Hardwood Co Kenova Hardwood Flooring Co Leathers (A H) Mfg Co LONG-BELL LUMBER CO Marsh Lumber Co LUBL-BELL LUBER OF Marsh Lumber Co McMinnetille Mfg Co Meadow River Lumber Co Memphis Hardwood Flooring Co Miller Brothers Co Miller Brothers Co Mohile River Saw Mill Co Montercy Hardwood Flooring Co Mohile River Saw Mill Co Monterey Hardwood Flooring Mower Lumber Co Nickey Brothers Ine Owen (B C) Co Partell Lumber Co Partell Lumber Co Patton (Frank) Lumber Co Robbins Flooring Co Boblins Flooring Co Southern Lumber (For Stuart Lumber Cop Texoak Flooring Co

Manufacturers' Names and Addresses Start on Page D-61 **Manufacturers' Brand Name Identifications Start on Page D-52** 

Tibbals Flooring Co Virginia Gak Flooring Co Webster (H E) Lumber Co Wells J W) Lumber Co Williams & Voris Lumber Co Wood-Mosale Co Inc Yawkey-Bissell Lumber Corp

#### FLOORING, HARDWOOD, RIRCH

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Atlanta Oak Flooring Co ATLAS PLYWOOD CORP ATLAS PLYWOOD COMP Bahcock Lumber Co Clarke County Lumber Mills CONNOR LUMBER & LAND CO Cotton & Hanlon Emporium Forestry Co Emporise Torestry Co Egencia-Latfic PLYWOOD & LUMBER GEORGIA-JACIFIC PLYWOOD & LUMBER GEORGIA-JACIFIC PLYW00D & CO Holt Hardwood Co Miller Brothers Co Miller Brothers Co Mower Lumber Co Nickey Brothers Ine Paston (Frank) Lumber Co Phillips-Rhyne Lumber Co Phillips-Rhyne Lumber Co Bobbins Floring Co Virginia Oak Flooring Co Wella (J W) Lumber Co Wood-Mosale Company Ine

#### FLOORING, HARDWOOD, FIBER

Roe Wood Flooring Inc.

FLOORING, HARDWOOD MAPLE

MAPLE Atlanta Oak Flooring Co Barger (P M) Lumber Co Barger (P M) Lumber Co Burger (E L) CO Carr Lumber Co Contral Oak Products Co Clarke County Lumber Mills Colonial Bardwood Flooring Co Cotwor LUMBER & LAND CO Cotwor & Hanlon Cromar Co Emporium Forestry Co Evans Bardwood Flooring Co Farrin (M B) Co Ferguson (W T) Lumber Co GEOBGLA-PACIFIC FLYWOOD CO Harris MIC Co Ferguson (W T) Lumber Co GEORGIA-PACIFIC PLW09D CO Harris Mfg Co Hines (Edward) Lumber Co Holt Hardwood Co Lightsey Brothers Marsh Lumber Co McMinnville Mfg Co McMinnville Mfg Co McMer Lumber Co Miller Brothers Inc Montery Hardwood Flooring Co Mostery Hardwood Flooring Co Mostery Hardwood Flooring Co Mower (R C) Co Paston (Frank) Lumber Co Paston (Frank) Lumber Co Failillip-Rityme Lumber Co Flillip-Rityme Lumber Co Flillip-Rityme Lumber Co Flillip-Rityme Lumber Co Flillip-Rityme Co Hower (R C) Co Faston (Frank) Lumber Co Start Lumber Cor Fishale Flooring Co Function A Flooring Co Weist (J W) Lumber Co Weils (J W) Lumber Co Wood-Mossie Co Inc

#### FLOORING, HARDWOOD OAK

UAR Anderson-Tully Co Arianass Oak Flooring Co Atlanta Oak Flooring Co Atlante Lumber Co Bartes Lumber Co Bartes Lumber Cor Boydon Mfg Co BRADLEY LUMBER CO OF ARK BRUCE (E L) CO Caromiss Lumber Co BRADLEY LUMBER CO OF ANK BRUCE (E L) CO Caronito Stanler Co Caronito Stanler Co Caronito Co Renducts Co Caronito Co Renducts Co Charles Conuty Lumber Mills Contal Cost Plooring Co Convert LUMBER Co Convert LUMBER CO Cook (F C) & Co Cotton & Hanlon Cromar Co RossEVT LUMBER CO De Soto Hardwood Flooring Co Dierts Lumber & Coal Co Emportum Forestry Ce Evana Hardwood Flooring Co False Co L) LUMBER CO

Farrin (M B) Lumber Co Ferguson (W T) Lumber Co Fordyce-Crossett Lumber Co Frost Lapher Inflastics Inc Graybeal (C E) & Sons Greene Lumber Co Harrie NS (C E) & Sons Greene Lumber Co Harrie NS (C) Harrie Corp Lancaster Corp Lancaster Corp Lancaster Corp Lancham Hardwood Flooring Co Lethers (C) Hord - BELL LUMBER CO Lancaster Corp Lanham Endveod Flooring Co Leathers (A H) Mig Co Lighters Forthers LONG-FELL LUMER CO Meth. Lighters Forthers LONG-FELL LUMER CO Meth. Lighter Forthers Meth. Lighter Forthers Meth. Lighter Forthers Meth. Lighter Forthers Memphis Hardwood Flooring Co Merti Oak Flooring Co Moile River Saw Mill Co Montery Hardwood Flooring Co More Lumber Co Nickey Brothers Inc Nother River Saw Mill Co More Lumber Co Nickey Brothers Inc Noth Branch Flooring Co Owen (R C) Co Grack Cak Flooring Co Mother Saw Mill Co Scherbber (William C) Lumber Co Scottale Wood Products Inc Southers Lumber Co Stawart (E A) Lumber Co Stawart Ca A) Lumber Co Wells (J W) Lumber Co Wells (J W) Lumber Co Wells (J W) Lumber Co Wood-Mosaic Co Inc

#### FLOORING, HARDWOOD PECAN

Anderson-Tully Co Arkanasa Oak Flooring Co BRADLEY LUMBER CO OF ARK BRUCE (E L) CO Clarke County Lumber Mills FAIR (D L) LBR CO Fordyce-Crossett Lumber Co Clarke County Lamber Mills FARE (D. ) LBE CO Fordyce-Crossett Lamber Co Frost Lamber Industries Inc GEOBGIA-FACIFIC PLYWOOD CO Hallett Mig Coe Co Inductal LEE CO Medow River Lumber Co Memphis Hardwood Flooring Co Miller & Co Inc Mobile River Saw Mill Co Nickey Brothers Inc Owen (R C) Co Fililipa Bingse Lamber Co Southern Lumber Co Texoak Flooring Co Twin City Hardwood Lumber Co

#### FLOORING, HARDWOOD, **PRE-FINISHED**

BRADLEY LUMBER CO OF ARK BRUCE (E L) CO Cincinnati Floor Co Cincinnati Floor Co Cromar Co FAIR (D L) LUMBER CO HIGGINS INC Memphis Oak Flooring Co PARKAY INC Southern Lumber Co

#### FLOORING, MARBLE Vermont Marble Co

FLOORING, PARQUETRY Barger (P M) Lumber Co BRADLEY LUMBER CO OF ARK BRUCE (E L) CO CONNOR LUMBER & LAND CO Cromar Co FAIR (D L) LUMBER CO Farrin (M B) Lamber Co GEORGIA-PACIFIC PLYWOOD CO Waris Mig Co Harris Mfg Co HASKELITE MFG CORP HASKELITE Mrs. Neweastle Industries Inc. PARKAY INC Parton (Frank) Lumber Co. Dearson Hardwood Flooring Co. PARANAY INC. Parton (Frank) Lumber Co Person Hardwood Flooring Co Robbins Flooring Co Stuart Lumber Corp Texoak Flooring Co Virginia Oak Flooring Co

FLOORING, PINE Anderson-Tully Ce

APRIL 1953

Babcock Lumber Co Barnes Lumber Corp Barger (P M) Lumber Ce BRADLEY LUMBER CO OF ARK BRUCE (E L) CO Clarke County Lumber Mills Colonial Hardwood Flooring Co Cotton & Hanlon CROSSETT LUMBER CO Dargen Lumber Mg Co Diarks Lumber Mg Co Exchange Sawmills Sales Co Frain (O L) LUMBER CO Fordyec-Crossett Lumber Co Fordyec-Crossett Lumber Co Frost Hardwood Floors Inc Frost Lumber Industries Ine GEORGIA-PACIFIC PLYWOOD CO Green Lumber Co GEORGIA-PACIFIC PLYWOOD C Green Lumber Co Hallett Mfg Co Hurtshorn Oak Flooring Co Ince Kirby Lamber Corp. Lightser Brothers LONC-BELL LUMBER CO Miller & Co Inc Phillips-Rhyne Lumber Co Seatch Lumber Co Southern Lumber Co

#### FLOORING, PLANK

P FLOORING, PLANK Andeson-Tully Co Arkanasa Oak Plooring Co Atlanta Oak Plooring Co Atlanta Oak Plooring Co BADE V Co Contennati Floor Co Cloud Oak Flooring Co Cloud Oak Flooring Co Cotton & Hanion De Soto Hardwood Flooring Co FAIR (D L) LUMBER CO Faris (M B) Lumber Co Frost. Hardwood Flooring Co Frost. Hardwood Flooring Co Frost. Lumber Industries Inc GEORGIA-PACIFIC PLYWOOD CO Harris MR Co CEORGIA-FACIFIC FLYWGOD ( Hartis Mig Co Hoit Hardwood Co LONC-FEL LUMBER CO Marsh Lumber Co Inc McMinoville Mig Co Mendow Eirer Lumber Co Memphis Hardwood Flooring Co Miller Bros Co Inc Nickey Brothers Inc North Branch Flooring Co Owen (B.C. Co North Branch Flooring Co Owen (R C) Co PARKAY INC Paston (Frank) Lumber Co Phillips-Rhyne Lumber Co Rose (D M) & Co Roottdale Wood Products Inc Texnak Flooring Co Virginia Oak Flooring Co Wells (J W) Lumber Co

#### FLOORING, RUBBER

ARMSTRONG CORK CO Flash-Stone Compan Fremont Rubber Co Goodrich (B F) Co Johnson Industries Inc RCA RUBBER CO Robbins Fil Robins Floor Products Roxdale Building Products Corp Servicised Products Corp U 8 Rubber Co

#### FLOORING, STEEL

Armco Drainage & Metal Products Ine Blaw-Knox Div Blaw-Knox Co FENESTRA B"ILDING PRODUCTS Inland Steel Co Inland Steel Co International Steel Co JONES & LAUGMLIN STEEL CORP Mahon (R C) Co UNITED STATES STEEL CO Wheeling Corrugating Co WRIGHT MFG CO

#### FLOORING, SUB-COMPOSITE BARRETT DIV ALLIED CHEMICAL & DYE

#### FLOORING UNDERLAYMENT

ARMSTRONG CORK CO BUILDING MATE-RIALS DIV Genasco Inc CELOTEX CORP CELOTEX CONF Consumers Glue Co FLINTKOTE CO MASONITE CONF WIRACLE ADMESIVES CONF MIRACLE ADMESIVES CONF Pioneer Latex & Chemical Co Ine Flaswood Corpors Ine Selby Battersby & Co Servicised Froducts Corp Sloan-Hlabon Corp Tile-Tex Div Flintkote Co Co

#### FLOOR POLISHERS

AMERICAN FLOOR SURFACING MACHINE CO BLACK & DECKER NFG CO BRADFORD MACHINE TOOL CO BRUCE (E L) CO MALL TOOL CO MALL TOOL CO Milwaukee Electric Tool Corp Pittsburgh Plate Glass CO

#### FLOOR RESURFACERS

Acme Asbestos Covering & Flooring Co Adensite Co American Fluresit Co Inc Anti-Hydro Waterproofing Co Camp Company Ceresit Waterproofing Corp Coddington (ED) Mfg Co oddington (E D) Mfg Co onsumers Glue Co urtis Mfg & Asbestos Co vercrete Corp Evercrete Corp Flash-Stone Company Inc Flaxrock Co Glidden Co Horn (A C) Co Keystone Asphalt Products Co Master Builders Co MIRACLE ADHESIVES CORP Monroe Co Inc MOORE (GOODLOE E) CO HOUSE Control to Control Contr

#### FLOORS & CEILINGS, PRE-CAST, CONCRETE UNIT

Alabama Cement Tile Co Flexicore Co Inc Permacrete Products Corp Price Brothers Co Porete Mfg Co

# FLOOR WAXERS, ELECTRIC

Algoma Mfg Co AMERICAN FLOOR SURFACING MACHINE AMERICAN FLOOR SUBFACING MACH CO Atlas Floor Surfacing Machinery Corp BRUCE (E. L) CO Clarke Sanding Machine Co Fay Floor Machine Co Hild Floor Machine Co Hild Floor Machine Co Hild Floor Soft Son Inc Kent Co Fie Landers Frary & Clark Landers Frary & Clark Landers Frary & Clark Landers Frary & Clark Landers Frary & Clark

#### FLOWER BOXES

AIR CONTROL PRODUCTS INC Arterete Froduets Co FAWSCO MFG DIV FALLS STAMPING & WELDING CO METAL PRODUCTS CORP Poweil Pressed Steel Co Bustic Crafts Co Inc

FLUES, ASBESTOS-CEMENT CAREY (PHILIP) MFG CO JOHNS-MANVILLE CORP

#### FLUES & CHIMNEYS PREFABRICATED

American Vitrified Products Co Chimney Sales Co Condensation Engineering CORP GENERAL PRODUCTS 00 Houston Bior Pipe & Sheet Metal Works MAJESTIC CO Southern MAJESTIC CO Southern States Iron Rooding Co VAN PACKER CORP Williams-Wallace Co

FORMS, SILO Universal Form Clamp Co

# FOUNTAINS, DRINKING

AMERICAN RADIATOR & STANDARD SANI-TARY CORP

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52 ELJER CO Haws Drinking Faucet Co Taylor (Halsey W) Co

#### FRAMES, DOOR & WINDOW, METAL

AETNA STEEL PRODUCTS CORP Aluminum Window Corp American Steel Door Co AMERICAN WELDING & MFG CO America event control to America and the control of KEWANEE MFG CO KEWANEE MFG CO Mesker Brothers Iron Co METAL CRAFTERS National Kalamein Co Ine ORE-DER FRAME CORP PITTSBURGH PLATE GLASS CO Richmond Fireprof Door Co Richarbos-WilcOX MFG CO Southern Wire & Steel Products Co Sterling Windows Ine Truline Developments Truline Developments Truline MTEL CO UNITED STEEL FABRICATORS INC VIRGINIA METAL PRODUCTS CORP V-Seal Corp V-Seal Corp Wenzel Mfg Co Wollaeger Steel Corp

FRAMES, DOOR, WOOD

FRAMES, DOOR, WO American Sanh & Door Co Amoersten CoRP Biles-Coleman Lamber Co Ince BRADLEY LUMERE CO OF ARK Burke Milleoft Co CARR ADARS & COLLIER CO CONSECT LUMBER CO CURTIS COS INC Dear Park Pine Industry Inc Dierks Lumber & Coal Co Farley & Loctscher Mfg Co Fordree-Crossett Lumber Co General Panel Corp GREGG & SON Hoosier Sash & Door Co Huttig Rash & Door Co Huttig And Co Krystoone, Damber Mile Co nyue-sturping Co Ideal Co Keystone Frame & Mfg Co Kinzua Fine Mills Co Lockwood Wood Praducts LONG-SELL LUMBER CO MALTA MFC CO Marquart Millwork Co Marquart Millwork Co Suiteral Screen Door Co Pacific Mutual Door Co Pacific Mutual Door Co Boach & Musser Mfg Co Boach & Musser Mfg Co Source Lamber & Millwork Co Sinterst Co Silcrest Co Southern Lumber Co Spokane Pine Products Co Walled Lake Door Co Washington Mfg Co WEL-BILT PRODUCTS CO WEYERHAEUSER SALES CO a Flush De

#### FRAMES, METAL FOR STRUCTURAL GLASS

Braseo Mfg Co Dusing & Hunt Inc KAWNEER CO PITTSBURGH PLATE GLASS CO Sterling Windows Inc

#### FRAMES, SINK WELL BRIGGS MEG CO

Decorite Inc National Guard Products Selek (Walter E) & Co Trimedge Inc Werner (R D) Co Youngstown Mfg Inc

#### FRAMES, WINDOW, WOOD

American Sash & Door Co ANDERSEN CORP Biles Color an Lumber Co Inc Biles-Coleman Lumbe Bradley Miller & Co 8ROWN-GRAVES CO Burke Millwork Co Burke Millwork Co Cameron (Wm) & Co Inc CARR ADAMS & COLLIER CO Clay Squipment Corp Cole Mfg Co CURTIS COS INC Farles & Louchon Million er Mfg Co. rley & Loe

Frost Lumber Industries Inc Frost Lumber Industries Inc General Wooderaft Co GREGG & SON INC Hines (Edward) Lumber Co Huttig Mfg Co Huttig Sash & Door Co Hyde-Murphy Co Load Co Ideal Co Ideal Co Keystone Frame & Mfg Co Kinzua Pine Mills Co Lockwood Wood Products LONG-BELL LUMBER CO MALTA MFG CO MATTARY AND CONTROL OF Silerest Co Snedaker (Frank C) & Co Inc Suokane Pine Products Co Spokane Sash & Door Co WEYERWAEUSER SALES CO White Pine Sash Co

#### FRAMING, STEEL

uma Metal Lath Co ican Bridge Co chem Steel Co Rethiehem Steel Co Branco Mig Co Decatur Iron & Steel Co Fries & Son GREAT LAKES STEEL CORP INLAND STEEL PRODUCTS CH International Steel Co JONES & LAUGHLIN STEEL CORP LACLEDE STEEL CO NACOMBOT INC MESSIGN (GEORGE L) STEEL CORP NATIONAL GYPSUM CO PENN METAL CO INC REPUBLIC STEEL CORP Southern Wire & Iron Works STRAN STEEL DIV GREAT LAKES STEEL CORP CORP TENNESSEE COAL IRON & RR CO TRUSCON STEEL CO UNITED STEEL FABRICATORS INC

#### FRONTS, STORE

BINSWANGER & CO Brasco Mfg Co Compo Miracle Products Co Fentron Steel Works Inc Compo Miracle Frontes Co Fentron Steel Works Inc GENERAL BRONZE CORP General Porcelain Enomeling & Mfg Co Ingram-Richardson Mfg Co KAWNEER CO LIBBEY-OWENS FORD GLASS CO LIBSEY-OWERS FORD WARDS OF Notion Inc. Notion Inc. Parker (St Hardware Mig Co. Pennsylvania Wire Glass Co. Pennsylvania Wire Glass Co. Seguret Porcelain Metals Inc. Rohm & Haas Co. Wolverine Porcelain Enameling Co.

#### FUNGICIDES

BARRETT DIV ALLIED CHEMICAL & DYE CORP California Spray-Chemical Corp Central Chemical Corp Dow Chemical Corp Dow Chemical Corp General Chemical Div Allied Chemical & Dye Corp rasselli Chemical Dept Du Pont (E I) de Grassen Grasselli Chemical Dept Du Forn Nemours & Co Inc Hammond Paint & Chemical Co MONSANTO CHEMCICAL CO PITTSBURGH PLATE GLASS CO Rohm & Haas Co Inc SHERWIN-WILLIAMS CO Co

#### FURNACE PIPE & FITTINGS

dger Corrugating Co NLAND STEEL PRODUCTS CO INLAND STEEL PRODUCTS CO Krauser-Boyd Inc La Crosse Steel Booling & Corrugating Co Lyman (II B) MAJESTIG. CO MUELLER (L J) FURNACE CO Northwest Metal Products Inc Penn Supply & Metal Corp Reeves Steel & Mig Co Stoux Steel Co Stoux Steel Co Waterman.-Waterbury Co Wheeling Corrugating Co William.-Waters Co WILLIAMSON HEATER CO

#### FURNACES, CHIMNEY AIRTEMP DIV CHRYSLER CORP

#### FURNACES, COAL AIRTEMP DIV CHRYSLER CORP

American Foundry & Furnace Co AMERICAN RADIATOR & STANDARD SANI-TARY CORP Anchor Div Stratton & Terstegge Co Ine Armstrong Furnace Co Clayton & Lumbert Mfg Co

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Co CRAME COMPANY Dowagiae Steel Furnace ( Excelsior Stove & Mfg Co Henry Furnace Co MESS CO ce Co MESS CO Holland Furnace Co Homer Furnace & Foundry Corp Internal Steel Div Borg-Warner Corp International Heater Co International He Iron Fifeman Co Krauser-Boyd Ind Lennox Furnace ce Co Lendor Furnace Co Locke Stove Co Majestic Co Mueller (L J) Furnace Co Meyer Furnace Co Norge Heat Div Borg-Warner Corp Oilux Co Olsen (C A) Mfg Co Pioneer Co Rybolt Heater Co Thatcher Furnace Co Waterman-Waterbury Co Wayne Home Equipment Co Wheeling Furnace Corp WILLIAMSON HEATER CO

#### FURNACES, CONVERTIBLE, COAL, OIL, OR GAS

& Furnace Co. International Heater Co MEYER FURNACE CO NORMAN PRODUCTS CO WILLIAMSON HEATER CO

### FURNACES, COUNTERFLOW

UNITS DELCO APPLIANCE DIV GENERAL MOTORS CORP EMPIRE STOVE CO HESS CO MESS CO International Heater Co International Oil Burner Co KAUSTINE CO INC MENDER FURNACE CO MEYER FURNACE CO Norman Products Co Richmond Radiator Co Williamson Heater Co

#### FURNACES, FLOOR

AIRTEMP DIV CHRYSLER CORP AMERICAN RADIATOR & STANDARD SANI-TARY CORP TARY CORP Armstrong Furnace Co BRYANT HEATER DIV AFFILIATED GAS EQUIPMENT INC COLEMAN CO INC COLEMAN CO INC COLEMAN CO INC COLEMAN CO INC. CONSIDE VIENT CON-Consume Heater Corp EMPIRE STOVE CO Extante Stove CO Ibis Noma Electric Co Excelsion Stone & Mig Co Excelsion Stone & Mig Co Bolly Mig Corp Constraints di Burner Co Jettronational di Burner Co Jettronational di Burner Co Jettronational di Burner Co Lotter (H C) Burner Co Loteneran Mig Corp Loteneran Mig Corp Loteneran Mig Co Motor Wheel Corp Duo Therm Dir Mong Ce Hart Div BORGe WARNER CO Lourigan MG Co Motor Wheel Corp Dun Therm Die NGRGE HEAT DIV BORG-WARNER CORP NORMAN PRODUCTS Northwest Metal Products Inc Oliux Co Payne Furnace Co Perfection Store Co Pioneer Co Premier Furnace Co Prentiss Wabers Products Co Queen Stove Works Reliance Mfg Co RHEEM MFG CO Rudy Furnace Co Budy Furnace Co Surface Combustion Corp TEMCO INC Tennossee Enamel Mig Co TIMKEN SILENT AUTOMATIC DIV TIM-KEN-DETROIT AXLE CO U S Machine Corp Viking Mig Corp Viking Mig Corp Viking Mig Corp

#### FURNACES, GAS FIRED

AIRTEMP DIV CHRYSLER CORP. American Gas Machine Co AMERICAN RADIATOR & STANDARD SANI-TARY CORP HART CO. Bard Mig Co. Berger Furnace Mig Co. BRYANT HEATER DIV AFFILIATED GAS EQUIPMENT INC. EQUIPMENT INC Century Engineering Corp Clayton & Lambert Mfg Co Cleveland Steel Products Co Toridheet Div ColeMAN CO INC

BIANCO MEG CO

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

Conco Engineering Works Div Conkey (H D) Conco Engineering Works Div Conkey (H D) Ideal Co Co

Constant Rester Corp Constant Rester Corp DELCO APPLIANCE DIVISION GENERAL MOTORS CORP Dowafiac Steel Furnace Co Duo-Therm Div Motor Wheel Corp Empires TOVE CO Exercision Stove & Mig Co GENERAL ELECTRIC CO AIR CONDITION-ING DEPT ING DEFT Heil Company Henderson Furnace & Mfg Co urnace Co Henry Fur NESS CO Hoock & Ackerman Inc Holland Furnace & Foundry Corp International Oil Burner Co Ko-Z-Air Inc Kresky Merce Kresky Mfg Co MAJESTIC CO NORRISON STELL PRODUCTS INC NUELLER (L)) FURNACE CO NUELLER (L)) FURNACE CO NORAGE HEAT DIV BORGE-WARNER CORP NORMAN PRODUCTS CO Parfection Slove Co Direct Co Queen Store Works RHEEM MFG CO Stleut Stoux Oil Burner Corp Steel City Furnace Co Surface Combustion Corp Thatcher Furnace Co Waterman-Waterbury Co Wayne Home Equipment Co Wayne Home Equipment Co WILLIAMSON REATER CO

#### FURNACES, OIL FIRED

Aeroil Products Inc American Foundry & Furnace Co American Gas Machine Co AMERICAN RADIATOR & STANDARD SANI-TARY CORP TARY CORP Armstrong Furnace Co Bard Mfg Co Berger Furnace Mfg Co BRYANT HEATER DIV Affiliated Gas Equipment Century Engineering Corp COLEMAN CO Conce Engineering Corp COLEMAN CO Conce Engineering Works Conkey (H D) Co DELCO APPLIANCE DIV GENERAL MOTORS CORP Delta Heating Corp Dowadae Steel Furnae Co Duo-Therm Div Motor Wheel Corp Evans Products Co Fluid Heat Div Anchor Post Products Inc GENERAL ELECTRIC CO AIR CONDITION-MG OPFT Calibert & Rather Mfg Co Gillen (J L) Co Hart Oil Burner Div Avery Farm Machinery Co Heil Company Herry Purmae Co Henry Furnace Co MESS CO MESS CO Homer Furnace & Foundry Corp International Heater Co International Oil Burner Co International Oil Burner Co Ko-Z-Air Inc Kreaky Mfg Co Kreano Stamm Mfg Co Little (II C) Burner Co MAJESTIC CO MEYER FURNACE CO MORRISON STEEL PRODUCTS INC MUELLER (L J) FRANACE CO Statunal Antol Burner Co NATIONAL AITOH BURNEP CO NORGE MEAT DIV BORG-WARNER CORP Perfection Store Co Petroleum Heat & Power Co Petroleum Heat & Power Co Foncer Co Reliance Mig Co Richmond Rabiator Co Silent Sionx Oil Burner Corp Thatelere Furnace Co Waterman-Waterbury Co Water How Fourier Co Water How Fourier Co Water How Fourier Co York-ShithPley INC

#### FURNACES, SUSPENDED

Cox Mig Co Gox Mig Co Jackson & Church Weyer F UnNACE CO MUELLER (L.) F UNNACE CO NORGE HEAT DIV BORG-WARNER CORP NORMAN PRODUCTS CO Perfection Store Co

#### FURNACES, WALL

EMPIRE STOVE CO Kresky Mfg Co Norman Products Co Northwest Metal Products Inc OHIO FOUNDRY & MFG CO

Royal Heaters Inc TEMCO INC U S Machine Corp FURNITURE, BUILT-IN

# GATES, WROUGHT IRON

Anchor Post Fence Div Anchor Post Products Inc Badger Wire & Iron Works Inc

AMERICAN BUILDER

Adam (Frank) Electric Co All-Steel Equipment Co Inc Arrow Hart & Hageman Elec Co Cole Electric Products Div Federal Electric Cole Electric Products Div Federal Electric Products Co Columbia Metal Box Co Electrical Engineers Equipment Co Federal Electric Products Co GENERAL ELECTRIC CO CONSTRUCTION MATERIALS DEPT CO Leonard Electric Mrg Co Detrechain Products Inc

FUSE BOXES, ELECTRIC

SERVICE

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Porcelain Products Inc WESTINGHOUSE ELECTRIC CORP Wurdack (Wm) Electric Div Federal Elec-tric Prods Co

#### GARBAGE DISPOSERS

AMERICAN CENTRAL DIV AVCO MFG CORP AMERICAN RADIATOR & STANDARD SANITARY CORP APEX ELECTRICAL MFG CO Berger (Thomas W) Inc CROSLEY DIV AVCO MFG CORP GENERAL ELECTRIC CO APPLIANCE & MERCHANDISE DEPT MERCHANDISE DEPT Given MFG Co Hotpoint inc In-Sink-Erator Co Kelvinator Div Nash-Kelvinator

CORP London Furniture Co MULLINS MFG CORP National Rubber Machinery Co Calcinator Div Valley Weiding & Boiler Co WESTINGHOUSE ELECTRIC CORP WIIIIams Oil-O-Matie Div Eureka-Williams Corp

#### GAS, BOTTLED

F GAS, BUILLED American Liquid Gas Corp Bluefame Corp Carbide & Carbon Chemicals Div Union Car-bide & Carbon Corp Delta Tank Mig Co Ine Dri-Gas Corp Harms oil Co Natrogas Inc Opula, Blaugas Co Opula, Blaugas Co Omaha Blaugas Co Fhillips Petroleum Co Protane Corp Shell Oil Co Inc Skelgas Div Skelly Oil Co Standard Oil Co Universal Bottle Gas Co

#### GASKETS, SEWER PIPE

merican Vitrified Products Co RANE COMPANY Brans Pipe Co JOHNS-MANVILLE CORP NATIONAL CLAY PIPE MFRS INC Robinson Clay Product Co Universal Concrete Pipe Co Inc Universal Sewer Pipe Corp Universal Sewer Pipe Zurn (J A) Mfg Co

#### GATES, FARM

AMERICAN STEEL & WIRE CO CECO STEEL PRODUCTS CORP Coburn Mfg Co COLORADO FUEL & IRON CORP Continental Steel Corp CYCLONE FENCE DIV AMERICAN STEEL 4 WIRE CO **CYCLONE FENCE DIV & WIRE CO** Dare Products Inc Franklin Equipment Co General Implement Corp Hicks Gate Co Illinois Wire & Mfg Co Indiana Steel & Wire Co D Indiana Steel & Wire James Mfg Co Johnson Industries Inc KEYSTONE STEEL & WIRE CO Mid-States Steel & Wire Co NICHOLS WIRE & ALUMINUM CO Northwestern Steel & Wire Co Pittsburgh Steel Products Co Purifor Desktor Pittsburgh Products Co Purifoy Products Co REPUBLIC STEEL CORP ROWE MFG CO Sheffield Steel Corp TENNESSEE COAL IRON & RAILROAD CO WICKWIRE SPENCER STEEL DIV COLO-RADO FUEL & IRON CORP

# GATES, FOLDING

CYCLONE FENCE DIV AMERICAN STEEL & WIRE CO Hopewell Mfg Co Meyers (Fred L) Mfg Co Stewart Iron Works Co Inc

COFFMAN (R G) CO INC CYCLONE FENCE DIV AMERICAN STEEL SILASS SETTINGS, & WIRE CO Edwards MIE CO Edwards MIE CO REVENTING STEEL & WIRE CO Brasco MIE CO Locke Mfg Co METAL CRAFTERS Co Inc

 GAUGES, CRAFTSMAN

Atkins (E C) Div Borg Warner Corp
Bache (Semon) & Co
Consolidated Machinery & Supply Co Ltd
Diston (Henry) & Sons Inc
LUFKIN PULE Co Millers Falls Co Starrett (L S) Co Tannewitz Works Union Tool Co

Atkins (E C) Div Borg Warner Corp. Disson (Henry) & Sons Inc -FTI Incorporated Sundvik Saw & Tool Corp. SIMONOS SAW & STEEL CO Terrill (D D) Saw Co

#### GIRDERS, WOOD

LONG-BELL LUMBER CO RILCO LAMINATED PRODUCTS CO Unit Structures Inc WEYERHAEUSER SALES CO

#### GLASS, ARCHITECTURAL & ORNAMENTAL

American Structural Products Co Baches (Semon) & Co Hearlorn Glass Co Hagemann Cos Inc LIBBEY-OWENS-FORD GLASS CO MISSISSIPPI GLASS CO Pennsylvania Wire Glass Co PITTSBURGH PLATE GLASS CO Royal Glass Works Com-Safeter Royal Glass Works Corp Safetee Glass Co Shower Door Co of America Technical Glass Co Inc U S Glass Co U S PLYWOOD CORP

#### GLASS BLOCK

Hagemann Companies Inc INSULUX PRODUCTS DIV OWENS-ILLINOIS GLASS CO KIMBLE GLASS CO Lasting Products Co PITTSBURGH CORNING CORP DIV PITTS-BURGH PLATE GLASS CO

GLASS, COLORED Franklin Glass Corp LIBBEY-OWENS-FORD GLASS CO PITTSEURGH PLATE GLASS CO

GLASS CUTTER'S RULES Barrett (William L) LUFKIN RULE CO PITTSBURGH PLATE GLASS CO

**GLASS CUTTING MACHINES** PITTSBURGH PLATE GLASS CO

#### GLASS DOUBLE PANE

American Window Glass Co LIBBEY-OWENS FORD GLASS CO PITTSBURGH PLATE GLASS CO

### GLASS HOLDER. AUTOMATIC MEASURING

Heller (W C) & Co PITTSBURGH PLATE GLASS CO RED DEVIL TOOLS

#### GLASS, PLATE

Bache (Semon) & Co Franklin Glass Corp Glaziers' Tool Mfg Co Hagemann Cas Inc. LIBBEY-OWENS-FORD GLASS CO PITTSBURGH PLATE GLASS CO

#### GLASS, PLATE, HEAT ABSORBING

LIBBEY-OWENS-FORD GLASS CO MISSISSIPPI GLASS CO Pennsylvania Wire Glass Co PITTSBURGH PLATE GLASS CO

GLASS, PLATE, INSULATING LIBBEY-OWENS-FORD GLASS CO PITTSBURGH PLATE GLASS CO

APRIL 1953

# Brasco Mfg Co PITTSRURGH PLATE CLASS CO

# ▶ GLASS, STRUCTURAL

Babe (Semon) & Co BLUE RIDGE DIV LIBBY-OWENS FORD GLASS CO Erasco Mfg Co Conroy-Prough Glass Co Franklin Glass Cop Hagemann Cos Inc LIBBEY-OWENS-FORD GLASS CO Mississioni Close Co LIBET-OWENS-FOND GLASS C Mississippi Glass Co National Mirror Works Nurre Cos Inc Pennsylvania Wire Glass Co PITTSEURGH PLATE GLASS CO anal Class Works Corr

#### GLASS, SUBSTITUTE

# Ace Window Sereen Co of America Arrey Corp Celanese Corp of America Plastics Div Clark Wire & Supply Co Du Pont (E 1) de Nemours & Co Henschel (C R) Mfg Co Plexolite Sales Co Henschel (C B) 1 Plexolite Sales Co RESOLITE CORP Sol-O-Lite Mfg Co Turner Brothers Warp Brothers

#### GLASS, WINDOW

American Window Glass Co Bache (Semon) & Co Conroy-Prough Glass Co Dearborn Glass Co Fourco Glass Co Hagemann Cos Inc Harding Glass Co LIBBEY-OWENS-FORD GLASS CO Nurre Cos Inc PITTSBURGN PLATE GLASS CO Rock Island Millwork Co Royal Glass Works Corp

#### GLASS, WINDOW, WIRE

Bache (Semon) & Co Blue Ridge Glass Corp Clark-Babbitt Industries Inc Conros-Prough Glass Co Dearborn Glass Co Hagemann Cos Inc Harding Glass Co Horsier Sco Hoosier Sash & Door Co LIBBEY-OWENS-FORD GLASS CO MISSISSIPPI GLASS CO National Mirror Works Nurre Cos Inc Pennsylvania Wire Glass Co PITTSBURGH PLATE GLASS CO Royal Glass Works Corp

#### GLAZIERS' POINTS

P GLAZIERS POINTS Barrett (W L) Co Black Panther Tool Co Fletcher-Terry Co Glaziers' Tool Mig Co Holland Mig Co Markwell Mig Co Ine Maze (W H) Co National Sheet Metal Co PITTSBURGH PLATE GLASS CO RED DEVIL TOOLS York Tack & Nail Works

#### GLAZING COMPOUNDS

Abesto Mfg Corp Armstrong Co Biddle Co Biddle Co Briggs-Maroney Co Inc CALBAR PAINT & VARNISH CO CALBAR PAINT & VARNISH Christy Co Inc Dad & Lad Co Devoe & Raynolds Co Inc Dicks-Pontius Co Donley Brothers Elliott Paint & Varnish Co Doney protoers Elliott Paint & Varnish Co Fort Pitt Chemical Co Fort Pitt Chemical Co Goodrich (B F) Co Harris Ine Horn (A C) Co Kepstone Asphalt Products Co Kepstone Asphalt Products Co Kepstone Asphalt Products Co Lasting Products Co Lowe Brothers MACKLANBURG-DUNCAN CO Mar-Kay Mig Co Min-Rest Mining & Mig Co MorrElL (J W) Co Parker Ira & Sons Co Parker Ira & Sons Co PetCons Parker Co HITSBURGH PLATE GLASS CO Protect Products Co Plastic Products Co Presstite Engineering Co Sonneborn (L) Sons Inc Steelcote Mfg Co STERLING PAINT & VARNISH CO Sullivan Co Tamma Industries Inc Tremco Mfg Co Truscon Laboratories Div Devoe & Raynolds Inc United Gilsonite Laboratories

#### GLAZING, TRANSPARENT PLASTIC

ALSYNITE CO OF AMERICA Arvey Corp Celanese Corp of America Plastics Div Dobeckmum Co Plexolite Corp Rohm & Haas Co Sol-O-Lite Mfg Co Warp Brothers

#### GLUE, CASEIN

Aetna Plywood & Veneer Co American Cyanamid Co Borden Co Chemical Div Consumers Glue Co Davis Plywood Corp Franklin Glue Co Franklin Glue Co Hayes Adhesives Co Hewitt (C B) & Brothers Ine Lacton Glue Mfg Co LePage's Ine Monite Waterproof Glue Co MONSANTO CHEMICAL CO ational Casein Sales aisley Products Inc RESOLITE CORP Stay-Tite Products Co Tamma Industries Inc U S PLYWOOD CORP

#### GLUE, COLD WATER

**PULCE, CULD WATER** Artna Plywood & Veneer Armour & Co Fertilizer Works Div Borden Co Chemical Div Consumers Glue Co Franklin Glue Co Franklin Glue Co Franklin Glue Co Hewitt (C B) & Rothers Ine Lecton Glue Mg Co LePage's Ine Monite Waterproof Glue Co Lel'age's Inc Monite Waterproof Glue Co MONSANTO CHEMICAL CO National Casein Sales Paisley Products, Inc Perkins Glue Co RODDIS PLYWOOD CORP Tamms Industries Inc Thornton (L. M) Mfg Co Inc U S PLYWOOD CORP

#### GLUE, LIQUID

Borden Co Chemical Dis Carters Ink Co Franklin Giue Co International Glue Co LePage's Inc National Adhesives Dis National Starch National Admentes Products Inc PITTSBURGH PLATE GLASS CO Rogers Isinglass & Glue Co Standard Paste & Glue Co Inc Standard Paste & Glue Co Inc

#### I S PLYWOOD CORP GLUE, RESIN

Actna Plymood & Veneer Co American Cyanamid Co Borden Co Chemical Div Catalin Corp of America Daris Plymood Corp DurJont (E L) De Nemours & Co Ine Franklin Gine Co Fuller (H B) Co Hayes Adhesives Co Hewitt (C B) & Brothers Inc LePage's In Milwaukee Plywood to MIRACLE ADHESIVES CORP Monite Waterproof Glue Co MONSANTO CHEMICAL CO National Casein Sales Paisley Products Inc Perkins Glue Co Perkins Glue Co Resinous Products & Chemical Co Ine RODDIS PLYWOOD CORP Rohm & Haas Co Standard Paste & Glue Co Ine U S M-negl Plywoob Inc U S M-negl Plywoob Inc Wellman Products Co

#### GLUE, WATERPROOF

**P GLUE, WAIERFRO** Aetna Plywood & Veneer Co Amorican (Vanamid Co Borden Co Chemical Div Christy Co Inc Consumers Glue Co DuPort (F 1) he Nemours & Franklin Glue Co Hewitt (C B) & Brothers Inc LePage's Inc Minneadt, Mining & Mir Co Nemours & Co Inc. Minnesota Mining & Mfg Co MIRACLE ADHESIVE CORP

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

Nonite Waterproof Glue Co NONSANTO CHEMICAL CO National Caseln Sales Nicholson & Co Parsine Products Inc Perkins Glue Co PLASKON DIV LIBBEY-OWEMS-FORD CLASS CO GLASS CO Resinous Products & Chemical Co Inc RODDIS PLYWOOD CORP Rohm & Hass Co Standard Paste & Glue Co Inc Stay-Tite Products Co Stay-Tite Products Co Technical Supply Co U S Mengel Plywoods Inc U S PLYWOOD CORP

#### **GRATINGS**

Ailen Steel Products CINCINNATI IRON FENCE CO Donley Brothers Co Hendrick Mfg Co Industrial Iron Works Locke Mfg Co Logan Co Locks Mig Co Logan Co Marion Machine Foundry & Supply Co Murray (D J) Mig Co ST PAUL CORRUGATING CO U S GYPSUM Western Foundry Co Wheeling Corrugating Co Zurn (J A) Mig Co

#### GRATINGS, AREAWALL

ARTCRAFT ORNAMENTAL IRON CO BELSON MFG CO Donley Brothers Co Harris Ine Industrial Iron Works MAIESTIC CO Smith (F P) Wire & Iron Works ST PAUL CORRUGATING CO

#### GRILLES, FIREPLACE

RENNETT IRELAND INC. HEATILATOR INC Industrial Iron Works MAJESTIC CO Master Metal Products Co Meyers (Fred) Mfg Co Ohio Stove Co Price Fireplace Co Silent Glow Oil Burner Corp Southern Barbeque-Grill Co SUPERIOR FIREPLACE CO

#### GRILLES, METAL

AIR CONTROL PRODUCTS INC ARTCRAFT ORNAMENTAL IRON CO BELSON MEG CO COLORADO FUEL & INON CORP Cornell Rolling Door Works Decatur Iron & Steel Co Harris Inc Harris Inc Hart & Cooley Mfg Co HEATILATOR INC Hendrick Mfg Co Industrial Iron Works Kentucky Metal Prods Co Krauser-Boyd Inc Lockjoint Wood Products Co Logan Co Inc Logan Co Index CO MACKLANBURG-DUNCAN CO MALESTIC CO Inc Newman Brothers Inc Southers Wire & Iron Works Southers Wire & Iron Works Stewart Iron Works Co Inc Trane Company U S Register Co Weilman Products Co

#### GRILLES, OUTDOOR COOKING

BENNETT-IRELAND INC CHATTANOOGA IMPLEMENT & MFG CO Chail Anouga Influence a Homer Furnace & Foundry Corp INLAND STEEL PRODUCTS CO MAJESTIC CO Master Metal Products Co Price Fireplace Co Silent Glow Oil Burner Corp

#### GRILLES, RADIATOR

AMERICAN RADIATOR & STANDARD SANI-TARY CORP TARY CORP Auer Register Co Braun (J G) Co Columbia Metal Box Co Garden City Plating & Mfg Co Meyers (Fred L) Mfg Co Parker (S) Hardware Mfg Corp U S Register Co Cen STEEL DIV COLORADO FUEL & IRON CORP

GRILLES, SCREEN DOOR AIR CONTROL PRODUCTS INC Allen Steel Products ARTCBAFT ORNAMENTAL IRON CO

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Belikool Co Chamberlain Co of America Inc COFFMAN (R G) CO INC Decatur Iron & Steel Co Dennis (W J) & Co Evercady Co Hawkins Iron Co Hutchingon Co utchinson Co entucky Metal Products Co. Kentucky Metal Froducts Co Logan Co WACKLANBURG-DUMCAN CO WETAL CARFTERS Reyers (Fred L) Mfg Co National Guard Products Inc Ornamental Metal Works Parler (8) Hardware Mfg Co Protex Weatherstrip Mfg Co Bobbins Mfg Co Samece (Wm J) Iron Co

# GRILLES, WINDOW

Aluminum Window Corp Chamberlin Co of America Inc CINCINNATI INON FENCE CO CYCLONE FENCE DIV AMERICAN STEEL & WIRE CO Flyale Event Equipment Mfg Co Logan Co. METAL CRAFTERS Meyers (Fred L) Mfg Co. National Guard Products Inc Newman Brothers Inc Bobbins Mfg Co.

### GRINDERS, BENCH & FLOOR

Albertson & Co Inc ATLAS PRESS CO BLACK A DECKER WG CO BRADFORD MACHINE TOOL CO BRADFORD MACHINE TOOL CO Chambion Blower & Forge Co Chambion Blower & Forge Co Cincinnati Electrical Tool Div LeBlond (R K) Machine Tool Co (K K) Machine foot Co Clizbe Brothers Mfg Co Dichi Mfg Co Div Electrical Div Singer Mfg Co Hanchett Mfg Co INDEPENDENT PNEUMATIC TOOL CO Lippmann Engineering MALL TOOL CO Works MILWAUKEE ELECTRIC TOOL CORP Poly Products Porter-Cable Machine Co Rockwell MFG Co Delta Power Tool Div SKIL CORP Ma Ce Sueed Way Mg Co Standard Electrical Tool Co STANLEY ELECTRIC TOOLS DIV STANLEY WORKS U S Electrical Tool Co Yonnegut Modder Corney Trecker Corp Walker-Turner Div Kearney Trecker Corp Wisconain Abrastie Mg Co

#### GRINDERS, ELECTRIC PORTABLE

BLACK & DECKER NEG CO Chicago Pneumatic Tool Co Chicago Neeel & Mig Co Colloid Eonipment Co Inc Dichi Mig Co Electrical Div Singer Mig Co DREMEL MFG CO to Do Duro Metal Products Co INDEPENDENT PNEUMATIC TOOL CO Lima Electric Motor Co Lima Electric Motor Co MALL TOOL CO Millers Fails Co Milwaukee Electric Tool Corp PORTER-CABLE MACHINE CO Portable Electric Tools Inc SKIL CORP SKIL CORP Speedway Mfg Co STANLEY WORKS SYNTRON CO Electric Tools Co

#### GROOVERS

Atkins (E C) Div Borg Warner Corp Ekstrom Carlson & Co Goldblatt, Tool Ca Muther Brothers Saw Mfg Co Inc MACKLANBURG-DUNCAN CO Mayes Brothers DUNCAN CO Mayes Brothers Tool Mfg Co Wilson Saw Div Media Machine Works Inc

#### GUARDS, AREAWALL

ST PAUL CORRUGATING CO UNITED STEEL FABRICATORS INC.

#### GUARDS, ROOF & SNOW CHASE BRASS & COPPER CO

GUARDS, SAW Atkins (EC) Dir Borg Warner Corp. BOICE CRANE CO Fay (J A) & Egan Co

Huther Brothers Saw Mfg Co Ine Logan Co Inc Oliver Machinery Co Oliver Machinery Co. ROCKWELL MFG CO DELTA POWER TOOL DIV Yates-American Machine Co

#### GUARDS, WHEEL

Adams Co Donley Brothers Co Fiske (J W) Iron Works Hawkins Iron Co Ine Industrial Iron Works Unternetional Steel Co al Iron Works tional Steel Co MAJESTIC CO Mesker Brothers Swett (A L) Iron Works Western Foundry Co Wheeling Corrugating Co

#### GUARDS, WINDOW

Adams Co Air Control Products inc Leigh Building Products Div Artcraft Ornamental Iron Co Badger Wire & Iron Wor's Inc CINCINNATI IRON FENCE CO Clay Englament Con-Cycluber Fence Div AMERICAN STEEL & WIRE CO Edwards Mig Co Grand Rapids Wire Products Co Hopewell Mig Co Kontucky, Michal Products Co Locke Mfg Co LOCKWOOD HARDWARE MFC CO Logan Co MACKLANBURG-DUNCAN CO Mesker Brothers MESKER (GEORGE L) STEEL CORP METAL CRAFTERS Meyers (Fred L) Mfg Co NATIONAL BRASS CO National Guard Products Ney Mfg Co RUSSELL & ERWIN DIV AMERICAN HARD-WARE CORP WAE CORP Slaymaker Lock Co Smith (P P) Wire & Iron Works Southern Wire & Iron Works Standard Bronze Co Starline Ine Stewart Iron Works Co Ine Wheeling Corrugating Co

#### GUMMERS, SAW

Chambien River & Forge Co Chambien River & Forge Co Chiegon Wheel & Mig Co FOLEY MFG CO General Hardware Corp Hanchett Mig Co Macklin Co Mid-West Abrasive Co Norton Co Rogers (Samuel C) & Co Wisconsin Abrasive Mfg Co

#### GUNS, CAULKING & GLAZING

Abesto Mfg Co Biddle Co CALBAR PAINT & VARNISH CO CENTRAL METAL STRIP CO Dennis (W J) & Co Deveo & Raynolds Co Ine Donley Brothers Co Electric Sprayit Co Felton Sibley & Co Inc Ford Roofing Products Co Fort Pitt Chemical Co Gibson-Homans Co Gibson-Homans Co Glaziers' Tool Mfg Co Goldblatt Tool Co arris JOHNS-MANVILLE CORP Lastik Products Co Inc MACKLANBURG-DUNCAN CO National Guard Products Inc PECBRA PAINT CO PITTSBURGH PLATE GLASS CO Plastic Products Co Protex Weatherstrip Mfg Co Robbins Mfg Co Weatherstrip Mfg Co Caulking Co Robbins Mfg Co Seal Rite Caulking Co Stevart-Warner Corp Tamms Industries Ine Tremeo Mfg Co Vital Products Mfg Co Webster (WF) Cement Co Western Reserve Mfg Co

#### **GUNS, PNEUMATIC CONCRETE APPLICATION**

Colorenvie Industries Inc CONSTRUCTION MACHINERY SALES CO Gunite Construction Corp Macleod Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

#### GUTTERS, METAL

Alabama Metal Lath Co American Brass Co Anaconda Sales Co Armen Steel Corn Armco Steel Corp Badger Corputating Co BERGER MFG DIV REPUBLIC STEEL CORP CECO STEEL PRODUCTS CORP CHASE BRASS & COPPER CO Cincinnal Sheet Metal & Moding Co Cincinnati Sheet Metal & Edwards Mfg Co Harrison Steel Cabinet Co Illinois Zine Co INLAND STEEL PRODUCTS CO Klauer Mig Co Krauser-Boyd Inc LaCrosse Steel Koofing & Corrugating Co Lyon Conklin & Co Inc Mid-States Steel & Wire Co New Holland Metals Co MICHOLS WHEE & ALUMINUM CO Northwest Metal Products Inc Peans Supple & Metal Corp Bewere Supple & Metal Corp Bewere Copper & Brass Inc Review Copper & Brass Inc Review Copper & Brass Co BLDG PRODUCTS

DIV ST PAUL CORRUGATING CO Stoux Steel Co Wheeling Corrugating Co Willis Steel Corp

#### GUTTERS, WOOD

Aloha Lumber Co American Lumber & Treating Co Arrow Tank Co Inc Dolbeer & Carpon row Tank Co Inc olheer & Carson Lumber Co incan Fir Gutter Co Inc ordyce-Crossett Lumber Co Fordyce-Crossett Lumber Co Hammond Lumber Co Holmes-Eureka Lumber Co Hulbert (William) Mill Co LONG-BELL LUMBER CO LONG-BELL LUMBER CO Long Fir Gutter Co Muttal Fir Column Co Union Lumber Co Washington Mfg Co Willamette Valley Lumber Co WEYERMAEUSER SALES CO

### ▶ GYPSUM CELOTEX CORP NATIONAL GYPSUM CO U S GYPSUM CO

# HAMMERS, HAND, ALL

TYPES ARROW FASTENER CO. Barcalo Mfg Co BOSTITCH INC BOSTITCH INC Billings & Spencer Co Burgess Fastening Co Capewell Mfg Co Capewell Mfg Co Champion-DeArment Tool Co Cheney : Henry I Hammer Corp David-Maydole Tool Corp Estwing Mfg Co FASTENER CORP Goldblatt Tool & Forging Co FASTENER CORP FASTERER CORP. Topological of Control Contr Proto Tool Co RED DEVIL TOOLS Selek (Walter E) & Co STANLEY TOOLS DIV STANLEY WORKS True Temper Corp Vaughan & Bushnell Mfg Co Vlehek Tool Co

# HAMMERS, MAGNET

#### HAMMERS, PNEUMATIC

Azor Products Azor Products Ingersell-Rand Co WORTHINGTON CORP CONSTRUCTION EQUIPMENT SALES DIV

#### HAMMERS, PORTABLE ELECTRIC

Allied Tools Inc BLACK & DECKER MFG CO Chicago Pneumatic Tool Co Chicago Poetmatic Tool Co Goldblatt Tool Co HomeLite Corp Inoperbort Pneumatic Tool Co Mall Tool Co Millers Falls Co Milwaukee Electric Tool Corp Skil Corp Stanley Electric Tools Div Stanley WORKS SYNTRON CO Van Dorn Electric Tool Co Wodack Electric Tool Corp

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#### HAMPERS, BUILT-IN CLOTHES

National Metal-Art Mfg Co Standard Steel Cabinet Co

#### HANDLES FOR AXE. PICK. SLEDGE. HATCHET

Amos (Charles II) Handle Co Bruner-Ivory Handle Co Buckeye Handle Works Co Cheeseborough (Thos E) Chicago Wood & Plastic Products Cooke (IR ) Mrg Co Disston (Henry) & Sons Inc Deced Henry) & Sons Inc Disston (news) Dowel House Estes (E B) & Sons Inc Communicate Mfg Co Greenslate Mfg Co Hartwell Bros Imperial Handle Mfg Co Madden Handle Co Marion Handle Mills Inc National Aluminum Co Ohlen-Bishop Mfg Co Proto Tool Co South Bend Davel & Mfg Co South Bend Davel & Mfg Co Proto Tool Co South Bend Dowel & Mfg Co Stiles (H A) Co Strock (L W) & Co Swan Handle Corp Syracuse Alloy Metals Corp True Temper Corp Union Fork & Hoe Co Union Hardware Co

#### HANGARS, AIRPLANE

THANGARS, AIRFLAIL Blaw-Knox Ibi Blaw-Knox Co Butler Mfg Co International Skel Co Wesker (feorge L) Steel Corp Rilco Lawinated Products Co SteelCraft MFG Co Timber Structures inc Timber Structures inc Turscon Steel Co Unit Structures Inc.

HANGERS, BATHTUB F HARTSERS, DAINING AMERICAN RADIATOR & STANDARD SANI-TARY CORP KOHLER CO LUCKE (WILLIAM B) INC Tikewall Hanger Co Zum (J A) Mig Co

#### HANGERS, EAVE TROUGH & CONDUCTOR PIPE

Badger Corrugating Co BERGER MFG DIV REPUBLIC STEEL CORP CECO STEEL PRODUCTS CORP CHASE BRASS & COPPER CO Hopson (W C) Co INLAND STEEL PRODUCTS CO Mid-States Steel & Wire Co New Holland Metals Co Obio Corrugating Penn Supply & Metal Corp REVNOLDS METALS CO BUILDING PROD-UCTS DIV UNITED STATES STEEL CO

#### HANGERS, INSULATION

Devices Inc Johns-Manville Corp Miracle Adhesives Corp Moore (Goodloe E) Co

#### HANGERS, JOIST & LUMBER

Adams Co Allen Steel Products Co Cleveland Steel Specialty Co Inc Conver Steel & Wire Co COPYCO STEEL & ENGINEERING CO Firon & Steel Brothers Co Hanger Co onley hmann & Barnard Inc losking Paper & deal Hanger Co anebro Mfg Co Soule Steel Co Supply WAGNER MFG CO

#### HANGERS, METAL LATH

BERGER NEG DIV REPUBLIC STEEL CORP BOSTWICK STEEL LATH CO CECO STEEL PRODUCTS CORP Goldsmith Metal Lath Co INLAND STEEL PRODUCTS CO PENN METAL CO INC TRUSCON STEEL CO U S GYPSUM

AMERICAN BUILDER

HANGERS, PIPE & CONDUIT

Acme Pipe Strap Co Carpenter & Patterson Inc Copperveld Steel Co Diamond Expansion Bolt Co General Fittings Co Hubbard & Co Illinois Malleable Iron Co Metheable Iron Elittings Co Malleable Iron Fittings FAINE COMPANY Signode Steel Strapping Co Victor Specialties Youngstown Mfg Inc

#### HARDBOARD, ASPHALT Mendows (W R) Inc.

#### HARDBOARD, COMPOSITION & FIBROUS, DECORATIVE

Actna Plywood & Veneer Co Armstrong Cork Co Building Mate-Rials Div Builer (B B) MFG CO INC Celotex Corp CLOIEA COM CUMPUS ALLAND CUMPUS COMPANIES INC DANT & MUSSELL PITTER Institution Board Co Formate Co Kimberly-Clark Corp LONG BELL LUMBER CO LUNG BELL LUMBER OF Lustrewood Process Co MASONITE CORP Meadows (W R) Inc Mussman & Shafer Inc NATIONAL GYPSUM CO Gregon Lumber Co Pacific Veneer & Piywood Corp Plaswood Corp Protective Papers Inc Rock Island Millwork Co RODDIS PLYWOOD CORP Simpson Logging Co U S GYPSUM CO U S PLYWOOD CORP WOODALL INDUSTRIES INC

### HARDBOARD, EMBOSSED CELOTEX CORP DANT & RUSSELL MASONITE CORP

#### HARDWARE, AWNING

Astrup Co Awning Hardware Co COBBIN (P & F) DIV AMERICAN WARD-WARE COBP Fanner Mfg Co Goss (J C) Co PITTSBURGH PLATE GLASS CO Reading Hardware Corp SANGENT & CO

#### HARDWARE, AWNING WIN-DOW

CORBIN (P & F) DIV AMERICAN HARD-WARE CORP GATE CITY SASH & DOOR CO Larson (Chas 0) Co LUDMAN CORP Reading Hardware Co LUDMAN CORP Reading Hardware Corp Slaymaker Lock Co STERLING NANDWARE MFG CO Super Vent Co Whitney (Vincent) Co

#### HARDWARE, BARN

HARDWARE, BARN ALLITA-POUTY INC CORBIN (C & F) DIV AMERICAN NARD-WARE CORP FANTZ M'R SONS HINGE MFG CO HIGHER (C ) N M'R CO Ideal Brask Works Inc James M'R CO Lawrence Bros Louden Machinery Co McKinner M'R CO Myers (F E) & Brother Co MXTIONAL MFG CO NIXALITE CO OF AMERICA RICHARDS-WILCOX MFG CO STABLEY WORKS Starline Inc WAGNER MFG CO

#### HARDWARE, CABINET

Acom Mfg Co ADAMS-RITE MFG CO Ajax Hardware Mfg Cor Alax Hardware Wig Corp American Brass Goods Co AMERICAN CABINET NARDWARE CORP Assin & Cody Inc Casement Hardware Co Chinego Spring Hinge Co Chicago Spring Hinge Co Cipco Corp Cipco Corp Cleveland Lock Works Clinton Lock Co Consolidated Iron-Steel Mfg Co

CORBIN (P & F) DIV AMERICAN HARD-WARE CORP CURTIS COMPANIES INC DEXTER LOCK CO DEXTER LOCK CO Engineered Products Co Extension Drawer Support Co Finale Equipment Mig Co FRANZ MFG CO Garden City Plating & Mig Co Garden City Plating & Mig Co General Steel Warebouse Co Geneso Tool Div Gits Molding Corp Grant Rapids Hardware Co GRANT PULLEY & HARDWARE CO GREEG & SON Griffin Mig Co CREEC & SON Griffin Mig Co HAGER (C) & SONS HINGE MFG CO Harris Inc Harris Inc Heller (W C) & Co Hollymade Hardware Mig Co Ideal Brass Works Inc INDEFENDENT LOCK CO Ives (H B) Go Kees (F D) Mig Co Kees (F D) Mig Co Kuape & Vogt Mig Co Kuape & Sole Mig Co KwiKSET SALES & SERVICE CO KWIKSET SALES & SERVICE CO KWIKSET SÄLES & SERVICE CO Lawrene Rrothers LOCKWOOD HARDWARE MFG CO MCNINNERG-DUNCACO MCNINNEY MFG CO NATIONAL BRASS CO NATIONAL BRASS CO NATIONAL LOCK CO NATIONAL LOCK CO NATIONAL MFG CO NATIONAL MFG CO Ney Mg Cock Co Div Segal Lock & Hard-ware Co Olep Products Inc Parker (%) Hardware Mfg Co Parker (%) Hardware Mfg Co Penn Hardware Co Petto Industries Penn hardware Co Petko Industrics Phoenix Lock Co Reading Hardware Corp Reese Padlock Co RUSSELL & ERWIN DIV AMERICAN HARD-WARE CORP WARE CORP Safe Padlock & Hardware Co SAGER-BARROWS DIV YALE & TOWNE Note radiock & Hardware Co SAGEH-BARRWS DIV YALE 4 MFG CO Selck (Walter E) & Co Selck (Walter E) & Co Silcon Bardware Mfg Co Silcon Bardware Mfg Co Silcon Bardware Mfg Co Standard Bronze Co STANLEY WORKS STELING WARWARE MFG CO Technical Gass Co Inc Vincar Sales Co Weber-Knapp Co YALE & TOWNE MFG CO

#### HARDWARE, CASEMENT WINDOW

American Brass Goods Co AMERICAN CABINET HARDWARE CORP Arrow Lock Corp Bayley (William) Co Casement Hardware C Characteria Hardware Co Conseilon Hardware Co WARE Conducts The Confit Sited Products The Confit Sited Products Inc Cust's ComPanies Inc Cust's ComPanies Inc FENESTRA BUILDING PRODUCTS Finals Faultment Mig Co Fivale Equipment Mfg Co FRANTZ MFG CO GETTY (N 5) & CO INC Griffin Mfg Co HAGER (C) & SONS HINGE MFG CO Lical Brass Works Ideal Brass Works INDEFENDENT LOCA CO Ives (H B) Co Kees (F D) Mfg Co Lawrence Brothers LOCKWOOD HARDWARE MFG CO McKinney Mfg Co NATIONAL BRASS CO Peabody Co Inc Penn Hardware Co Phenix Mfg Co Inc Reading Hardware Corp RICHARDS-WILCOX MFG CO RISSON (DSCAT C) CO RUSSELL & ERWIN DIV AMERICAN NARD-WARE CORP SAFE Padlock & Hardware Co SAGER-BARROWS DIV YALE & TOWNE MFG CO SARGENT & CO SARGENT & CO Slaymaker Lock Co STANLEY WORKS STERLING HARDWARE MFG CO YALE & TOWNE MFG CO

#### HARDWARE, CLOTHES CLOSET

Acme Metal Goods Mfg Co Ajax Hardware Mfg Corp

Ameriline Ine Arrow Lock Corp Attinson Mig Co Autoyre Co Bommer Spring Hinge Co Ine Champion Hardware Co Chiesgo Curtain Structher Co Chiesgo Curtain Structher Co Collegi Di Co Corrigi Di Co Corrigi Co Corrigi Co Corrigi Co Corrigi Co Con Corport WAR COUP DU AMERICAN HAND WAR COUP DUDIN SINT FANSCO NOT FALLS STAMPING & WELDING CO FWARE COUPFILLS STAMPING & FWARE COUPERING A ME CO FRANT PULLEY & HANDWARE CO GETTY (N S) & CO INC GETTY (N S) & CO INC GETTY (IN S) & CO INC GETTY (IN S) & CO INC HANDWARE CO HAGEE (C) & SONS HINGE MFG CO HAGEE (C) & SONS HINGE MFG CO HACER (C) 4 5008 HINGE Harlo Products Corp Handy Thinas Mfg Co Illinois Porcelain Raamel Co Ives (H B) Co Judd (H L) Co Ince K D K Upset Forging Co Ken-Ro-Bil Co Kanas (Walter S) Co Larson (Charles 0) Co Larson (Charles 0) Co Araus (Walter 5) Co Lawrence Brothers Lockwood MAROWARE MFG CO Marrel Rack Mfg Co Modern Plastic Co Modern Plastic Co Notiton Ladder Mfg Co NATIONAL MFG CO NATIONAL MFG CO Parker (S) Hardware Mfg Corp Penbody Co Inc Pen Hardware Co Reading Hardware Corp Recose Padlock Co Bop-Lee Products Co Penn Haurare Corp Reading Hardware Corp Reserve Padlock Co RuSSELL & INWIN DIV AMERICAN MARD-RUSSELL & INWIN DIV AMERICAN MARD-SACER-RARROWS DIV YALE & TOWNE MEC CO SARCENT & CO Ribelby Spring Hinge Co Stelliman Hardware Co SANGLENT & CU Shelby Spring Hinge Co Skillman Hardware Co Slaymaker Lock Co Southern Galvanizing Co Standard Bronze Co STANLEY WORKS Stevenson Mrg Co Universal Steel Equipment Corp Vincer Sales Co Vimcar Sales Co WASHINGTON STEEL PRODUCTS INC VALE & TOWNE MEG CO HARDWARE, DOOR

P HARDWARE, DOOR Ajax Hardware Mfg Corp American Sliding Door Hardware Corp Champion Hardware Co COBBIN (P F) DIV AMERICAN HARD-WARE CORP DEXTER LOCK CO FRANTZ MFG CO LOCKWOOD HARDWARE MFG CO MATIONAL MFG CO Penn Hardware Co SAGER-BARROWS DIV YALE & TOWNE MFG CO SAGEN AC CO Skillman Hardware Co Skillman Hardware Co Skillman Hardware Co Weis (Henry) Mfg Co Wickwire Spencer Steel Div Colorado Fuel & Iron Corp

#### HARDWARE, DOOR ACCES-SORY

Acorn Mfg Co ADAMS RITE NFG CO Ajax Hardware Mfg Corp ALLITH-PROUTY INC ALLIMETAL WEATHERSTRIP CO American Brass Goods Co AMERICAN CABINET HARDWARE CORP AMERICAN CARINET HARDWARE CORP Arrow Lock Corp Bridgeport Chain & Mfg Co Busch (A G) Co Inc Champion Hardware Co CHABSE BRASS & COPPER CO CHAST CORP Classic (J) & Sona Classic (J) & Sona Classic (J) & Sona Colonial Brass Mfg Co Colonial Colonial Colonia Colonia Co WARE CONF Decortie In: Dorbin Metal Strip Mfg Co Engineered Products Co Erco Mfg Co Fluke (J W) Iron Works Fluke Engineert Mfg Co FWARTZ MFG CO General Steel Warehouse Co Genseo Tool Dir General Steel Warehouse Co Genseo Tool Dir General Steel Warehouse Co Genac Gits Molding Corp Grand Rapids Wire Products Co Grand Specialties Co GRANT PULLEY & MARDWARE CO Griffin Mfg Co HAGER (C) & SONS HINGE MFG CO Harloe Products Harris Inc

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

Harvard Lock Co Hollymade Hardware Mfg Co Honeycutt Mfg Co Ideal Brass Works Ives (H B) Co Kant Slam Boor Check Co Kees (F D) Mfg Co Kees (F D) Mfg Co KWIKSET SALES & SERVICE CO LABORATORY EQUIPMENT CORP LOCKWOOD HARDWARE MFG CO LOGAD (C Inc MACKLANEURG-DURCAN CO MARION TOOL COT MACRIANEURICO Marion Tool Corp McKinney Mfg Co MESKER (GEORGE L) STEEL CORP Milwaukee Stamping Co Modern Plastic Co Mocarch Metal Weatherstrip Co Allocatel Micrathe Micratheratrip Co MATIONAL BRASS CO NATIONAL BRASS CO NATIONAL LECK CO NATIONAL LECK CO NATIONAL CC New Microson New Microson New Microson New Microson New Microson Noton Door Closer Co Noton Door Closer Co Noton Lock Co Div Segal Lock & Hardware Co Co Pacific Plastic & Mfg Co Parker (S) Hardware Mfg Co Parlyn Ltd Peabody Co Inc Penn Hardware Co Petko Industries Phenix Mfg Co Inc Phoenis Hardware Mfg Co PITTSBURGH PLATE GLASS CO Reading Hardware Corp Reser Fadlock Co Richards-Wilcox MFG CO Ritchards-Wilcox MFG CO Russell & Erwin Div American Mard-ware Corp Safe Padlock & Hardware Co Safe Padlock & Hardware Co SACER-BARROWS DIV YALE MF6 CO SARGENT & CO SCHLAGE LOCK CO Segal Lock & Hardware Co Behory Stop-A-Draft Co Sharon Hardware Mfg Co Shelby Metal Products Co Shelby Spring Hinge Co Etillmang Hardware Mfg Co SKillman Hardware Mg Co Silaynaket Lock Co Smith (F P) Wire & Iron Works Southern Wire & Iron Works Southern Wire & Iron Works Shandard Bronze Co Standard Mirror Co Standard Mirror Co Stander Wirks Standare Mirror Co STARLET WORKS Starline Inc STERLING HARDWARE NFG CO Sultan Bros Superior Accessory Co Superior Plastics Div Commonwealth Plastics Inc Technical Glass Thermal Co Trego Industries Beass Wo hnical Glass Co Trener Brass Works WAGNER MFG CO WASHINGTON STEEL PRODUCTS INC Waterloo Sales Co Wellman Products Co Westwood Mfg Co Woodmark Industries Inc YALE & TOWNE MFG CO

#### HARDWARE, DRAWER, **KNOBS & PULLS**

ADAMS-RITE MEG CO Ajax Hardware Mfg Corp AMERICAN CABINET HARDWARE CORP Arrow Lock Corp BENDIX MFG CO Engineered Products Co Erco Mig Co Fiwale Equipment Mig Co FRANTZ MFG CO Copacit C General Steel Warehouse Co Genseo Tool Div GRANT PULLEY & HARDWARE CO HAGER (C) & SONS HINGE MFG CO Harloc Products Corp Hollymade Hardware Mfg Co Ives (H B) Co Kpape & Co Knape & Vogt Mfg Co KWIKSET SALES & SERVICE CO LOCKWOOD HARDWARE MFG CO McDonald Mfg Co McKinney Mfg Co Modern Plant Co NATIONAL BRASS CO National Hardware Co NATIONAL LOCK CO NATIONAL MFG CO AATIUNAL MFG CO Norwalk Lock Co Div Segal Lock & Hardware Co Pacific Plastic & Mfg Co Parker (8) Hardware Mfg Corp Peabody Co Inc Penn Hardware Co Petho Industries Reading Hardware Corp Republic Hardware & Distributing Corp HUSSEL & REWN DIV AMERICAN HARD-Nate Pailoré & Hardware Co SAGER-BARROWS DIV YALE & TOWNE MFG CO SAGER-BARROWS DIV YALE & TOWNE MFG CO SCHLAGE LOCK CO Senal Lock & Hardware Co Schlage Lock CO Standard Radware Co Slapmaker Lack Co Standard Radware Co Slapmaker Lack Co Stander Bardware Co Stanter Works Superior Flaste Div Commonwealth Plastics Incenting Gass Co Inc Turner Brass Works E S Glass Co Westwood Mfg Co

HARDWARE, GARAGE DOOR ALLITH-PROUTY INC BARBER-COLMAN CO CALDER MFG CO CALDER MFG CO Champion Hardware Co COLORADO FUEL & IRON CORP WICKWIRE SPENCER STEEL DIV SPERCER STELLE COMMANDER DOOT INC CORBIN (P & F) DIV AMERICAN HARD-WARE CORP CRANF ROL DOOR CO Finale Equipment Mfg Co RANTZ MFG CO RANTZ MFG CO Jameral Steel Warehouse Co Inc Genseo Tool HAGER (C) & SONS HINGE MEG CO amon & Sessions ( aron (Chas 0) Co awrence Brothers uden Machinery Co y Mfg NATIONAL MEG CO OVERHEAD DOOR CORP arker (S) Hardware Mfg Corp RICHARDS-WILCOX MFG CO ST Louis Seren & Bolt Co SAGER-BARROWS DIV YALE & TOWNE SAGER-BO MFG CO SARGENT & CO Shaton Hardwate Mfg Co Shaton Hardwate Mfg Co STANLEY WORKS GARAGE HARDWARE 1..... Sterling Bolt Co STERLING HARDWARE MFG CO WAGNER MFG CO

#### HARDWARE, GARAGE, FOLDING DOOR

Basch (A G) & Co Inc Clusten Lock Co ColorAdo E Co ColorAdo E Co SFRUCER STEEL DIV Earlern Alleshie Iron Co Eberhard Mfg Co FRANTZ MFG CO HAGER (C) & SONS HINGE MFG CO NATIONAL MFG CO NATIONAL MFG CO Penhody Co Penhody Co Penhody Co Penhody Co Penhody Co

#### HARDWARE, GARAGE, UPWARD-ACTING

UTWARLE-AL HITS ALLITH-FROUTY INC Arrosemith Tool & Die Co Bester Bit Door Co Caber Mit Door Co Class Equipment Cop Colorado Fuel & IRON CORP WICKWIRE SPENCER STEEL DIV CURTIS COMPANIES INC Finale Economent Mit Co Frantz Wire Co NAGER (C) & SONS HINGE MFG CO Holmon Mit Co Luckwood HARDware MFG CO LOCKWOOD HARDware MFG CO LOCKWOOD HARDware MFG CO LOCKWOOD HARDware MFG CO STANLEY WORKS Starting Ince Tavart Co Ltd Vinter Sales Co WAGNER MFG CO

#### HARDWARE, LADDER

Ajax Building Bracket Co ALLITH-PROUTY INC Balreock (W W) Co Caster Mold & Machine Co Davenpart Ladder Co Heider Mig Co Lutson Ladder Co Michigan Ladder Co Newark Ladder & Bracket Co Rich Lodder & Mig Co STANLEY WORKS

#### HARDWARE, SCREEN & STORM SASH

Acorn Mfg Co Air-Tite Window Stay Co Ajax Hardware Mfg Corp MERICAN CABINET HARDWARE CORP Barber Mfg Co Inc Busch (A G) & Co Inc Casement Hardware Co CECO STEEL PRODUCTS CORP Champion Hardware Co Chicago Spring Hinge Co Cinton Lock Co Consolidated Iron-Steel Mfg Co CORBIN (C & F) DIV AMERICAN MARD-WARE CORP CURTIS COMPANIES INC Dennis (W J) & Co Functioned Demonts Co Engineered Products Co FRANTZ MFG CO Griffin Mfg Co HAGER (C) & SONS HINGE MFG CO Handy Things Mfg Co Handy Things Mfg Co Ideal Brass Works Kant-Slam Door Check Co Kees (F D) Mfg Co Knape & Vogt Mfg Co KWIKSET SALES & SERVICE CO LOCKWOOD HARDWARE MFG CO MACKLANBURG-DUNCAN CO MCKINDEY MIG CO NATIONAL BRASS CO NATIONAL LOCK CO NATIONAL MFG CO Norwalk Lock Co Div Segal Lock & Hardware Co Oley Products Inc Parker (S) Hardware Mfg Corp Penn Hardware Co Petko Industries Phenix Mfg Co Inc REYNOLDS METALS CO BUILDING PROD-UCTS DIV UCTS DIV RUSSELL & ERWIN DIV AMERICAN HARD-WARE CORP Safe Padlock & Hurdware Co Safer-Barrows Div Yale & Towne MFG CO Sharon Hardware Mfg Co Shelby Spring Hinge Co STANLEY WORKS STERLING HARDWARE MFG CO WAGNER MFG CO WICKWIRE SPENCER STEEL DIV COLORADO FUEL & IRON CORP Wright Products Inc. VALE & TOWNE MFG CO.

#### HARDWARE, SLIDING DOORS

ACHE APPLIANCE MFG CO Accurate Metal Weather Strip Co Ine ADAMS. ATTE MFG CO AIR CONTROL PRODUCTS INC ALLITH-ROUTY INC ALLITH-ROUTY INC COBEN RESEARCH CONTROL WIRE SPRICER STEEL DIV COLORADO FUEL & IRON CORP COBEN (F & F) DIV AMERICAN HARD-WIRE SPRICER STEEL DIV COLORADO FUEL & IRON CORP CURTIS COMPANIES INC Feather Flate FRANTZ MFG EGO & MERICAN HARD-WIRE SPRICER STEEL DIV COLORADO FUEL & IRON CORP CURTIS COMPANIES INC Feather Flate FRANTZ MFG EGO & MERICAN HARD-MAGE (C) & SONS MINGE MFG CO James Mg Co KENASTRACK CORP KINASTRACK CORP MACKLANEUGC-DUNCAN CO MACKLANEUGC-DUNCAN CO MATIONAL MFG CO NASTRACK CORP NASTRACK CORP

Peabledy Co Inc Pean Hardware Corp Reading Hardware Corp Richardbs-wilcox MFG CO RUSSELL & ERWIN DIV AMERICAN HARD-WARE CORP SAGER-BARROWS DIV YALE & TOWNE MFG CO SARCENT & CO Statute Hardware Mfg Co. STANLEY WORKS Statiline Inc U & Sliding Door Corp Vincar Sales Co WAGNER MFG CO WAGNER MFG CO WAGNER MFG CO WAGNER MFG CO WASHINGTON STEEL PRODUCTS INC WE-SILT PRODUCTS CO Western Products Inc Wickwine SPENCER STEEL DIV COLORADO FUEL & IRON CORP

# HARDWARE, VENETIAN

DELIVER Bad Chain Mfg Co. Bills Venetian Billo Co. Carey-McFill Co. Fiwale Konapment Mfg Co. HUNTER DOUGLAS MFG COMP Lorentzen Hardwar Mfg Cotn REYNOLDS METALS CO. BUILDING PRODS DIV

### HARDWARE, WINDOW

Acorn Mfg Co ADAMS RITE MFG CO Alas Hardware Mfg Cor American Brass Goods Co AMERICAN CABINET HARDWARE CORP A R B Window Sales Co Arrow Lock Corp Austral Sales Corp Casement Hardware Co Champion Hardware Co Champion matchare of Clineto Core Clinton Lock Co Corebin (P & F) DIV AMERICAN HARD-WARE CORP Dennis (W J) & Co Detroit Hardware Mfg Co DEXTER LOCK CO From Mfg Co FENESTRA BUILDING PRODUCTS Flwarz MFG CO GATE CITY SASH & DOOR CO GETTY (N S) & CO INC GRANT PULLEY & MARDWARE CO Griffin Mfg Co HAGER (C) & SONS HINGE MFG CO Ideal Brass Works INDEPENDENT LOCK CO Knape & Vogt Mfg Co KWIKSET SALES & SERVICE CO rles OI Co LOCKWOOD HARDWARE MFG CO MACKLANBURG-DUNCAN CO Nettinger Mit Go NATIONAL BRASS CO NATIONAL BRASS CO NATIONAL LOCK CO NATIONAL MFG CO NORVALL LOCK CO Div Segal Lock & Hardware Co Parter (S) Hardware Co CO Parker (S) Hardware Mfg Corp Parlyn Ltd rariyis Ltd Peabody Co Inc Penn Hardware Co Petko Industries Phenix Mfg Co Inc Reading Hardware Corp Rese Padlach Corp RICHARDS-WILCOX MFG CO RUSSELL & ERWIN DIV AMERICAN HARD-WARE CORP Safe Padlock & Hardware Co SAGER-BARROWS DIV YALE & TOWNE MFG CO SARGENT & CO Shaton Hardware Mfg Co Shelby Metal Products Co Skillman Hardware Co Skillinger Lock to Slaymaker Lock to STANLEY WORKS Steel Window Products Co STERLING HARDWARE MFG CO Sun Metal Products Co Vimear Sales Co VALE & TOWNE MEG CO

#### HASPS, HINGE

ALLITH-PROUTY INC American Hinge Co Champion Hiardware Co CORBIN (P & F) DIV AMERICAN HARD-WARE CORP Fivale Equinoment Mig Co FRANTZ MFG CO General Stevel Wardhouse Co Genseo Teol Div Griffin Mig Co HAGER (C) & SONS HINGE MFG CO Master Lock Co Master Lock Co

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NATIONAL BRASS CO NATIONAL LOCK CO NATIONAL MFC CO Parker (S) Hardware Mfg Co Side Padlock & Hardware Co Sharon Hardware Mfg Co Sharon Hardware Mfg Co Stamuley WORKS WAGNER MFC CO

#### ▶ HATCHETS

Ridgeport Hardware Mfg Corp Collins Company Estwing Mfg Co Goldblatt Tool Co Martwell Mfg Wilcox Co Plumb (Fayette B) Inc STANLEY TOOLS DIV STANLEY WORKS True Tenuper Corp Yunghan & Bushnell Mfg Co . .

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#### HEADS, DADO

American Saw Mill Machinery Co Atkins (E C) Die Borg Warner Corp Consolidated Machinery & Supply Co Disston (Henry) & Sons Inc Master Wodworker Mig Co Ohlen-Bishop Co ROCKWELL MFG CO Toolkraft Corp Western Saw Works

HEARTH, CANTILEVER

#### HEATERS, BATHROOM

Adam (Frink) Electric Co Law & Night Mfg Div Affiliated G.s Equipment Lectrowhope conf EMERSON ELECTRIC MFG CO Galbrath (C C) & Sons LA SALLE PRODUCTS INC MARKEL ELECTRIC PRODUCTS INC MARKEL ELECTRIC PRODUCTS INC MIAMI CABINET DIV CAREY (PHILIP) MFG CO Ohio Store Co Perfress Mig to SHEFLER MFG CO Thermador Electrical Mfg Co WESTINGFOUSE ELECTRIC CORP

#### HEATERS, COAL

Athenis Stoke Works Athenis Stoke Works & STANDARD SANI-TARY CORP Anchor Dil Stratton & Terstegge Co Inc Donley Brithers Excelsior Store & Mfg Co Gray & Dodley Co Hart Mfg 40 Reater Co Krass (Wilter S) Co Locke Stoke Co Range Co Malicable Iron Range Co Malicable Iron Range Co Malicable Iron Range Co Malicable Iron Store Works

#### HEATERS, CONCRETE

Aeroil Products Co Inc American Steel Works Hauck Mf: Co Unique Mfg Co Inc

#### HEATERS, CONTRACTORS,

PORTABLE FAGEOL HEAT MACHINE CO WESTERN METAL SPECIALTY CO

#### HEATERS, ELECTRIC

Adam (Frink) Electric Co Armstrong Products Corp Colurn Mg Co Colurn Mg Co Electro Mg Co Inc ELECTROMODE CORP Everylor Rismo & Mfg Co NU TONE INC Pioneer Cp Wayne Holpe Equipment Co

#### HEATERS, GAS

American Gas Michine Co AMERICAN RADIATOS & STANDARD SANI-ATENT CORP ATTESTORY DEVENTION OF A BRYANT MEATER DIV AFFILIATED GAS EQUIPACENT INC COLEMAN CO INC Combustion Engineering Superheater Inc Coronate Heater Corp Due Therin Div Motor Wheel Corp EmPIRE STOYE CO Excelsion Store & Mfg Co Folsom Ch Cirklar Products Div Gray & Hudley Co Harrison Street Cather

Harrison Steel Caninet Co HERMAN NELSON Inland Skeel Container Co King Stole & Range Co Locke Store Co NORGE HEAT DIV BORG-WARNER CORP OHIO FOUNDRY & MFG CO Portable Heater Co Quaker Mig CO Royal Heaters Inc Ruud Mfg Co SHEPLER MFG CO n Com Surface Combustion Corp Trane Co Tri-Therm Heater Co Wayne Home Equipment Co Zink (John) Co

#### HEATERS, OIL

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Aeroil Products Co Inc American Gas Machine Co COLEMAN COMPANY Dravo Corp Estate Stove Co Div Noma Electric Co Excelsior Stove & Mfg Co Florence Store Co. ENERGIA LELECTRIC CO AIR CONDITION-ING DEPT Gray & Dudley Co. International Heater Co. Kresloy Mig Co. Kresuo-Stamm Mfg Corp. Lindemann (A J) & Hoverson Co. Little (H C.) Burne Co. Locke Stove Co Lonergan Mfg Co Macleod Company Malleable Iron Range Co National Airoil Burner Co NORGE HEAT DIV BORG-WARNER CORP Northwest Metal Products Inc Northwest Metar Perfection Stove Co Prentiss Wabers Products Co Quaker Mfg Co Silent Sioux Oil Burner Corp U S Machine Corp Washington Stove Works Warne Home Equipment Co YORK-SHIPLEY INC

#### HEATERS, PORTABLE, ELECTRIC

Appliance Mfg Co Birtman Electric Co Conco Engineering Works Div Conker (H D) Co Co continental Radiant Glass Heating Corp Dayton Electric Mfg Co Der Clime Lamp Cod Economaster Products Co Inc ELECTROMODE CORP EMERSON ELECTRIC MFG CO Collection (C C C & Scour EMERSON ELECTRIC MFG CO Galbrath (C C) & Sons SEBERAL ELECTRIC CO AIR CONDITION-ING DEPT Gibert (A C) Co G M Laboratories Inc HERMAN NELSON Lauratici Monte Com nenman NELSON Imperial Motor Corp. Justrite Mfg Co Knapp-Monarch Co Landers Fraty & Clerk LA SALLE PRODUCTS INC Lawson Mfg Co. LA SALLE FRUGUES INC. Latest ME Co MARKEL ELECTRIC PRODUCTS INC Metal Products ME Co National Die Casting Co National Diel Co National Diel Co Ratestie Co Ratesti Rutenber Electric Co SHEPLER MFG CO SHEFLER MFG CU Sparton Electric Co Superior Electric Products Corp Swartzhaugh Mfg Co Tennessee Valley Associated Marketers Tepfer Appliance Co Inc Pesco Inc Thermador Electric Mfg Co Wells Lamp Corp WESTINGHOUSE ELECTRIC CO

#### HEATERS, ROOM

Adam (Frank) Electric Co Armstrong Products Corp BRYANT HEATER DIV AFFILIATED GAS EQUIPMENT INC Caloric Stove Corp CHATTANOOGA IMPLEMENT & MFG CO Cole Hot Blest Mfg Co COLEMAN CO INC David Maydole Tool Corp Duo-Therm Div Motor Wheel Corp ELECTROMODE CORP Evans Products Co Excelsion Stove & Mfg Co Farenasis and the state of Galbraith (C C) & Son Homer Furnace & Foundry Corp Kalamazoo Store & Furnace Co Kleen Heet Inc LA SALLE PRODUCTS INC Little (H C) Burner Co Inc MARKEL ELECTRIC PRODUCTS INC. National Enameling & National Radiator Co Stamping OHIO FOUNDRY & MFG CO

Payne Furnace Co Peerless Mfg Corp Perfection Stove Co Prentiss Wabers Products Co

**APRIL 1953** 

Quaker Mfg Co Works Queen Stove Works REZNOR MFG CO SHEPLER MFG CO Silent Glow Oil Bur U S Machine Corp arner Corn Viking Mfg Corp WESTINGHOUSE ELECTRIC CORP

### HEATERS, TANKLESS WATER

BELL 4 GOSSETT CO General Fittings Co Midget Heater & Specialty Co Red Spot Electric Co Taco Heaters Inc THRUSH (H A) CO Tribus Heating Conclusion Co cialties Co He

#### HEATERS, UNIT

American Gas Machine Co Automatic Gas Equipment Co Broan Mfg Co Inc CARRIER CORP CARRIER CORP Day & Night Mfg Div Affiliated Gas Equipment Inc ELECTROMODE CORP Hartzell Propeller Fan Co Div Castle Hills HERMAN NELSON Nresky Mig Co Little (H C) Burner Co MODINE MFG CO MUELLER (L J) FURNACE CO NORMAN PRODUCTS CO Peerless Mfg Co Surface Combustion Corp Temeo Lee Teneo Inc Trane Company Utility Appliance Corp Wesix Electric Heater Co Wesix Electric Heater YOUNG RADIATOR CO

#### HEATERS, WALL

Adam (Frank) Electric Co Adams Brothers Mfg Co COLEMAN CO INC Coroaire Heater Corp ELECTROMODE CORP Galbraith (C.C.) & Son GENERAL ELECTRIC CO AIR CONDITION-ING DEPT ING DEPT Holty Mig Co Kresky Mig Co Landers Franz & Clark LA SALLE PRODUCTS INC MARKEL ELECTRIC PRODUCTS INC MIANI CABINET DIV CAREY (PHILIP) MFG CO OHIO FOUNDRY & MFG CO Peerless Mfg Corp SHEPLER MFG CO Thermador Electrical Mfg Co Titan Mfg Co Wesix, Electric Heater Co. WESTINGHOUSE ELECTRIC CORP

#### HEATERS, WATER

AIRTEMP DIV CHRYSLER CORP ALDRICH CO DIV BREEZE CORP INC

ALDRICH CO DIV BREEZE CORP INC American Gas Machine Co TANDARD SANI-TARY CORP. Advantate Electric Co Inc Advantate Electric Co Inc BELL & GOSSETT CO BRYANT HEATER DIV AFFILIATED GAS EQUIPMENT INC Claveland Heather Co Cleveland Heater Co Cleveland Heater Co Coleveland Steel Products Co Toridheet Div COLEMAN COMPANY Colloid Equipment Co Inc Combustion Engineering-Superheater Inc Composition Engineering Works Div Conkey (H D) ucts Co Toridheet Div CRANE COMPANY

CRAFE COMPANY Crane Electric Industries CROSLEV DIV AVCO MFG CORP Day & Night Mir Div Affiliated Gas Equip-ment Ine OELCO APPLIANCE DIV GEWERAL MOTORS CORP Dowatlac Steel Furnate Co Duo-Therm Div Motor Wheel Corp Electromaster Evans Froducts Co Excelsion Stove & Mir Co Fairthank Morse & Co Florence Stove Co Florence Stove Co Fallmanks attests to Florence Store Co Fowler MIG Co Prindiate Dis General Motors Corp GENERAL ELECTRIC CO HOME BUREAU & CONTRACT SALES DEPT General Mater Sales Depr General Mater Hater Corp General Water Hater Corp Gillen (J L) Coater Corp Gillen (J L) Coater Hodges (M M) Co HotPoint Inc Hotstream Heater Co International Heater Co International Heater Co International Heater Co Security RATOR DIV NASH-KELVINATOR CO KELVINATOR DIV NASH-KELVINATOR CO

King Stove & Range Co KOVEN (L D) & BROTHER INC Kresky Mig Orb Landers Franz & Clark Lawson Mig Co Lesson Steep Frol & Hoverson Co Little (H C) Burner Co Michaev Electric Co MeGraw Electric Co NORGE HEAT DIV BORG-WARNER CORP Oilux Company Penherthy Injector Co Perfection Stove Co Petroleum Heat & Power Co Phileo Corporation Petroleum Heat & Power Co Phileo Corporation Pioneer Water Heater Corp Pittsburgh Water Heater Corp Ray Oli Burner Co Republic Heater Corp RHEEM MFG CO Bund Mfg Co Ban-U-Time Devices Inc. Septo Corporation SERVE1 INC Sepco Corpora SERVEL INC SÉRVEL INC Smith (A O) Corp Standard Gas Equipment Corp Swartzhaugh Mfg Co Taco Heaters Inc Tiermador Electrical Mfg Co TIMKER SILENT AUTOMATIC DIV TIM-TIMKER SILENT AUTOMATIC DIV TIM-TTATTume Report Co KEN DETROIT AXLE CO Tri-Thorm Heater Co Vestal Store Co Vising Mig Corp Waldoff Heater Co Westing Corp Westing Heater Co WESTING HOUSE ELECTRIC CORP White Products Corp White Products Corp Whitemad (Jud) Heater Co Williams Oil-O-Matic Div Eureka-Williams Co

#### HEATING CONTROLS

BARBER-COLMAN CO BELL & GOSSETT CO CLACK & GUSSETT CO Canore Store Corp Conce Engineering Works Cook Electric Co CRAME CO DELCO APPLIANCE DIV GENERAL MOTORS CORP Detroit Controls Co General Controls Co CORP Detroit Controls Co General Controls Co GENERAL ELECTRIC APPARATUS DEPT Locke Store Co MERCOID CORP MINNEAPOLIS-HONEYWELL REGULATOR CO Perfex Corp Perfex Corp. Powers Regulator Co Robertshaw-Fuiton Controls Co Robertshaw Thermostat Div Sampsel Time Control Inc Sarped Func Control Inc Screetherm Controls Inc Spencer Thermostat Div Metals & Controls 

#### HEATING SYSTEMS BASE-BOARD

AMERICAN RADIATOR & STANDARD SANI-TARY CORP BURNHAM CORP CRANE CO FEDDERS QUIGAN CORP Products Corn General Automatic Products Gerwin Industries Nesbitt (John J) Ine Radiant-Ray Radiation Ine Utica Radiator Corp VULCAN RADIATOR CO (Warren) & Co

#### **HEATING SYSTEMS, HOT** WATER OR STEAM

AIRTEMP DIV CHRYSLER CORP ALDRICH CO AMERICAN RADIATOR & STANDARD SANI-TARY CORP BELL & GOSSETT CO Brower Mig Co Brownell Co Brant HEATER DIV AFFILIATED GAS EQUIPMENT INC BURNHAM CORP BOILER DIV Century Engineering Corp Cleveland Steel Products Co CRAME COMPANY DELCO APPLIANCE DIV GENERAL MOTORS CORP FEDDERS QUIGAN CORP FEDDERS QUIGAN CORP FEDDERS BOILEY CO FEDDERS UDIAN CORP Fitzgibbons Boller Co General Automatic Products Corp GENERAL ELECTRIC CO AIR CONDITION-ING DEPT General Fittings Co Gilbert & Barker Mfg Co

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Hedges-Walsh-Weidner Div Combustion En-gineering Superheater Ine Heil Company Hotstream Heater Co Institute of Boiler & Radiator Mirs International Heater Co JOHNSON (S T) CO KOMLER CO KIER CO KOMLER CO Little (H C) Burner Co Little (H C) Burner Co Lookout Boiler & Mig Co LYCOMING-SPENCER DIV AVCD MFG CORP McCord Corp McCord Corp MUELLER (L J) FURNACE CO Munroe (B) & Sons Mfg Corp Murray (D J) Mfg Co National Radiator Co NORGE HEAT DIV BORG-WARNER CORP NORGE HEAT DIV BORG-WARNER CORP Oflux Co Penn Boller & Burner Mig Corp Persito Mig Corp Richmond Radiator Co Roberts-Gordon Appliance Corp Seattle Boller Works Surface Combunation Corp Trace Reasers Inc Corp Trace Reasers Inc Citteres Inc Corp Time Company New Detroit Axle Co Trace Company Trane Company Triplex Heating Specialties Co U S Radiator Corp Vilea Radiator Corp WATERFILM BOILERS INC Wayne Home Equipment Co Webster (Warren) & Co Will-Burt Co Will-Burt Co Williams Oil-O-Matic Div Eureka-Williams YORK-SHIPLEY INC

#### HEATING SYSTEMS, RADI-ANT

BELL & GOSSETT CO BRYANT HEATER DIV AFFILIATED GAS EQUIPMENT INC BUNDY TUBING CO BUNDY TUBING CO CANACE CONCENTRY DIFFERCO CHARGE BRASS & COPPERCO GENERAL ELECTRIC CO AIR CONDITION-ING DEFT Muclier Brass Co Revere Copper & Co Revere Copper & Co Surface Combustion Corp Travelsh (H A) & CO Utica Radiator Corp

#### ▶ HEATING SYSTEMS, RADI-ANT PANELS

Continental Radiant Glass Heating Corp Electriglas Corp Homes Inc Cecil Heat Div Mueller Brass Co Radiant Baseboard Panels Inc U & Rubber Co

#### HEATING SYSTEMS, WARM AIR

AIR AIRTEMP DIV CHRYSLER CORP American Radiator & STANDARD SANI-TARY CORP Anchor Dir Stratton & Terstegge Co Ine Armstrong Furnace Co BYTANT HEATER DIV AFFILIATED GAS EQUIPMENT INC Chiena Co InC Concaire Heater Corp CARAE COMPANY Detroit-Michigan Store Co Duo-Therm Div Motor Wheel Corp Exale Store Co Div Noma Electric Co Exals Store & Mig Co France Competitioned Store Products Ine For Function Construction Co Co Function Construction Co Encer Electric Co Airs Combition-Fluid Heak Div Anchor Fock Products Inc Fox Furnace Co General Automatic Products Corp GENERAL ELECTRIC CO AIR CONDITION-ING DEFT GETTY (H S) & CO Gilbert & Barker Mig Co Hoffman Speciality Co Holiand Furnace Co Holimy Mig Co International Heater Co Iron Fireman Mig Co International Heater Co Iron Fireman Mig Co Ressy Mig Co Inc Kressy Mig Co Inc Kress Mig Co Lock Store Co MAJESTIC CO MORRISON STEEL PRODUCTS INC MUELLER (L J) FURMACE CO MUTRAY (D J) Mfg Co National Warm Air Heating & Air Condition-ing Association ing Association NORGE-HEAT DIV BORG-WARNER CORP NORMAN PRODUCTS CO Northwest Metal Products Inc

Oakland Foundry Co Payne Furnace & Supply Co Penn Boiler & Burner Mfg Co Perfection Stove Co enn Boiler & Burner Mig Co erfection Stove Co ersiro Mfg Corp siet Automatic Burner Corp REZNOR MEG CO RECHMOND RADIATOR CO aiCHMOND RADIATOR CO Sulent Sioux Oil Burner Forp Surface Combustion Corp Viking Mig Corp Wayne Home Equipment Co Wheeling Furace Corp Will-Burt Co Williams Oil-O-Matie Dir Eureka-Williams COTP WILLIAMSON NEATER CO YORK-SHIPLEY INC

#### HINGES, BALL BEARING

ALLITH-PROUTY INC CORBIN (P & F) DIV AMERICAN HARD-WARE CORP WARE CORP Fiwale Equipment Mfg Co HAGER (C) & SONS HINGE MFG CO LOCKWOOD HARDWARE MFG CO McKinney Mfg Co BICNARDS-WILCOX MFG CO Rixson (Oscar C) STANLEY WORKS

#### HINGES, BUTT

Acoru Mfg Co Ajax Hardware Mfg Corp AMERICAN CABINET HARDWARE CORP Clinion Lock Co Consolidated Iron Steel Mfg Co. Consolid (P & F) DIV AMERICAN HARD-WARE CORP WARE CORP Earle Hardware Mrg Co Finale Knuthment Mrg Co Finale Knuthment Mrg Co Carden City Plating & Mrg Co Geneto Toni Dis Genetat Steel Warehouse Co GETTY (M S) & CO INC Geneta Steel Steel Steel Co Griffin Mrg Co HAGER (C) & SONS HINGE MFG CO ware Mfg Co Ideal Brass Works KWINSET SALES & SERVICE CO Lawrence Brothers LOCKWOOD HARDWARE NFG CO Artikingen utte tot National Lock CO National Lock CO National Lock CO Parket Brass & Hardware Mfg Co Parket (S) Hardware Mfg Co Penh Hardware Ko Petho Industries RICHARDS-WILCOX MFG CO RUSSELL & ERWIN DIV AMERICAN NARD-Safe R-dube & Hardware Co WARE CORP Safe Padlock & Hardware Co SAGER-BARROWS DIV YALE & TOWNE MFG CO SARGENT & CO Sharon Hardware Mfg Co Sharon Hardware Mfg Co Slaymaker Look To Slaymaker Lock Co STANLEY WORKS WAGNER MFG CO

# HINGES, CONTINUOUS MAGER (C) & SONS MINGE MFG CO Knape & Vogt Mfg Co National Lock Co Stanley Works

#### HINGES, FLOOR

Bonumer Spring Hinge Co Chicago Spring Hinge Co Clinton Lock Co Frantz MFG CO Hager (C) & Sons Hinge MFG CO National MFG CO Pittsburgh Plate Glass CO STANLEY WORKS

#### HINGES, GATE

ntu Mfg Co ACOLIMIE CO CORBIN (P & F) DIV AMERICAN HARD-WARE CORP CYCLONE FENCE DIV AMERICAN STEEL & WIRE CO FRANT2.MFG CO Griffin Mfg Co HAGER (C) & SONS HINGE MFG CO Ideal Brass Works Inc KEYSTONE STEEL & WIRE CO McKinney Mfg Co NATIONAL MFG CO RUSSELL & ERWIN DIV AMERICAN HARD-WARE CORP STANLEY WORKS WAGNER MFG CO

#### HINGES, INVISIBLE

AMERICAN CABINET HARDWARE CORP NATIONAL LOCK CO Parker (S) Hardware Mfg Co RICHARDS-WILCOX MFG CO STANLEY WORKS

HINGES, SPRING, DOOR AMERICAN CABINET HARDWARE CORP

AMERICAN CABINEL MANDWARE CORP Bonmer Spring Hinge Co Chicago Spring Hinge Co Cleveland Lock Works CORBIN (P & F) DIV AMERICAN HARD-WARE CORP WARE CORP Fivale Equipment Mfg Co FRANTZ MFG CO Geneco Tool Diy General Steel Warehouse Co HAGER (C) & SONS HINGE MEG CO τ. nce Brothers Milwaukee Stamping Co NATIONAL MFG CO RUSSELL & ERWIN DIV ANERICAN HARD-WARE CORP ARE CORP on Hardware Mfg Co Shelby Spring Hinge Co STANLEY WORKS

#### HINGES, STRAP

Acorn Mfg Co Brainerd Mfg Co in Hardware Co Consider the Construction of the Construction Erco Mfg Co Fiwale Equipment Mfg Co FRANTZ MFG CO Genseo Tool Div General Steel Warebouse Co Griffin Mfg Co HAGER (C) & SONS HINGE MFG CO MAGER (C) & SONS HINGE N Johann Industries Inc Kinape & Vogt Mfg Co MATIONAL BRASS CO NATIONAL BRASS CO NATIONAL LOCK CO NATIONAL LOCK CO NATIONAL MFG CO Partor (S) Hardware Mfg Corp Peters (James) & Son Pottor (S) Reflecto Letters RICHARDS-WILCOX MFG CO Sharon Hardware Co Slaymaker Lock Co Standard Bronze Co STANLEY WORKS

#### HOISTS, CHAIN

American Chain Div of American Chain & HOME FREEZERS Cable Co Chistolm Moore Hoist Corp Div Columbus Me-Kinn Ch Cleveland Trammali Div Cleveland Crane & Engineering Co Coffing Hoist Co Ford Chain Nicck Div American Chain & Cable Co Inc Moore Dry Killo Co Nordherg Mfg Co Reading Chain & Block Corp Western Foundry Co Wright Hoist Div American Chain & Cable VALE & TOWNE MFG CO

#### HOISTS, ELECTRIC King Mfg Co

#### HOISTS, MECHANICAL POWERED

ALLIS CHALMERS MEG CO. American Engineering Co American Hoist & Derrick Co Bridgeport Chain & Mfg Co C H & E Mfg Co Chisholm-Moore Hoist Corp Div Columbus-Me-Kinnon Chain Corp Kinnon Chain Corp Cleveland Tramrail Div Cleveland Crane & Engineering Co Clyde Iron Works Ine Coffing Houst Co CONSTRUCTION MACHINERY SALES CO etroit Hoist & Machine Co lectro Lift Inc ssick Mfg Co althanks Morse & Co ifford-Wood Co HARMISCHFEGER CORPORATION LAFGER MACHINE CO King Mig Co Lewis-Shepard Products Ine Lisbon Hoist & Crane Co Louden Machinery Co Master Electric Co National Serew & Mfg Co National Serve & Mrg Co National Serve & Mrg Co Reading Chain & Block Corp Roblins & Myers Inc Shaw Box Crane & Holst Div Manning Max-acil & Moore Inc Shipard Niles Crane & Holst Corp Nilent Holst & Crane Co Philty Holst & Manufacturing Co Startine Inc Stammel Winch Co Stimmel Winch Co Vulcan Iron Works Co ashington Iron Works Whiting Corp Wright Hoist Div American Chain & Cable Co

VALE & TOWNE MEG CO

#### HOISTS, PORTABLE

CLIPPER MFG CO CONSTRUCTION MACHINERY SALES CO King Mfg Co

#### HOISTS, SKIP

ALLIS-CHALMERS MFG CO American Hoist & Derrick Co American Hoist & RESSER MFG CO BESSER MFG CO Brady Conveyors Corp Concrete Transport Mixer Co Fairbanks Morse & Co Fairbanks Morse & Co Fairfield Engineering Co Fleming Mfg Co Inc Gifford-Wood Co Godfrey Conveyor Co Hyster Company Jeffrey Mfg Co Link-Belt Co Little Giant Products Inc Neff & Fry Co Neff & Fry Co Shaw Box Crane & Heist Div Manning Max-well & Moore Inc Silent Hoist & Crane Co

Anthony Company Cenco Industries Inc Galion Allsteel Body Co GETTY (M S) & CO INC CETTY (W S) & CO ING Heil Company Hercules Sitel Products Corp Hyster Company Little Giant Products Ine Marion Metal Products The Perfection Sitel Body Co St Paul Bydraulic Hoist Div Wood (Gar) Industries Ine Shaw Bos Crane & Hoist Div Manning Max-well & Moore Ine Silent Hoist & Crane Co Stimmel Winch Co Stimmel Winch Co Wood (Gar) Industries Ind VALE & TOWNE MFG CO

#### HOLDERS, SAND PAPER RED DEVIL TODIS

Annon Chain Corp Amana Society reland Tramrail Div Cleveland Crane & AMERICAN CENTRAL DIV AVCO MFG CORP CORP American Refrigerator & Machine Co Ben-Hur Mfg Co Brewer-Titchener Corp Clayton & Lambert Mfg Co Clayton & Lambert Mfg Co Coolerator Corp. CROSLEY DIV AVCO NFG CO Declaral Separator Co Esso Cabinet Con Co Friedaire Dir General Motors Com Friedaire Dir General Motors Com GEMERAL ELECTRIC CO HOME BUREAU & CONTRACT SALES DEFT General Imolement Corp. General Inplement Corp General Refrigerator Corp Gibson Refrigerator Co Gilfilan Bros Inc MOTPOINT INC International Harvester Co ewett Refrig Jewett Refrigerator Co Jordan Refrigerator Co KELVINATOR DIV NASH-KELVINATOR CO Cennedy Co Lindemann (A J) & Hoverson Co Martin-Parry Corp Masterfreez Maytag Co eze Corp Martag Co Muncie Gear Co NORGE DIV BORG-WARNER CORP (APPLI-ANCE DIV) NOBGE DIV UBBG-WARNER CORP (APPLI-ANCE DIV) Phileo Corp Portable Elevator Mfg Co Pressed Steel Co Effigiention Corp of America Bobbins & Burke Inc Sautary Refrigeration Co Sautary Refrigeration Co Sautary Refrigeration Co Sub-Zern Preser Co Tyler Fixture Co Victor Products Corp Weard Refrigerator & Mfg Co Webry Showcsse & Fixture Co Whiting Corp Wilson Cabinet Co Winpower Mfg Co

#### ► HONES

BEHR-MANNING CORP DIV NORTON CO Carborundum Company GETTY (M S) & CO INC

#### HOOKS, PLASTIC

Columbus Plastic Products Inc Fiwale Equipment Mfg Co GETTY (H S) & CO INC

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

HOOKS AND EYES, GATE Larson (Charles 0) Co SARCENT & CO

#### HOOKS AND EYES, SCREW

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Astrup Company FRANTZ MFG CO FRANTLE MFL GO Grand Bandis Brass Co Grand Bandis Brass Co MAGER (C) & SONS HINGE MFG CO Judd (H L) Co Inc Larson (Clarics O) Co School Co ompany ashburn

#### HOPPERS, AUTOMATIC WEIGHING

BESSER MEG CO Butler Bin Co CONSTRUCTION MACHINERY SALES CO Totedo Scale Co WORTHINGTON CONSTRUCTION CORP EQUIPMENT SALES DIV

#### HOSE, AIR COMPRESSOR

Acme Bubber Mfg Co Boston Woren Hose & Bubber Co Broadway Rubber Mfg Co Cincinnati Bubber Mfg Co Continental Rubber Works De Vilviss (Company Electric Sprayit Co Gates Rubber Co Goodriel (B F) Co Raybestos-Manhattan Ine Manhattan Rubber Kaybestos-Manhattan ine Mannattan kunne Div Republic Rubber Div Lee Rubber & Tire Corp Sta-Warm Electric Co Thermoid (Company Union Rubber & Asbestos Co

WORTHINGTON CORP CONSTRUCTION EQUIPMENT SALES DIV

#### HYDRANTS

American Foundry & Mfg Co Columbiant Funn Co CRANE COMPANY Eddy Valvy Co Knights (James) Co Murdoek Mirg & Supply Co Woodford Hydrant Co

#### HYDRAULIC TAIL GATES

Anthony Co Inc Cemco Industries Inc Day Compluy Fruchauf Trailer Co Heil Co Hercules Steel Products Corp Perfection Steel Body Co

#### **INCINERATORS**

 INCLINEINAL URD
 Incluentator Corp
 Iowser Int
 Bruke Incluentator Corp
 Colloid Eluipment Co Ine
 Detroit Michigan Store Co
 Ponley Brythers
 Ewing Incluerator Corp
 Fiske (J W) Iron Works
 Goder Incluerator Corp
 Industrial Iron Works
 Kerner Incluerator Dir Morse-Boulger De structor (Co MAJESTIC COMPANY

MORSE Boulger Destructor Co MUELLER (L J) FURNACE CO Chin Stori Co Pittshurgh Lacinerator Co Seattle Boller Works Syncause Alloy Metals Corp Valley Welding & Boller Co Calcinator Div Watson Sales Mfg Co Wheeling forrugating Co

#### ▶ INDICATORS, BUTTON LOCKWOOD HARDWARE MEG CO

#### ► INSECTICIDES

Abesto Mfiz Corn Abesto Mig Corp Adeo Inc : Agkem Inc American Agricultural Chemical Co American Oganamid Co American Oli Co BARRETT DIV ALLIED CHEMICAL & DYE CORP

Bengal Company Bengal Company Bonhide (hemical Co Boyer Chemical Co Boyle Midway Ine Cambo Chemical Co Ine Carbola Chemical Co Ine Carbolaneum Wood Preserving Co Chapman Chemical Co Chapman Chemical Co Chemical Supply Co Coopers Creek Chemical Corp Crescent Hooducts Co

Dow Chemical Co DuPont (E I) de Nemours & Co Glidden Company Gordon (George C) Chemical Co Guif Oil Corp Harris Products Co Inc Harrop Chemical Co Hollingshead (R M) Coro Hollingshead (R M) Corp Koppers Co Inc Lilly Products Co Linck (O E) Co Inc Meinhardt (J A) & Co MONSANTO CHEMICAL CO Pennsylvania Salt Mfg Co PITTSBURGH PLATE GLASS CO lunkett Chemical Co ROTECTION PRODUCTS MFG CO Puritan Chemical Co Rat Biseuit Co Rotenone Products Co Inc. Schutte Laboratories SHERWIN-WILLIAMS CO Socony-Vacuum 0:1 Co Inc SOLVAY PROCESS DIV ALLIED CHEMICAL 4 DYE CORP Standard 0:1 Co of Ind Stark (N H) 4 Co Swift 4 Co Tanglefoot Company U S Rubber Co Vaporine Comp Vaporine Company Wood-Treating Chemicals Co.

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#### INSTRUMENTS, DRAFTING

Dietzgen (Eugene) Co Eberhard Faber Peneil Co Higgins (Charles M) Co KEUFFEL & ESSER CO REUFFEL & ESSEN Loomis Industries Pickett & Eckel Inc Post (Frederick) Co Post (Frederick) Co Smith (H E) Co Stiles (H A) Co Universal Drafting Machine Corp. WAREN-KNIGHT CO WHITE (DAVID) CO Woodrow Engineering Co

#### INSTRUMENTS, INDICATING, **RECORDING AND CON-**TROLLING

Bradley (L B) & Co Colloid Equipment Co Inc Foxhoro Company GENERAL ELECTRIC CO APPARATUS DEPT MINNEAPOLIS HONEYWELL REGULATOR

MINEAPOLIS MONETWELL REC CO Moore Dry Kiln Co Newark Boller Regulator Corp Tagliabue (C J) Corp Tagliabue (C C J) Corp Waston Electrical Instrument Corp Wheelco Instruments Co

#### INSTRUMENTS, SURVEYING

Argyle Manufacturing Co Berger (C L) & Sons BOSTROM-BRADY MFG CO el Tap e to Goldblatt Tool Co KEUFFEL & ESSER CO Keyslone Asphalt Products Co Post (Frederick) Co Royal Oak Industries Starrett (L S) Co Starrett (L S) Co WARREN-KNIGHT CO WHITE (DAVID) CO

#### INSULATION, ALUMINUM FOIL

Barnhardt Mfg Co CERTAIN-TEED PRODUCTS CORP INFRA INSULATION INC Insl-Cotton Div Taylor Be NATIONAL GYPSUM CO New Holland Metals Co New Holland Metals Co Protective Papers Co REFLECTAL CORP REYNOLDS METALS CO BUILDING PROD-UCTS DIV U S GYPSUM CO

#### INSULATION, BATT OR **BLANKET, COTTON FIBER**

CERTAIN-TEED PRODUCTS CORP Insl-Cotton Div Taylor Bedding Mfg Co Insulation Industries Inc and the second s

#### ▶ INSULATION, BATT OR **BLANKET, COTTON FIBER, ALUMINUM FOIL**

Insl-Cotton Div Taylor Bedding Mfg Co APRIL 1953

Insulation Industries Inc Lockport Cotton Batting Co Standard Cotton Products Co

INSULATION, BATT OR BLANKET, FIBROUS GLASS ARMSTRONG CORK CO INSULITE CO DIV MINNESOTA & ONTARIO PAPER CO OWENS-CORNING FIBERGLAS CORP INSULATION, BATT OR BLANKET, MINERAL WOOL Covering & Flooring Co BARRETT DIV ALLIED CHEMICAL & DYE INSULATION, GLASS, CELLU-CO CAREY (PHILIP) MEG CO

Carney Co Inc CELOTEX CORP CERTAIN-TEED PRODUCTS CORP Coast Insulating Products Corson (G & WH) Inc Cornon (G & WB) Inc Eagle-Picher Co FLINTKOTE COMPANY Ford Roong Products Co Forty-Eight Insulations Inc GREAT LAKES CARBON CO PERLITE DIV HUNTINGTON INDUSTRIES INC/ Insul-Wool Insulation Corp JOHNS-MANVILLE CORP Kelley Island Lime & Transport Co Kimberly Clark Corp Kimsul Div Lehon Company Lehon Company Mineral Insulation Co WATIONAL GYPSUM CO National Rock Wool Sales Ine Plastergon Wall Board Co Riverton Lime & Stone Co Ine RODDIS PLYWOOD CORP RODDIS PLYWOOD CORP Sealtite Insulation Mfg Corp Tennessee Products & Chemical Corp U S GYPSUM CO U S Mineral Wool Co Western Mineral Products Co

#### **INSULATION, BATT OR BLANKET, WOOD FIBER**

CAROT (SAMUEL) INC Kimberly-Clark Corp MASONITE CORPORATION PACIFIC LUMBER CO RODDIS PLYWODD CORP Simpson Logging Co WOOD CONVERSION CO

#### INSULATION, BLOWING WOOL

Asbestos Asphalt & Insulation Ine BARRETT DIV ALLIED CHEMICAL & DYE CORP

CORP Burton (S T) Co CAREY (PHILIP) MEG CO Carney Co Inc Forty-Eight Insulations Inc HUNTINGTON INDUSTRIES INC Insul-Wool Insulation Corp JOHNS-MANVILLE CORP NATIONAL GYPSUM CO Pal-O-Pak Insulation Co Sealtite Insulation Mfg Co U S GYPSUM CO U S Mineral Wool Co WOOD CONVERSION CO

#### INSULATION, BOARD, CORK ARMSTRONG CORK CO BUILDING MATE-

#### INSULATION, BOARD, FIBER

P INJULATION, BUAKU, FIBER AIR-D-C0 Co ARMSTRONG CORK CO BIRD & SON INC CELOTEX CORPORATION CELOTEX CORPORATION CERTAIN-TEED PRODUCTS CORP DANT & RUSSELL FIFTCE INDUSTIC CORPARY HOSLOTE COMPARY Kimberly-Clark Corp NATIONAL GYPSUM CO Plastergon Wall Board Co Rubatex Div Great American Industries Simpson Logging Co U S GYPSUM CO WOOD CONVERSION CO

#### INSULATION, BOARD, **MINERAL WOOL**

Acme Asbestos Covering & Flooring Co ARMSTRONG CORK CO BUILDING MATE-

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

RIALS DIV RIALS DIV Baldwin-Hill Co CAREY (PHILIP) MFG CO Chicago Fire Briek Co Cosst Insulating Products Corson (G & W H) Inc Green (A P) Fire Briek Co JOHNS-MANYILLE CORP Logan-Long Co. Logan-Long Co OWENS-CORNING FIBERGLAS CORP Standard Asbestos Mfg Co

#### INSULATION, BOARD, REFLECTIVE

Air-O-Cel Co

LAR PITTSBURGH CORNING CORP

#### INSULATION, GLASS FOAM ARMSTRONG CORK CO

#### INSULATION, GRANULAR FILL, EXPANDED, VERMICU-

LITE, ETC. Alexander Film Co Alexite Engineering Co Div Div American Bildrok Co American Vermiculite Co Inc Asbestos Supply Co Empire Roofing & Insulation Co Gladding McBean & Co GREAT LAKES CARBON CORP PERLITE DIV Intermountain Insulation Co Munn & Steele Inc Northwest Insulation Co Northwest Insulation Co Pyramid Co Robinson Insulation Co Schundler (F E) & Co Ine Silbrico Corp Vermiculite Products Corp Western Mineral Products Co ZONOLITE CO

### INSULATION, LOOSE FILL.

GLASS ARMSTRONG CORK CO BUILDING MATE-RIALS DIV RIALS DIV CARREY CO BRODUCTS CORP FLIATNOTE CO INSULITE DIV MINNESOTA & ONTARIO PAPER CLIME & Transport Co Wells-CORNING FIBERGLAS CORP

# **MINERAL WOOL**

Acme Aubestos Covering & Flooring Co Alton Mineral Wool Co American Rock Wool Corp Asbestos Asphalt Insulation Inc Baldwin-Hill Co BARRETT DIV ALLIED CHEMICAL & DYE CORP CORP Broadway Rubber Mfg Co Burton (S T) Co CAREY (PHILIP) MFG CO Carney Co Inc Carney Co Inc CELOTEX CORP CERTAIN-TEED PRODUCTS CORP Chamberlin Co of America Inc Chicago Fire Brick Co Coast Insulating Producta Corson (G & W H) Inc CORDING CONTRACTOR CORPORT GREAT

DIV Insul-Wool Insulation Corp JOHNS-MANVILLE CORP Kelley Island Line & Transport Co Lebon Co Lebon Co Mineral Insulation Co NATIONAL GYPSUM CO NATIONAL GYPSUM CO Pattergon Wall Board Co Riverton Lime & Blone Co Ine Scalitic Insulation Mfg Co Scalitic Insulation Mfg Co U S discrete Comp U S discrete Comp

#### INSULATION, LOOSE FILL. WOOL CELLULOSE

FLINTKOTE CO Hines (Edward) Lumber Co PACIFIC LUMBER CO Pal-O-Pak Insulation Co Inc

#### ▶ INSULATION, REFLECTIVE

Aifol Insulation Co American Flange & Mfg Co Inc BIRD & SON INC CELDTEX CORP CERTAIN-TEED PRODUCTS CORP Milman Brothers CHIRAN DASULTION INC HAFRA MASULTION INC Kimberdy-Clark Corp MATONAL CYPSUM CO MATONAL CYPSUM CO Protectine Papers Inc UCTS DIV RICHKRAFT CO Reading Mrg Corp Sistercote Products Inc Sist

#### INSULATION, ROOF, DECK

CELOTEX CORP Porete Mfg Co Simpson Logging Co

#### **IRONERS**

Altorfer Bros Co American Ironing Machine Co APEX ELECTRICAL MFG CO APEX ELECTRICAL WFG CO Armstrome Froduets Corp Automatic Washer Co Benoix Home APPLIANCES INC DIV AVCO MFG CORP Conton Bros Mfg Co Conton Bros Mfg Co Conton Moore Corp CrossLEY DIV AVCO MFG CORP Easy Washing Machine Corp Frigidate Die General Motors Corp GENERAL ELECTRIC CO HOME BUREAU & CONTRACT SALES DEPT HOTPOINT INC Ironite Iron Co Tronte Iron Co Kelvinator Div NASH-Kelvinator Corp Frary & Clark Landers Frary & Clark Maytag Co Midwest Metal Stamping Co Nineteen Hundred Corp Thor Corp Voss Brothers Mfg Co WESTINGHOUSE ELECTRIC CORP

#### IRON, ORNAMENTAL

ARTCRAFT ORNAMENTAL IRON CO Badger Wire & Iron Works Inc Beaux Art Crafts Bellkoal Co BELSON MFG. CO BELSON MFG. CO Birmingham Ornamental Iron Co CINCINNATI IRON FENCE CO COFFMAN (R C) CO Dallas Iron & Wire Works Davis & Stehl Co Parts & Stehl Co Davis & Stehl Hutchinson Co Johnson Industries Inc Locke Mfg Co Logan Co Lorio Iron Works METAL CRAFTERS INC Meyers (Fred L) Mfg Co Newman Brothers Inc Bock Island Millwork Co Samceo Ornamental Iron Co Southern Wire & Iron Works Stewart Iron Works Co Inc STURDEE METAL PORCH CO Warner Iron Works Logan Co

Wagner Iron Works Wiemann (Ernest) Iron Works

#### IRONS, SOLDERING

Barrett (William L) Co Bernz (Otto) Co Inc Colloid Equipment Co Inc Eagle Electric Mfg Co Electric Soldering Iron Co Hexacon Electric Co Lenk Mfg Co STANLEY TOOLS DIV STANLEY WORKS Turner Brass Works Waage Electric Inc Wall (P) Mfg Co

#### IRONS, SOLDERING, ELEC-TRIC

Everhot Mfg Co GENERAL ELECTRIC CO APPLIANCE & MERCHANDISE DEPT Ideal Industries Inc Lenk Mfg Co STANLEY TOOLS DIV STANLEY WORKS

#### JACKS ADJUSTABLE, WOOD-STEEL

Breyer Brothers Whiting & Co Clay Equipment Corp Flint (A W) Co Holm's Mfg Co of Ohio

# INSULATION, LOOSE FILL.

M & M Wire Clamp Co Newark Ladder & Bracket Co Inc PATENT SCAFFOLDING CO INC Spurgeon (N P) Co STEEL SCAFFOLDING CO INC Templeton Kenly & Co United Metal Products Inc

> JACKS, CEILING Gynsum Ceiling Jack Co

JACKS, HOUSE

American Scale Co American Skein & Foundry Co Berg (John) Mfg Co Buda Company Duff-Norton Mfg Co Joyce-Cridland Co Spurgeon (N P) Co Stimmel Winch Co Swett (A L) Iron Works Templeton Kenly & Co

#### > JACKS, LADDER

American Ladder Co Bahcock (W W) Co Inc Bauer Mfg Co Breyer Brothers Whiting & Co avenport Ladder Co int (A W) Co shen Mfg Co Flint Goshen Mfg Co G E & G Stamping Co Heider Mfg Co Holiand Ladder & Mfg Co Holm's Mig Co Howard Mig Co Hyde Mig Co Moulton Ladder Mig Co Riches Mig Co Riches Mig Co

#### > JALOUSIES

Casement Hardware Co Fiwale Equip Mfs Co Future Products Inc GATE CITY SASH & DOOR CO LUDMAN COPP PRO-TECT-U JALOUSIE CORP RUSSELL (F C) CO THORM (J S) CO

JAMBS, DOOR METAL DELUXE METAL TRIM CO

#### > JAMBS, PACKAGED DOOR

NEWANEE MFG CO LONG-BELL LUMBER CO Rock Island Millwork Co Silerest Co

JIGS, BORING CORBIN (P & F )DIV AMERICAN MARD-WARE CORP LOCKWOOD MARDWARE MFG CO

> JIGS, LOCK MORTISING KWIKSET SALES & SERVICE CO NATIONAL BRASS CO Vimcar Sales Co WESTWOOD MEG CO

▶ JOINTERS

ATLAS PRESS CO BOICE CRANE CO DE WALT INC Master Woodworker Mfg Co ROCKWELL MFG CO DELTA POWER TOOL DIV Walker-Turner Div Kearney & Trecker Corp

#### JOINTERS, MASON'S

Adams (C F) Inc Disston (Henry) & Sons Inc Economy Mfg Co Goldhlatt Tool Co Marshalltown Trowel Co Paine (Benjamin O)

#### > JOINTERS, SAW

Atkins (E C) Div Borg Warner Corp BOICE CRANE CO Disston (Henry) & Some Los Sons Inc. FRSON DIV ST PAUL BOILE Unenry) & Sons Disston (Henry) & Sons HESTON & ANDERSON FOUNDRY & MFG CO Muster Woodworker Mfg C Nater Wasduorsker Mig Co Oliver Machinery Co Power (L) & Co Powermatic Machine Co Present Co ROCKWELL MFG CO DELTA POWER TOOL DIV

DIV Stetson-Ross Machine Co Wallace (J D) & Co Vates-American Machine Co

# JOINTS, EXPANSION CAREY (PHILIP) MFG CO CECO STEEL PRODUCTS CO CELOTEX CORP FLINTKOTE CO Horn (A C) Co

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JOHNS-MANVILLE CORP Keystone Asphalt Products Co Meadows (W B) Inc PITTSBURGN CORPINS CORP Protective Papers Inc ST PAUL CORRUGATING CO Pervicised Products Corp

# JOINTS, METAL

Brasco Mfg Co New Holland Metals Co REYMOLDS METALS CO BUILDING PROD-UCTS DIV Soule Steel Co JOISTS, CONCRETE, PRECAST CARTER-WATERS CORP. Driss Brothurs

#### JOISTS, STEEL

American Bridge Co Bethlehem Steel Co CECO STEEL PRODUCTS CORP Gabriel Steel Co GREAT LAKES STEEL CORP Haven Busch Co International Steel Co JONES & LAUGHLIN STEEL CO LACLEDE STEEL CO Soule Steel Co STRAN-STEEL DIV GREAT LAKES STEEL CORP TRUSCON STEEL CO UNITED STATES STEEL CO

#### ► KITCHEN ACCESSORIES AMERICAN CABINET HARDWARE CORP AMERICAN CENTRAL DIV AVCO MFG CORP

Autoyre Co Bache (Semon) & Co Bay Ridge Specialty Co Ine Columbia Metal Box Co Columbus Plastic Products Inc Columbus Plastic Products Ine Ekco Products Co Handy Things Mfg Co Hilinois Poreelain Enamel Co IXL Furniture Co Ine Jamestown Metal Products Co KITCHEN MAID CORP RITCHEN MAID CONF Knape & Yogt Mfg Co Lindemann (A J) & Hoverson Co MIANI CABINET DIV CAREY (PHILIP) MFG CO MULLINS MFG CORP PITTSBURGH PLATE GLASS CO St Charles Mfg Co Superior Household Mfg Co TRACY MFG CO DIV EDGEWATER STEEL CO U S Lock & Hardware Co

#### **KITCHEN CABINET** ACCESSORIES

ALLESSURIES AMERICAN CABINET HARDWARE CO AMERICAN CENTRAL DIV AVCO MFG CORP BERGER MFG CO REPUBLIC STEEL CORP CARR ADAMS & COLLIER CO Eldon Mfg YO Enginered Products Co Excel Metal Cabinet Co Inc Fiwale Eminment Mfg Co GETTY (N S) & CO INC IXL Funditure Co IXL Furniture Co Jamestown Metal Products Co KITCHEN MAID CORP Knape & Vogt Mfg Co Lyon Metal Products Inc McMAHAN BROS Midwest Mfg Co Morgan Co Morton Kitchen Cabinet Div Morton Mfg Co Morton Kitchen Cahinet Die Morton Mfg Co KULLIMS NFG CO NATIONAL BRASS CO Paragon (Tillise Corp SARGENT 4 CO TOLEDO DESK & FIXTURE CO TOLEDO DESK & FIXTURE CO TACEY MFG CO DIV EDGEWATER STEEL CO WASHINGTON STEEL PRODUCTS INC YALE & TOWNE MFG CO

#### **KITCHEN CABINETS, METAL**

Acme Metal Products Corp American Central Div AVCO NFG CORP ANGEL NOVELTY CO BERGER MFG DIV REPUBLIC STEEL CORP CROSLEY DIV AVCO MFG CORP DWYER PRODUCTS CORP Elgin Stove & Oven Div Acme Visible Records Inc Excel Metal Cabinet Co FANTE ABELER CADINEL CO. Friddaire Dis General Motors Corp. GENERAL ELECTRIC CO APPLIANCE & MERCHARDISE DEPT Genera Modern Kitchens Inc Gold Seal Mig Co. Gold Seal Mig Co. HOTPOINT INC

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

HUBENY BROS INC Mfg Jamestown Metal Products Co KELVINATOR DIV NASH-KELVINATOR Lyon Metal Products Co MARVEL WETAL PRODUCTS CO Midlewst Mfg Co Miller Metal Products Inc Morton Mfg Co MULLINS WFG CORP OF AWERICA Naturnal Metal-Art Mfg Co Paragon Cillilies Corp Pioneer Co Royalmaid Kitchen Inc St Charles Mfg Co Shirley Corp

St thartes Mig Co Stiller Cop TOLEDO DESK & FISTURE CO TRACY MFG CO DIV EDGEWATER STEEL CO United Metal Box Co Western Metaletaft Ine Wood-Metal Industries

#### **KITCHEN CABINETS, WOOD**

Ahlbrand (A H) Co ANGEL NOVELTY CO Bel-Wood Mfg Co Boro Wood Co Boro Wood Products Co Inc Burke Millwork Co Cameron (Wm) & Co Inc CARR ADAMS & COLLIER CO Colonial Products Co Davis Plywood Corp Del-Mar Cabinet Co Inc Dyke Brothers Farley & Loetscher Mfg Co Farley & Loctscher Mig Co Gamnon Mig Co General Wood Works GREGG & SON Hines (Edward) Lumber Co Huttig Mig Co Huttig Sash & Door Co Hyde Park Lumber Co Hyde Park Lumber Co Ideal Co IXL Furniture Co Kinzua Pine Mills Co KITCHEN MAID CORP Kraus (Walter S) Co LONG-BELL LUMBER CO Marquart Millwork Co MENGEL CO INC Morgan Co Morgan Sash & Door Co Mutschler Brothers Pioneer Co Rock Island Millwork Co Slosswood Inc Spokane Sash & Door Co Sterling Freeland Industries Inc Wood-Metal Industries

#### **KITCHENS, UNIT**

BRAMMER MFG CO CARR ADAMS & COLLIER CO Douglas Distributor Co DWYER PRODUCTS CO Frost-Stupere Sales Co GENERAL AIR CONDITIONING CORP GENERAL ELECTRIC CO HOTPOINT INC HUGENY BOTHERS INC MURRY DOOR BED CO MURRAY CORP OF AMERICA Woodmetal Industries Inc

#### **KITCHEN VENTILATING** HOODS

Radger Corrugating Co FAWSCO MFG DIV FALL STAMPING & WELDING CO NOBERTS MFG CO St Anthony Corp Universal Blower Co Vent-A-Hood Co

#### KITS, HOME PLANNING

Hom-O-Graf Planner Inc Planitect Co SAN ANGELO PLAN

**KNIVES, FIBER BOARD** KIMBALL MFG CO INC Selek (Walter E) & Co

#### **KNIVES, HIGH SPEED**

Atkins (E.C.) Div Borg Warner Corp Disston (Henry) & Sons Inc Ekstrom Carlson & Co Diston (Henry) & Sons Inc Ekstron Carlson & Co Hanchett Mfg Co Hoe (R) & Co Inc Oliver Machinery Co SIMONDS SAW & STEEL CO Taylor-Stilles & Co Woods (S A) Machine Co

#### **KNIVES, MACHINE**

American Knife Co Atsins (E C) Div Borg Warner Corp. Disston (Henry) & Sons Inc Hoo (R) & Co Inc Hoimes (E & B) Machinery Co Huther Brothers Saw Mfg Co Inc Huther Brothers Saw Mirg Co Mitts & Merrill Oliver Machinery Co SIMONDS SAW & STEEL CO Taylor Stiles & Co Woods (S A) Machine Co

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#### **KNIVES, PUTTY, ROOFING,** LINOLEUM

Barrett (W L) Co Black Panther Tool Co Bridgeport Hardware Mfg Corp B & T METALS CO Edwards Mfg Co FASTENER CORP GETTY (M S) & CO INC Glaziers' Tool Mfg Co Gladiatt Tool Co Handy Things Mfg Co Hyde Mfg Co Kler-Vue Knife Rack Co Ine Lemmon & Gandmart Wis (in Lamson & Goodnow Mfg Co Landers Frary & Clark Landers Erlouine All C Landers Erlouine All C Honor Co MACKLANEURS-OUNCAN CO Mutray-Black Co Mutray-Black Co Mutray-Black Co PitTSEURCH PLATE GLASS CO PITSEURCH PLATE GLASS CO PITSEURCH PLATE GLASS CO PITSEURCH PLATE GLASS CO Sandrik Naw & Tool Corp Schrade (George) Seal Bite Caulking Co Ine Selek (Walter E) & Co Southington Hardware Mfg Co S & W Moulding Co Taylor-Stilles & Co Tuge Mfg Co. Tuck Mfg Co Warner Mfg Co Williams Products Co Inc Youngstown Mfg Inc

#### **KNIVES, VENEER**

Atkins (E C) Div Borg Warnet Corp Disston (Henry) & Sons Inc Hoe (R) & Co Inc SIMONDS SAW & STEEL CO

#### LADDER ACCESSORIES

Breyer Bros Whiting & Co Dayton Safety Ladder Co Duo-Safety Ladder Corp Holmes Mfg Co of Ohio Michigan Ladder Co PATENT SCAFFOLDING CO INC RED DEVIL TOOLS Safety Equipment Service Co STEEL SCAFFOLDING CO INC WAGNER MFG CO

#### LADDER, STEPS, SAFETY Campbell (A S) Co Inc O'Neil (Carl W) Associates Inc

#### LADDERS, ALUMINUM

Aluminum Ladder Co American Ladder Co Chesley Industries Inc Werner (R D) Co Wilson-Albrecht Co

#### LADDERS, STEEL

Arvis Mfg Co Arris Mig Co Ballymore Co Chesley Industries Ine Fiwale Equipment Mfg Co International Steel Co Logan Co Newark Ladder and Bracket Co Ine Precision Equipment Co Werner (R D) Co

#### LADDERS, WOOD, ALL TYPES

CADDERS, WOOD, American Ladder Co Bahecock (W W) Co Rauer Mfg Co Ret & Company Inc Berg & Johnn Mfg Co Rereer Bruthers Whiting Co Clark (J R) Co Prinel Ladder Co Finst (J R) Co Finst (J R) Co Finst (J R) Co Goshen Mfg Co Goshen Mfg Co Goshen Mfg Co Heider Mfg Co Heider Mfg Co Heider Mfg Co Heider Mfg Co Heidan Mfg Co Heidan Mfg Co Heidan Mfg Co Hoinand Ladder Ko Michaelse Ladder Co Mediana Ladder Co

AMERICAN BUILDER

Newark Ladder & Bracket Co Inc PATENT SCAFFOLDING CO INC PITTSBURGH PLATE GLASS CO Rich Ldovard B) Rich Ladder & Mfg Co RICHARDS-WILCOX MFG CO ROVE MFG CO Smith (S A) Mfg Co Talley (John 8) Ladders Co Tilley (John 8) Ladders Co Warmen & Di Mfr. Co Topping Ladder Co Warren (J D) Mfg Co White Wood Products Co White Wood Products Co Willamette Valley Lumber Co Woodenware Products Corp Young (J O) Co Zoss Ladder & Mfg Co

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# LAMPS, FLUORESCENT GENERAL ELECTRIC CO LAMP DEPT Sylvania Electric Products Inc Westinghouse Electric Corp LAMP

#### LAMPS. INCANDESCENT

GENERAL ELECTRIC CO LAMP DEPT GEMERAL ELECTRIC CD LAMP DEPI Lighmore Appliance Corp Pennsylvania Illuminating Corp Safety Electric Co Silvray Lighting line Sylvania Electric Products Ine Verd-A-Ray Corp WESTINGMOUSE ELECTRIC CORP LAMP

#### LAMPS & LANTERNS, CAMP

COLEMAN CO INC COLEMAN CO INC Cupples Co Dietz (R E) Co Erro Mfg Co Guth (Edwin F) Co Justrice Mfg Co Manite Lamp F) Co Justrice Mfg Co Manite Lamp Co Samoro (Wm J) Iron Co rarker (Charles) Co Samcoe (Wm J) Iron Co Stewart Iron Works Co Inc Swain & Bridge

#### LANTERNS, ORNAMENTAL IRON

Stewart Iron Works Co Inc

#### LATCHES

LATCHES
 Champion Hardware Co Cinton Lock Co
 COBRIN (P & F) DIV AMERICAN HARD-WARE CORP
 DEXTER LOCK 00
 Duncan Shaw Corp
 EAGLE LOCK CO
 HAGEN (C) & SONS HINGE MFG CO
 Ideal Brass Works
 Korwood HARDwake MFG CO
 Fardware Co
 SAGER-BARNOWS DIV YALE & TOWNE MFC Hardware Co
 Skillman Hardware Co
 Technical Glass Co Ine
 Wagner Mig Co

#### LATCHES, GATE

Clinton Lock Co CORBIN (P & F) DIV AMERICAN HARD-WARE CORP WARE CORP Fiwale Equipment Mfg Co FRANTZ MFG CO HAGER (C) & SONS HINGE MFG CO Ideal Brass Works Inc Ideal Brass Works Inc Kees (F D) Mfg Co LOCKWOOD WARDWARE MFG CO McKinney Mfg Co NATIONAL BRASS CO NATIONAL MFG CO Norwalk Lock Co Reading Hardware Corp SAGER-BARROWS DIV YALE & TOWNE SAGEN-BARNUNS DIV T MFG CO SARGENT & CO Sharon Hardware Mfg Co Slaymaker Lock Co Standard Bronze Co STANLEY WORKS Starline Ine Wrightsville Hardware Co

#### LATCHES, MAGNETIC FOR **CUPBOARD DOORS** LABORATORY EQUIPMENT CORP.

#### LATH, COMPOSITION OR KEY

JOHNS-MANVILLE CORP Sommer Metalcraft Corp. Sommer Metalcraft Corp. SOUTHERN PINE LUMBER CO

LATH, GYPSUM CELOTEX CORP APRIL 1953

CERTAIN-TEED PRODUCTS COBP Grand Rapids Plaster Co NATIONAL GYPSUM CO Schumacher Wall Board Corp U S GYPSUM CO

#### LATH, INSULATING

 LATH, INSULATING
 ARMSTRONG CORK CO BUILDING MA-TERIALS DIV
 CELOTEX CORP
 CENTAIN-TEED PRODUCTS CORP
 FID-TEX Insulating Board Co
 FLUNTKOTE CO
 INSULITE DIV MINNESOTA & ONTARIO
 PAPER CO
 JOHNS-MANVILLE CORP
 Keystone Asphalt Products Co
 MATIONAL GYPSUM CO
 Platergrom Wall Board Co
 SIMPSON LOGGING CO
 U S Groupm Co U S Gypsum Co WOOD CONVERSION CO

#### LATH, METAL

Alabama Metal Lath Co Allen Steel Products BERGER MFG DIV REPUBLIC STEEL CORP BOSTWICK STEEL LATH CO CECO STEEL PRODUCTS CORP CECO STEEL PRODUCTS CORP Goldsmith Netal Lath Co INLAND STEEL PRODUCTS CO KEYSTONE STEEL WIRE CO PAIN METAL CO INC PINT METAL CO INC PINT METAL CO INC Sealon Products Inc Soule Steel Co TRUSCON STEEL CO U S GYPSUM CO U S GYPSUM CO Wheeling Corrugating Co WICKWIRE SPENCER STEEL DIV COLO-BADO FUEL & IRON CORP

#### LATH. WOOD

Anaconda Copper Mining Co Angelina County Lumber Co Brooks-Scanlon Inc Brooks-Scanlon Inc Coscade Lumber Co CONNOR LUMBER & LAND CO CONSOR LUMBER & LAND CO Diamond Match Co Dierks Lumber & Coal Co Fleishel Lumber Co Hines (Edward) Lumber Co Kinzua Pine Mille Co LONG-BELL LUMBER CO Mauk Seattle Lumber McCloud Lumber Co Neils (J) Lumber Co Rainy Lake Lumber Co Ltd RODDIS PLYWOOD CORP St. Paul & Tacoma Lumber Co WEYERHAEUSER SALES CO

#### ▶ LATHES

ATLAS PRESS CO Duro Metal Products Co ROCKWELL MFG CO DELTA POWER TOOL Wallace (J D) & Co WHITNEY (BAXTER D) & SON INC

#### LATHING, SUSPENDED CEIL-ING SYSTEMS

ARMSTRONG CORK CO BUILDING MA-TERIALS DIV Pittsburgh Steel Products Cor U S GYPSUM CO

#### LAVATORIES, CABINETS

Bennett Mfg Co FORMICA CO FORMICA CO Ideal Cabinet Co Standard Steel Cabinet Co TOLEDO DESK & FIXTURE CO

#### LEAD, RED

American Varnish Co Berry Brothers Inc Breinig Brothers Inc Berry Brothers Inc Breinig Brothers Inc Burdsal (A) Co Deroe & Raynolds Co Inc Eagle-Picher Co Gildden Co Hammond Lead Products Inc National Lead Co Pesales-Gaulhert Point & Varnish Co SHERWIN-WILLIAMS CO Twentieth Cortury Paint & Varnish Corp Vita-Var Corp

LEAD, WHITE Arme White Lead & Color Works American Varnish Co Anaconda Sales Co Burdsal (A) Co Devene & Raynolds Co Ine Du Pont (E 1) de Nemours & Co Ine

Eagle-Picher Co Fviton Sibley & Co Inc Fviton W P) & Co Inc Gillespie Varniah Co Gilden Co Hoboken White Lead & Color Works National Lead Co PITISUURGH PLATE GLASS CO SNERWIR-WILLIAMS CO Steelcote Mfg Co Twentieth Century Paint & Varnish Corp

#### LEVELING, WALL, MATERI-ALS FOR

Reardon Co Tamms Industries Inc

#### LEVELS, CARPENTER'S MASON'S

BOSTROM BRADY MEG CO BOSTROM BRADY MFG CO Brunson Instrument Co Disaton (Henry) & Sons Inc Empire Level Mrg Co Goldhlatt Tool Co Goldhlatt Tool Co Goldhlatt Tool Co Goldhlatt Co Ince Hall Level & Mrg Works Hydrolevel International Mrg Co KEUFFEL & ESSER CO LEVELALL LEVELALL Mayes Brothers Tool Mfg Co Millers Falls Co Ox-Wall Tool Co Peerless Level & Tool Co SCHARF (J H) MFG CO Schulter Land Land Schultes Level Inc SIMPLEX LEVEL CO Singer-Kennedy Corp STANLEY TOOLS DIV STANLEY WORKS Stevens (E A) Level Co WARREN-KNIGHT CO

#### **LIGHTING PLANTS**

ALLIS-CHALMERS MFG CO Benjamin Electric Mfg Co Briggs & Stratton Corp Buda Co Buda Co Continental Motors Corp Eagle Electric Mfg Co Inc Fairbanks Morse & Co Gemeral Electric CO Apparatus Dept Guth (Edwin F) Co HOMELITE CORP Johnson Motors Die Outboard Marine & Mfg Co Engineering Co 87. Kato Engineering Co KOHLER CO Onan (D W) & Sons Inc Pheips Power & Light Co Pioneer Gen-E-Motor Corp Ready-Power Co Universal Motor Co WESTINGHOUSE ELECTRIC CORP WINDEERER Com Wincharger Corp Wind (Jacob) Electric Co Ine Winpower Mfg Co

#### LIGHTS, FLUORESCENT

Bryant Electric Co Cupples Co Curtis Lighting Inc Eagle Electric Mfg Co Inc GENERAL ELECTRIC CO Guth (Edwin F) Co Long (W H) Co Metaleraft Screen Co Metaleraft Screen Co MIAMI CABINET DIV PHILIP CAREY MFG C.0 Superior Plastics Div Commonwealth Plastics WESTINGHOUSE ELECTRIC CORP

#### LIGHTS, SPOT & FLOOD GENERAL ELECTRIC CO APPARATUS DEPT Haledy Electronics Co Pyle-National Co WESTINGHOUSE ELECTRIC CORP

LIME, FINISHING CELOTEX CORP CERTAIN-TEED PRODUCTS CORP Fairmont Wall Plaster Co Gibsonburg Lime Products Co Kelley Island Lime & Transport Co Keystone Lime Work Inc LOUISVILLE CEMENT CO INC Marblehead Lime Co Marblehead Lime Mission Lime Products Corp MATIONAL GYPSUM CO National Lime & Stone Co OHIO HYDRATE & SUPPLY CO Stendard Lime & Stone Co

US GYPSUM CO Washington Brick & Lime Co Western Lime & Cement Co Woodville Lime Co

LIME, HYDRATED CELOTEX CORP

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

CERTAIN-TEED PRODUCTS CORP CERTAIN-TEED PRODUCTS COOP Chicago Fire Brick Co Corson (G & W H) Inc Gibsonburg Lime Products Co Kelley Island Lime & Transport Co Keystone Lime Works Inc LOUISVILLE CEMENT CO INC Marblehead Lime Co Mission Lime & Stome Co OHIO HYDRATE & SUPPLY CO Biverton Lime & Stome Co Inc Standard Lime & Stome Co U S GYPSUM CO Warner Co Washington Brick & Lime Co Woodwille Lime Co

#### LIME, MASON'S

Carney Co Inc CERTAIN-TEED PRODUCTS CORP CENTAIN-TEED PRODUCTS COM Gibsonburg Line Froducts Co Keltey Island Lime & Transport Co Keystone Lime Works Inc LOUISVILLE CEMENT CO INC Marblehead Lime Co NATIONAL GYPJUM CO North American Comment Com North American Coment Corp OHIO HYDRATE & SUPPLY CO Riverton Lime & Stone Co Luc Standard Lime & Stone Co U S GYPSUM CO Warner Co iner Co

#### LIME. PEBBLE

Kelley Island Lime & Transport Co LOUISVILLE CEMENT CO INC Marblehead Lime Co Mission Lime Products Corp NATIONAL GYPSUM CO U S GYPSUM CO

#### LIME, QUICK

Corson (G & W H) Inc Gibsonburg Lime Products Co Kelley Island Lime & Transport LOUISVILLE CEMENT CO INC Marblehead Lime Co Mission Lime & Stone Co National Lime & Stone Co - 60 National Lime & Stone Co OHIO HYDRATE & SUPPLY CO Standard Lime & Stone Co U S GYPSUM CO Warner Co Warner Co Western Lime & Cement Co Woodville Lime Co

LINING, CLOSET, CEDAR

P LINNING, CLOSEI, CED Actas Plywood & Venever Co BRADLEY LUMBER CO OF ARK BROWN (SEORGE C) & CO INC Codar-Lux Products Co Inc Coddington (E D) Mfg Co Fordyre-Crossett Lumber Co Frost Lumber Industries Inc Osage Products Co Rustic Furniture Co Inc Trina Cithur-Ardwood Lumber Co WeyERHAEUSER SALES CO

#### LINING, FLUE

Arme Brick Co Alliance Clay Products Co American Vitrified Products Co Bowerston Shale Co Cannelton Sewer Pipe Co Clargo Pire Brick Co Clay City Pipe Co Clay City Pipe Co Columbia Pipe Co CONDENSATION ENGINEERING CORP Columbia Pipe Co ComberSarion EngineEring Con Deverlow Tion EngineEring Con Deverlow Town Star Co Dicker (W S) Clay Mig Co Dicker (W S) Clay Mig Co Evans Pipe Co Firen Co Fine Co Fine Co Fine Co Herito Co Mexico Befractories Co Millwater Clay Products Co Williams-Wallace Co

**LINOLEUM** 

ARMSTRONG CORK CO BIRD & SON INC Bonañde Mills Inc Congoleum-Nairn Inc Pabce Products Inc Sloane-Blabon Corp

#### LINTELS, STEEL

BENNETT-IRELAND INC BERGER MFG DIV REPUBLIC STEEL CORP BUILDERS MFG CO

Consolidated Tron-Steel Mfg Co Donley Brothers Co Galariel Steel Co Kewartes de Go Maiter For Competent Co Competent Co Superior FixePuace Co Superior FixePuace Co Superior FixePuace Co Yesto Steel Products Co Vento Steel Products Co INC

#### LOADERS, BUCKET

Brady Conveyors Corp DEARBORN MOTORS CORP. Fairfield Engineering Co Haiss (George) Mfg Co Div Pettibone Mul-liken Corp Hyster Co JAEGER MACHINE CO Link-Belt Co Little Giant Products Inc Markroy Co Nelson (N P) Iron Works OLIVER CORP

#### LOCK MORTISING MACHINES Slaymaker Lock Co

BDICE-CRANE CO Greenlee Brothers WALL TOOL CO WALL TOOL CO Oliver Mashinery Co PORTER-CABLE MACHINE CO STANLEY ELECTRIC TOOL DIV STANLEY WORKS Wallace (J D) & Co

#### **LOCKERS, STEEL**

All Steel Equipment Co BERGER MFG DIV REPUBLIC STEEL CORP Lyon Metal Froducts inc Precision Equipment Co Red Tiger Products Inc Smith (F P) Wire & Iron Works Inc Standard Equipment Co Universal Steel Equipment Corp

### ▶ LOCKERS, WOOD Cole Mfg Co CURTIS COS INC Heller (W C) & Co

LOCKS, DOOR PLOCKS, DUUK ADAMS-RITE WFG CO ALLITM-PROBUTY INC Arrow Lack Corp Best Universal Lack Co Inc Champion Hardware Co Champion Hardware Co Cinton Lack Co COBEIN (P & F) DIV AMERICAN HARD-WARE COMP. MK Co WARE CORP Detroit Hardware Mfg Co DEXTER LOCK CO ool Co Dieco Machine Tool Co Duncan Shaw Corp EAGLE LOCK CO EARLE HARDWARE MFG CO Engineered Products Co Fiwale Equipment Mfg Co FRANTZ MFG CO FRANTZ MFG CO Genseo Tool Div General Steel Warehouse Co Harloe Products Corp Harris Inc Harvard Lock Co Hollymade Hardware Mfg Co-Hunter Teol Co Ideal Brass Works Inc INDEPENDENT LOCK CO Ives (II B) Co KWIKSET SALES & SERVICE CO La Belle Industries Inc Lawrence Brothers LOCKWOOD HARDWARE MFG CO McKinney Mfg Co Milwaukee Stamping Co NATIONAL BRASS CO NATIONAL BRASS CO NATIONAL LOCK CO NATIONAL MFG CO Newell Mfg Co New Mfc Co Newell Mfg Co Ney Mfg Co Norwalk Lock Co Div Segal Lock & Hardware Co Oley Products Inc Pacific Plastic & Mfg Co Parker (S) Hardware Mfg Corp. Parkyn Ltd n Ltd sty Co Inc Hardware Co Penn Petha Individuale Co Petha Individuale Corp Breese Padlock Co RICHARDS-WILCOX MFG CO RUSSELL & ERWIN DIV AMERICAN HARD-WARE CORP Safe Padlock & Hardware Co SAFE CORP Safe Padheak & Hardware Co Safe Padheak & Hardware Co SARGENT & CO SCHLAGE LOCK CO SCHLAGE LOCK CO SchLage & Hardware Co Inc Shillman Hardware Mfg Co Shillman Hardware Mfg Co Standard Bronze Co STERLING HARDWARE MFG CO Superior Plastics Div Commonwealth Plastics Ine Taylor Lock Co Technical Glass Co Ine

D-28

Vimear Sales Co WESTWOOD NEC CO

#### LOCKS, PADLOCK

Best Universal Lock Co Chicago Lock Co CORBIN (P & F) DIV AMERICAN HARD-WARE CORP Dudley Lock Corp EAGLE LOCK CO EAGLE LOCK CO Firale Equipment Mfg Co Gougler (C L) Co Lock Div Illinois Lock Co INDEPENDENT LOCK CO Johnson Fare Rox Co LOCKWOOD HARDWARE MFG CO Master Lock Co Norwalk Lock Co Div Segal Lock & Hardware Co

P LOMDER, DELCH BRADLEY LUMBER CO OF ARK BRUCE (E L) CO CROSSETT LUMBER CO FAIR (O L) LUMBER CO LONG-BELL LUMBER CO MENGEL CO PARKAY INC Normale Lore of the index Co (S) Hardware Co Hardware Co Burger Co Ware Corp Reme Padlock & Hardware Co SACER-BARROWS DIV YALE & TOWNE MFG CO SARGENT & CO Segal Lock & Hardware Go Inc

#### LOCKS, TUBULAR

 LOCKS, TUBULAR

Arrow Lock Corp

 East Universal Lock Co
 Chesler (J) & Sona Ine
 Cillaton Lock Co
 Corpelie (P & F) DIV AMERICAN MARD WARE CORP
 DEXTER LOCK CO
 DEXTER LOCK CO
 Herder Products Lorp
 Hollymade Hardware Co
 National Hardware Co
 Norwalk Lock Co
 Cillaton Lock
 Cillaton Lock Co
 C LUMBER, CEDAR, RED, RUSSELL & ERWIN DIV AMERICAN HARD-WARE CORP Bafe Padlock & Hardware Co SAGER-BARROWS DIV YALE & TOWNE MFG CO SARGENT & CO SCHLAGE LOCK CO SCHLAGE LOCK CO SCHLAGE LOCK CO Technical Glass CO YALE & TOWNE MFG CO HARDWARE DIV

#### LOG CABINS Rustic Furniture Co Inc

▶ LOGS, FIREPLACE, GAS & ELECTRIC HEATILATOR INC.

#### ▶ LOUVERS AIR CONTROL PRODUCTS INC CHELSEA FAN & BLOWER CO MIAMI CABINET DIV CAREY (PHILIP) MFG CO Midget Louver Co Reed Unit-Fans Inc.

#### **LOUVERS, ATTIC** VENTILATING

AIR CONTROL PRODUCTS INC Steel Products an Sheet Metal Works Badger Corrugating Co BOSTWICK STEEL LATH CO CARR ADAMS & COLLIER CO CECO STEEL PRODUCTS CORP Clay Equipment Corp Compa Miracle Products CURTIS COS INC Donley Rest Donley Brothers Eagle-Picher Co Edwards Mfg Corp Fordyce Crossett Lumber Co GREGG & SON INC Harris Inc Hemphill (A D) Co Holm's Mfg Co of Ohio Home Comfort Mfg Co HOUGH SHADE CORP Ideal Co Illinois Zine Co INLAND STEEL PRODUCTS CO KEWANEE MFG CO Klauer Mfg Co Kool-Air Engineering Co LESLIE WELDING CO te fa

WEYERHAEUSER SALES CO LUMBER, CYPRESS BRADLEY LUMBER CO OF ARK BRUCE (E L) CO CROSSETT LUMBER CO LONG-BELL LUMBER CO MENGEL CO SOUTHERN PINE LUMBER CO LUMBER, FIR, DOUGLAS

WESTERN

Louver Mfg & Supply Marquart Millwork Co Midget Louver Co Morgan Sash & Door Co MiCHOLS WIRE & ALUMINUM CO

Cabinet Co

arker (S) Hardware Mfg oach & Musser Co ock Island Millwork Co Hardware Mfg Corr

Rudeen (N H) Co SHEPLER MFG CO

Swartwout Co

Vimcar Sales Co Webb Mfg Co Wollaeger Steel Corp

LUMBER. BEECH

LUMBER, BIRCH CONNOR LUMBER & LAND CO PARKAY INC RODDIS PLYWOOD CORP Williams-Browpell Inc

arker

ASSOCIATED PLYWOOD MILLS HARBOR PLYWOOD CORP LONG-BELL LUMBER CO Simpson Logging Co U S PLYWOOD CORP WEYERHAEUSER SALES CO

LUMBER, GUM A LUMBER, GUM ATLAS PLYWOOD CORP BRADLEY LUMBER CO OF ARK BRUCE (E L) CO CROSSETT LUMBER CO HIGGINS INC LONG-BELL LUMBER CO MENGEL CO SOUTHERN PINE LUMBER CO

LUMBER, HEMLOCK, WESTERN BRADLEY LUMBER CO LONG-BELL LUMBER CO SIMPSON LOGGING CO WEYERHAEUSER SALES CO

#### LUMBER, LARCH, WESTERN WEYERHAEUSER SALES CO

LUMBER, MAPLE BRUCE (E L) CO CONNOR LUMBER & LAND CO LONG-BELL LUMBER CO MENGEL CO PARKAY INC RODDIS PLYWOOD CORP

#### LUMBER, OAK, RED AND WHITE

WITHIE BRADLEY LUMBER CO OF ARK BRUCE (E L) CO CROSSET LUMBER CO FAIR (D L) LUMBER CO LONG-BELL LUMBER CO MENGEL CO PARKAY INC RODDIS PLYWOOD CORP SOUTHERN PINE LUMBER CO

LUMBER, PECAN BRADLEY LUMBER CO OF ARK CROSSETT LUMBER CO MENGEL CO SOUTHERN PINE LUMBER CO

# LUMBER, PINE, PONDEROSA LONG-BELL LUMBER CO Oregon Lumber Co WEYERHAEUSER SALES CO

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

LUMBER, PINE, SUGAR ATLAS PLYWOOD CORP LONG-BELL LUMBER CO

LUMBER, PINE, WHITE, IDAHO

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WEYERHAEUSER SALES CO

LUMBER, PINE, WHITE, NORTHERN

CONNOR LUMBER AND LAND CO LONG-BELL LUMBER CO RODDIS PLYWOOD CORP WEYERHAEUSER SALES CO

LUMBER, PINE, YELLOW, SOUTHERN

SUUINERN BRADLEY LUMBER CO OF ARK BRUCE (E L) CO CROSSETT LUMBER CO LONG-BELL LUMBER CO Nengel CO INC Southern Pine Lumber CO

LUMBER, POPLAR BRUCE (E L) CO FAIR (D L) LUMBER CO MENGEL CO PARKAY INC

LUMBER, REDWOOD PACIFIC LUMBER CO Simpson Logging Co

LUMBER, SPRUCE, SITKA ATLAS PLYWOOD CORP WEYERHAEUSER SALES CO

LUMBER, CREOSOTED & SALT TREATED

CROSSETT LUMBER CO FAIR (D L) LUMBER CO LONG-BELL LUMBER CO TIMBER STRUCTURES INC WEYERHAEUSEB SALES C

LUMBER, FLAMEPROOF CROSSETT LUMBER CO.

MAIL BOXES & DROPS

AIR CONTROL PRODUCTS INC Ajax Hardware Mfg Corp Allen Steel Products American Device Mfg C AUTH ELECTRICAL CO B & T METALS CO Champion Hardware Co Cipeo Corp COFFMAN (R G) CO INC Colling (George F) & Co COFFMAN (R G) CO INC Collins (George F) & Co Columbia Metal Box Co COBBIN (F & F) DIV AMERICAN HARD-WARE CORP Dexter LOCK CO Donley Brothers Erro Mic CO Ferro Mic Co Ferro Mic Co Ferro Mic Co Ferro Mic Co Harris Inc Bartis Inc S) & CO INC GETTY (H S) & CO INU-Harris Inc. INLAND STEEL PRODUCTS CO Ires (H B) Co LOCKWOOD HARDWARE WFG CO MATIONAL BRASS CO NATIONAL BRASS CO NATIONAL BRASS CO Partice (S) How Mfg Corp Penn-Greg Mfg Co Perfection Store Device Co Reading Hardware Corp Reflecto Letters Taware Reflecto Letters SAGER-BARROWS DIV YALE & TOWNE MFG CO SARGENT & CO SANGENI & CO Skillman Hardware Slaymaker Lock Co Sperti Faraday Inc Standard Bronze Co Po Ca Wiemann (Ernest) Iron Works YALE & TOWNE NFG CO

#### MANDRELS, SAW

P MANDKELS, SAW Beach Mfg Co Chase Turbine Mfg Co Clube Brothers Mfg Co Consolidated Machinery & Supply Co Ltd Corinth Machinery Co Countingham Machinery Corp Fay (J A: & Egan Co Filer & Stowell Co Huther Brothers Saw Mfg Co Ine Industrial Iron Works Lane Mfg Co Preseott Co Yates-American Machine Co

AMERICAN BUILDER

#### MANTELS, FIREPLACE

Burke Millwork Co Cole Mfg Co Co Montel Co Inc Columbia Mantel Co Inc CURTIS COS INC Farley & Loctscher Mfg Co GREGG & SON INC Huttig Mfg Co Ideal Co Marquart Millwork Co Morgan Co Morgan Co READVRULLT PRODUCTS CO Roach & Musser Co Snedaker (Frank C) & Co Inc.

#### MESH, WIRE

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AMERICAN STEEL & WIRE CO CECO STEEL PRODUCTS CORP CHASE BRASS & COPPER CO COLORADO FUEL & IRON CORP Columbia Steel Co CURTIS Steel Co KEYSTONE STEEL & WIRE CO KEYSTONE WIRE CLOTH CO Logan Co Inc Northwestern Steel & Wire Co Pioneer Co Pittsburgh Cond Data Bard Planeer Co Pittsburgh Steel Products Co REPUBLIC STEEL COMP Sheffield Steel Corp Smith (F P) Wire & Iron Works Southern Wire & Iron Works TENNESSEE COAL IRON & RR CO TRUSCON STEEL CO TRUSCON STELL CO Wheeling Corrugating Co Wickwing Brothers Inc WICKWIRE SPENCER STEEL DIV COLO-RADO FUEL & IRON CORP

#### METAL LATH MACHINES, CUTTER

Harvey Mfg Co Socitchfield Mfg Co

#### METAL SINK BOWLS

International Nickel Co Jamestown Metal Products Co Legion Stainless Sink Corp TRACY MFG CO DIV EDGEWATER STEEL

## MICROMETERS

Brown & Sharpe Mfg Co LUFKIN BULE CO Millers Falls Co Starrett (L S) Co

#### MIRRORS, BATHROOM

Bache (Semon) & Co Belknap Glass Co CAREY (PHILIP) MFG CO Conant Brothers Co Conant Brothers Co Conroy-Prough Glass Co COPCO STEEL & ENGINEERING CO Hagemann Cos Lue MIAMI CABINET DIV CAREY (PHILIP) MFG CO National Mirror Works MFG National Mirro Nurre Cos Inc (Charl Nurre Cos Inc Parker (Charles) Co PITTSBURGH PLATE GLASS CO Safetee Gl ss Co Standard Steel Cabinet Co Toledo Plate & Window Glass Co

#### MIRRORS, DECORATIVE & HOUSEHOLD

Acme Specialty Mfg Co Art Mirror & Glass Specialty Co Bache (Semon) & Co Belknap Glass Co Bennett Mfg Co BINSWANGER & CO Cadillac Glass Co Century Mirror Corp Conroy-Prough Glass Co Conroy-Frough Glass Co Dearborn Glass Co Forman-Ford & Co Fulter (W P) & Co Hagemann Cos Ine Hooker Glass & Paint Mfg Co LAWSON (F H) CO WIAMI GABINET DIV CAREY (PHILIP) WFG CO Minnfer, Products Co National Mirror Works Nutre Cos Ine Parker (Charles) Co PITTSRURGH PLATE GLASS CO Safetee Glass Co STANDARD BUILDING PRODUCTS CO Toledo Plate & Window Glass Co Tyler & Hippach Glass Co Warren Co

MIRRORS, TRANSPARENT LIBBEY-OWENS-FORD GLASS CO PITTSBURGN PLATE GLASS CO

MITER BOXES American Crayon Co

APRIL 1953

Empire Level Mfg Co MACKLANBURG-DUNCAN CO Millers Falls Co National Guard Products Bockford Mitre Box Co Selek (Walter E) & Co STANLEY TOOLS DIV STANLEY WORKS Union Hardware Co Youngstown Mfg Co

#### MODEL HOUSES, SCALE

Architectural Model Materials CURTIS COMPANIES INC Homes Center Jayline Mfg Co Inc Miniature Lumbercraft Co Miniature Lumbercraft Co Mitchell Models National Plan Service Inc.

## MOPS, ROOFING APPLICA-

TOR Algoma Mfg Co Cupples Co Graham (John H) Co Inc

#### MORTAR

American Fluresit Co Inc Huron Portland Cement Co Lasting Products Co MEDUSA PORTLAND CEMENT CO MEDUSA PUBLICARD CLAR National Lime & Stone Co Washington Brick & Lime Co What Cheer Clay Products Co

#### MORTAR BOXES

All-Steel Equipment Co Ine American Ladder Co American Sheet Metal Works American Steel Works BOSTWICK STEEL LATH CO Donley Brothers Essick Mfg Co Goldblatt Tool Co Heltzel Steel Form & Iron Co HERZER SUEEFFORM & HOR CO Jackson Mig Co KEWANEE MFG CO MULLER MACHINERY CO INC PRICE FIREPLACE HEATER & TANK CORP Richmond Engineering Co Inc Thermafio Metal Products Inc

#### MORTISERS, SASH PULLEY Oliver Machinery Co.

MORTISERS, VIBRATING BIT DE WALT INC WHITNEY (RAXTER D) & SONS INC

#### MOTORS, ELECTRIC

P MOIORS, ELECIRIC Abart Gear & Muchine Co ALLIS-CHALMERS MFG CO ATLAS PRESS CO Beach Mfg Co BoilCE-CRARE CO Century Electric Co DELCO APPLIANCE DIV GENERAL MOTORS CORP Diehi Mfg Co Electrical Dir Ringer Mfg Co EMESON ELECTRIC OF CO FASCO INDUSTRIES INC GENERAL ELECTRIC CO APPARATUS DEPT Hamilton Beach Co Div Scottil Mfg Co Kingston-Conley Div Hoover Co Leland Rifectric Co Magston-Conley Div noover C Leland Electric Co MALL TOOL CO Master Woodworker Mfg Co Peerless Electric Co Robbins & Myers Co Russell Electric Co Signal Electric Mfg Co SUTTON (C A) CORP Wagner Electric Corp WESTINGHOUSE ELECTRIC CORP

#### MOULDING, CONDUIT BASE

Ames Metal Moulding Co Inc Knaum Brothers Mfg Co NATIONAL ELECTRIC PRODUCTS CORP

#### MOULDINGS, HARDBOARD

A & F Tileboard Co Barcley Mfg Co Inc Barcley Mig Co Inc Gibbs Boardtile Corp MARSH WALL PRODUCTS INC Miratile Mfg Co PRESTILE MFG CO Roydale Building Products Corp TYLAC CO Wallace Mfg Co

# MOULDINGS, METAL

AETNA STEEL PRODUCTS CORP A & F Tilgboard Co Alabama Metal Lath Co ALLMETAL WEATHERSTRIP CO Alloy Trim Inc

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

Aluminum Co of America Aumerican Brass Co American Brass Co Ames Metal Moulding Co ARMSTRONG CORK CO BUILDING MA-TERIAL DIV Barelay Mfg Co Inc RENDIX MEG CO Blum (Julius) & Co Inc BOSTWICK STEEL LATH CO Num cinilial & co Inc BOSTWICK STEEL LATH CO Branc JG Co B & T METALS CO CECO STEEL PRODUCTS CORP CHASE BRASS & COPPER CO Checas NeteL PRODUCTS CORP CHASE BRASS & COPPER CO Checas NeteL PRODUCTS CORP Contente Inc Decortie Inc Decortie Inc Part Mathine Corp Goldsmith Metal Lath Co Greene MF Co Harvey Machine Co Inc Harron Zimmers Moulding Corp Gibles Boardreile Copp Einstein Contents Inc Kawee EC Co Kinkao STEEL PRODUCTS CO KAWEE CO Metal Tile Products Inc Metal Tile Products Inc Metal Tile Mfg Co National Guard Products National Auminum Co National Guard Products Co National Guard Products Co National Metal Co National Metal Co National Start Co National Metal Co National Metal Co NATIONAL GYPSUM CO National Metal Products Co PENN METAL CO INC Penn Supply & Metal Corp Pittsburgh Plate glass CO Pritis-Farrington Co PRESTILE MFG CO Protex Weatherstrip Mfg Co Pyramid Mouldinga Ine Pyramid Mouldinga Ine Pyramid Products Co Pranting Products Co Revere Copper & Brass Inc REVNOLDS METALS CO BUILDING PROD-UCTS DIV Roxdale Building Products Corp ST PAUL CORRUGATING CO ST PAUL COMMUNATION Samson Products Co Selck (Walter E) & Co Die Serrick Corp John Lees STEELCRAFT NFG CO Superior Vall Products Co Superior Vall Products Co S & W Moulding Co Trimedge Ince TRUSCOW STEEL CO TYLAC CO Inited Industries Inc U S GYPSUM CO U S FLYWOOD CORP Wallace MK CO. U S PLYWOUD war-Wallace Mfg Co Werner (R D) Co Ine Wheeling Corrugating Co Wollaeger Steel Corp Wooster Producta Ine Youngstown Mfg Co Ine

#### MOULDINGS, PLASTIC

BENDIX MFG CO Blum (Julius) & Co Inc B & T METALS CO Num (Junus) & Co Inc B 4 T METALS CO Chicago Wood & Plastic Products Commonwealth Plastic Inc Herron-Zimmera Moulding Co Imperial Molded Products Co MARSH WALL PRODUCTS INC National Aluminum Co Parker (8) Hardware Mg Corp Pressitic Encloyering Co Presstite Engineering Co PRESTILE MFG CO Skyline Industries Superior Plastics Div Commonwealth Plastics Inc 8 & W Moulding Co Wallace Mfg Co Wenter (R D) Co Inc Wooster Products Inc Yankee Tile & Fibre Mfg Co Youngstown Mfg Co Inc

#### MOULDINGS, WOOD

Aetna Plywood & Veneer Co Arkansas Oak Flooring Co BENDIX MFG CO Biles-Coleman Lumber Co Inc Blum (Julius) Co Inc BRADLEY LUMBER CO OF ARK BRADLEY LUMBER TO OF ARK Bradley Willer & Co BRUCE (E L) Co Brunks Millerork Co Cameron (William) & Co Ine Ideal Div CARR ADAMS & COLLIER CO Chicago Wood & Plastic Products Cole Mig Co Cook County Lumber Co Cromar Co CROSSETT LUMBER CO CURTIS COMPANIES INC Dargan Lumber Co Fordyce-Crossett Lumber Co Fords Comber Industries Inc General Panel Corp GEORGIA-PACIFIC PLYW00D CO GREGG & SON Heller (W C) & Co Hines (Edward) Lumber Co Huttig Mfg Co Huttig Mfg Co Ideal Company Keystone Frame & Mfg Co Kinzua Pine Mills Co Keystone Frame & Mfg Co Kinstan Pine Mills Co Lehwood Corp LowGe-BeLL LUMBER CO Marquart Millwork Co Marsh Wattle Panobucts INC Matsh Wattle Panobucts INC Mitchell Mouiding Co Morgan Sash & Door Co Northern Sash & Door Co Pacol American Lumber Cop Data (David) Moulding Corp PACIFIC LUMBER CO Flockring Lumber Co Seneda Lumber & Millwork Co Seneda Lumber & Millwork Co Shadowood Silerest Co Silcrest Co Smith (Ralph L) Lumber Co Smith (Balph L) Lumber Co Southern Lumber Co Spokane Sash & Doot\*Co Stiles (H A) Co Tibbals Flooring Co U S Mengel Plywoods Wastington Mfg Co Western Flore Mg Co Western Flore Mg Co Willamette Valley Lamber Co Willamette Valley Lamber Co Willamet K St Lumber Co Woodward Lumber Co

Keller Products Inc

#### NAIL PULLERS

Belden Machine Co Bridgeport Hardware Mfg Corp Crescent Tool Co Drew (C) & Co Inc K-D Mfg Co MARKWELL MFG CO Union Hardware Co Woodings-Verona Tool Works

#### NAIL SETS

P NAIL JEIS American Swiss File & Tool Ce Bridgeport Hardware Mfg Corp Brown & Sharpe Mfg Co Damascus Steel Products Corp Hood Brothers Marhuer Steel Products Ine Marhuer Steel Products Ine Millers Fails Co. Rainey-Tool Co STANLEY TOOLS DIV STANLEY WORKS Startett (L S) Co Syracuse Twist Drill Co Tuck Mfg Co Union Tool Co

NAIL & BOLT ANCHORS Devices Inc MOORE (GOODLOE E) 00

▶ NAILERS & TACKERS AUTO-

MATIC HANSEN (A L) MEG CO

#### **NAILING MACHINES**

Doig (W S) Inc Grammes (I, F) & Sons Inc HOLT MFG CO INDEPENDENT NAIL & PACKING CO

#### NAILS, ALUMINUM

NASSALL (JOHN) INC New Holland Metals Co NICHOLS WIFE & ALUMINUM CO Potts-Parrington Co REYNOLDS METALS CO BUILDING PROD-UCTS DIV

#### NAILS, COMMON

Alan Wood Steel Co AMERICAN STEEL & WIRE CO Angell Nail & Chaplet Co Atlas Tack Corp Atias Tack Corp Hambrick (Richard J) BERGER MFG CO DIV REPUBLIC STEEL CORF Rethichem Steel Co HOSTWICK STEEL LATH CO CHARGE BRASS & COPPER CO Columbia Steel Co Continental Steel Corp Continental Steel Corp Corperented Steel Corp Corperented Steel Co Creases Brass & Fin Co Eastern Nail Co

ELASTIC STOP NUT CORP OF AMERICA 60 Teinnist Mail Co INDEFENDENT NAIL & PACKING CO INDEFENDENT NAIL & PACKING CO JOMES & LAUGHLIN STEEL CORP KEYSTONE STEEL & WIRE CO Maze (W H) CO Mid-States Steel & Wire Co New Holland Metals Co NICHOLS WIRE & ALUMINUM CO Northwestern Steel & Wire Co Northwestern Steel & Wire Co Pittalung Steel Products Co REPUBLIC STEEL CORP REYNOLDS METALS CO BLDG PRODUCTS SECTION TENNESSEE COAL INON & RAILROAD CO Valentine Equipment Co Waah Company Ine Wickwire SPENCER STEEL DIV COLO-RADO FORTHER STEEL DIV COLO-RADO FUEL & IRON COPP Wilson Steel & Wire Co

#### NAILS, COPPER

Alan Wood Steel Co AMERICAN STEEL & WIRE CO Angeli Nati & Chaplet Co Atlan Fach Co Atlas Tack Corp CHASE BRASS & COPPER CO Columbia Steel Corp Columbia Steel Corp Continental Steel Corp Copperweld Steel Co Dickson Weatherproof Nail Co HASSALL (JOHN) INC INDEPENDENT NAIL & PACKING CO INDEPENDENT NALL & FRANKLOOD Steel & Wire Products Co TENNESSEE COAL IRON & RAILROAD CO TURNER & SEYMOUR MFG CO

#### NAILS, CUT

Alan Wood Steel Co CHASE BRASS & COPPER CO Continental Steel Corp Eastern Nail Co Maza (W H) Co TENNESSEE COAL IRON & RAILROAD CO Tremont Nail Co Wheeling Corrugating Co Wheeling Steel Corp Wickwire Brothers Inc.

#### NAILS, FLOORING

Alan Wood Steel Co AMERICAN STEEL & WIRE CO Bethlehem Steel Co Continental Steel Corp Copperweld Steel Co Coperweld Steel Co Crumar Co Incerence Valle Co Incerence Valle Co KEYSTONE STEEL & WIRE CO Mid-States Steel & WIRE Co Mid-States Steel & WIRE Co Northwestern Steel & WIRE Co Pittsburgh Steel Products Co REPUBLIC STEEL COM TENNESSEE COAL HON & RAILROAD CO Tremont Nail Co Valentine Equipment Co Winching Corrigating Co

#### NAILS, LATH

Alan Wood Steel Co AMERICAN STEEL & WIRE CO Corp stal Steel Co Lath Co Goldsmith Metal Lath Co KEYSTONE STEEL & WIRE CO Mid-States Steel & Wire Co Northwestern Steel & Wire Co PENN METAL CO INC TENNESSEE COAL IRON & RAILROAD CO nt Co Wickwire Bros Inc

#### NAILS, LEAD HEAD

AMERICAN STEEL & WIRE CO Bethlehem Steel Co Continental Steel Corp DENISTON CO Dickson Weatherproof Nail Co Independent Nail & Packing Co IntLAND STEEL PRODUCTS CO NEYSTONE STEEL & WIRE CO Nize IW HI Co Mid-States Steel & Wire KEYSTORE STELL Mid-States Stel & Wire Co Mid-States Stel & Wire Co NICHOLS WIRE & ALUMINUM CO Northwestern Stel & Wire Co REPUBLIC STEEL CORP TENESSEE COAL HON & RAILROAD CO Winston Corrugating Co

• NAILS, MASONRY AMERICAN STEEL & WIRE CO Badger Corrugating Co Badger Corrugating Co COLORADO FUEL & IRON CORP Continental Steel Corp Dickson Weatherproof Nail Co Hillwood Mfg Co INDEFENDENT NAIL & PACKING CO MOORE (GOODLOE E) CO Shedleld Steel Corp Star Expansion Products Co TENNESSEE COAL IRON & RAILROAD CO Tremont Nail Co

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#### NAILS, ROOFING

Alan Wood Steel Co AMERICAN STEEL & WIRE CO AMERICAN SIELL & HILL Atlas Tack Corp Bambrick (Bichard J) Bechlehem Steel Co CHASE BRASS & COPPER CO COLORADO FUEL & INON CORP Columbia Steel Co Continental Steel Corp Copperweld Steel Co Cupples Co DENISTUR CE Dickson Weatherproof Nail Co Edwards Mrg Co E G Building Fasteners Corp HASSALL (JOHN) INC INDEPENDENT NAIL & PACKING CO INLAND STEEL PRODUCTS CO JONES & LAUGHLIN STEEL CORP KEYSTONE STEEL & WIRE CO Mid-Statuss Steel & WIRE CO Mid-Status Steel & WIRE Co MICHOLS WIRE & ALUMINUM CO Northwestern Steel & WIRE Co ernroof Nail Co Northwestern Steel & Wife Co Pittsburgh Steel Products Co REPUBLIC STEEL CORP TENNESSEE COAL IRON & RAILROAD CO Valentine Equipment Co Wheeling Corrugating Co Wickwire Brothers Inc WICKWIRE SPENCER STEEL DIV COLO-RADO FUEL & IRON CORP Wilson Steel & Wire Co

#### NAILS, SCREW TYPE

Columbia Steel Co Continental Steel Corp Cupples Co DENISTON CO Weatherproof Nail Co G Building Fasteners Corp MASSALL (JOHN) INC Hillword Mfg Co Hillword Mfg Co INDEPENDENT NAIL & PACKING CO NICHOLS WIAE & ALUMINUM CO Northwestern Steel & Wire Co Pittshurgh Steel Products Co REPUBLIC STEEL CORP BEYNOLDS METALS CO BUILDING PROD-UCTS DIV Stronghold Screw Products To UCTS DIV Stronghold Screw Products Inc TENNESSEE COAL IRON & RAILROAD CO

#### NAILS, SELFLOCKING

E G Building Fasteners Corp Elastic Stop Nut Corp of America

#### NAILS, SHINGLE

Alan Wood Steel Co AMERICAN STEEL & WIRE CO Atlas Tack Corp Bethlehem Steel Co CHASE BRASS & COPPER CO COLORADD FUEL & IRON CORP Columbia Steel Co Continental Steel Corp Dickson Weatherproof Nail Co E G Building Fasteners Corp E G Building Fasteners Corp Elastic Ston Nut Corp of America INDEPENDENT NAIL & PACKING CO JONES & LAUGHLIN STEEL CORP KEYSTONE STEEL & WINE CO MICHOLS WIRE & ALUMINUM CO Northwestern Steel & WINE CO PITTSBURCH STEEL PRODUCTS CO REYNOLDS. METALS CO BUILDING PROD-UCTS DIV Sheffield Steel Corp Sheffield Steel Corp TENNESSEE COAL IRON & RAILROAD CO Wickwire Bros Inc Wilson Steel & Wire Co

• NAILS, WALLBOARD AMERICAN STEEL & WIRE CO Angell Nail & Chaplet Co HASSALL (JOHN) INC Maze (W H) Co Northwestern Steel & Wire Co REPUBLIC STEEL CORP Valentine Equipment Co Wickwire Brothers Inc

#### NAME PLATES

CORBIN (P & F) DIV AMERICAN HARD-WARE CORP LOCKWOOD HARDWARE MFG CO Turner Brass Works

#### ▶ NETTING, WIRE

AMERICAN STEEL & WIRE CO COLORADO FUEL & IRON CORP Continental Steel Corp CYCLONE FENCE DIV AMERICAN STEEL & WIRE CO Gilbert & Bennett Mfg Co Indiana Steel & Wing Co Indiana Steel & Wire Co KEYSTONE STEEL & WIRE CO Mid-States Steel & Wire Co Northwestern Steel & Wire Co Pittsburgh Steel Products Co

TENNESSEE COAL IRON & RAILROAD CO Wickwire Brothers Inc WICKWIRE SPENCER STEEL DIV COLO-RADO FUEL & IRON CORP

#### NIPPERS

P NIFICKS Champion-De-Arment Tool Co Damascus Stor Products Corp Love Mfg Co M & M Wire Clamp Co Peck Stow & Wilcox Co RED DEVIL TOOLS SARGENT & CO Start Brothers Bell Co Vaughan & Bushnell Mfg Co

 NOSINGS, METAL
ALLMETAL WEATHERSTRIP CO
American Mason Safety Tread Co
American Mason Safety Tread Co
American Mason Safety Tread Co
Bilm (Julias) Co Iae
Biraso Mig. Co
E 4 METALS CO
E 4 METALS CO
E 4 METALS CO
E 6 STEL PRODUCTS CORP
CMASE BRASS & COPPER CO
Decorite Ine
Ford Metal Moulding Corp
Kinked Industries Ince Ford Metal Moulding Corp Kinkeal Industries Inc-MACKLANBURG-DUWCAN CO MARSH WALL PRODUCTS INC Metal Trims MOORE (GOODLOE E) CO National Aluminum Co National Aluminum Co National Aluminum Co National Aluminum Co Press Verlage Aluminum Co Priss-Farington Co Pyramid Mouldings Inc Safe Trend Co afe Tread Co S & W Moulding Co Trimedge Werner (R D) Co Inc Wheeling Corrugating Co Wollaeger Steel Corp Wooster Products Inc Youngstown Mfg Co Inc

#### NUMBERS & LETTERS. LUMINOUS

Ellwood Co Greider (K H) Mfg Co Lumolite Corp

Lumolite Corp MACKLANBURG-DUNCAN CO Nu View House Number

#### NUMBERS & LETTERS. REFLECTING

Auto Sign Display Co MACKLANEURG-DUNCAN CO Reflecto Letters Co Slaymaker Lock Co Thomas & Associates Inc U S Lite-Bay Co

#### ▶ NUMBERS & LETTERS, TILE Cambridge Tile Mfg Co

#### NUMBERS & LETTERS, WOOD & METAL

G MELAL Aiax Hardware Mfg Corp Champion Hardware Co Cipton Lock Co CORBIN (P & F) DIV AMERICAN NARD-WARE CORP Erco Mfg Co Fiwale Equipment Co Gits Molding Corp Hartia Ine Gits Molding Corp Harris Inc Heller (W C) & Co Ideal Brass Works Inc Ingram-Richardson Mfg Co ldean Anton Mig Ingram-Richardson Mig Ives (H B) Company MACKLAMBURG-DUNCAN CO Matthews (James H) & Co McKinney Mig Co Matthews (James H) & Co McKinney Mig Co Matthews (James H) & Co Matthews (James Nelson-Harkins Industries Norwalk Lock Co Div Segal Lock & Hardware Co NUTONE INC Tenn Hardware Company Premax Products Div Chisolm-Ryder & Inc RUSSELL & ERWIN DIV AMERICAN HARD-WARE CORP Rustic Furniture Co Inc Safe Fadarck & Hardware Co SAGER-BARROWS DIV YALE & TOWNE MFG CO SAMGENT & CO SAMGENT & CO SAMGENT & CO SARGENT & CO Skillman Hardware Co Slagmaker Lock Co Spanjer Brothers Inc Standard Bronze Co Wellman Products Co

#### OFFICE MACHINES & EQUIPMENT

Addressograph-Multigraph Corp

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Ajax Time Stamp Co Autographic Register Co BERGER MFG CO DIV REPUBLIC STEEL CORP CONF CONF Burgess Co Inc Eurroughs Adding Machine Co Calculary Multipler Corp Clary Multipler Corp Dick (A B) Co Eurror Corp Elliott Addressing Machine Co Fertis Business Eugipment Inc Frider Calculating Machine Co Hamilton Autographic Begister Co Heyer Corp

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Frien Calculating Machine to Hamilton Autographic Begister Co Hamilton Autographic Begister Co Harrison Business Machines Corp International Business Machine Co Marchant Calculating Machine Co Mater Advesser Co Metakey Register Co Motore Automess Forms Inc Moore Basiness Patent Novelty Co Inc REMINGTON RAND INC SYSTEMS DIV Robotyper Corp SMITH (L C) & CORONA TYPEWRITERS SMITH (L C) & CORONA TYPEWRI INC Speed-O-Print Corp Standard Register Co SWIFT BUSINESS MACHINES CORP Thompson (O E) & Sons Todd Co Inc Tucker-Dorsey Mg Corp Twentleth Century Products Inc UARCO Inc Underwood Corp Vietor Addimg Machine Co Waddell Co Inc

#### OIL, LEAD MIXING

Breinig Brothers Inc Eagle-Picher Co Glidden Co National Lead Co Pabeo Products Inc PITTSBURGH PLATE GLASS CO

#### OIL, LINSEED

Archer-Daniels-Midland Co Bisbee Linseed Co Chi-Namel Paint & Varnish Co De Mert & Dougherty Fuller (W P) & Co Fuller (W P) & Co Gillespie Varnish Co Gilden Co Gordon (George C) Chemical Co Harrison Paint & Varnish Co Interstate Oil Co Kellogg (Spencer) & Sons Corp UINSEED Oil PRODUCTS CO Minnesota Linseed Oil Paint Co Moholie Paint Mfg Co National Lead Co PITTSBURGH PLATE GLASS CO SHERWIN-WILLIAMS CO SHERWIN-WILLIAMS CO Spencer-Kellogg & Sons Technical Oil Div South Tex Cotton Oil Co

#### **OUTLETS, ELECTRIC**

Arrow-Hart & Hegeman Electric Co Auth Electrical Specialty Co Bell Electric Co Benjamin Electric Mg Co BOSTWICK STEEL LATH CO BURNET CO BOSTWICK STEEL LATH CO Bryant Electric Co Cutler-Hammer Inc Donley Brothers Economy Fuse & Mfg Co Edwards Co Inc GENERAL ELECTRIC CO CONSTRUCTION MATERIALS DEPT Gits Molding Corp Hubbell (Harrey) Inc Merwin Mfg Co Pass & Seymour Sommer Metaleraft Corp Source D Co Square D Co Standard Mirror Co Weber Electric Co Wheeling Corrugating Co

#### OVENS, OUTDOOR & DUTCH

Donley Brothers Glascock Store & Mfg Co Hancock Iron Works Kraus (Walter S) Co MAJESTIC CO Mexico Refractories Co Outdoor Over FreeJace Co Outdoor Over FreeJace Co PRICE FIREPLACE MEATER & TANK CORP Western Foundry Co

#### PAINT APPLICATORS, **ROLLER, AIR PRESSURE**

Brown (W R) Corp Carlson (A B) & Co Central States Wallmaster Inc RED DEVIL TOOLS

#### PAINT SPRAY GUNS

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Binks Mfg Co Black Mfg Co Burgess Vibrocrafter Brown (W B) Corp Brunner Mfg Co Deming Co Dewilbiss Co crafters Inc. Deming Co Devidiss Co Device & Raynolds Inc Electric Sprayit Co Empire Varnish Co Hudson (H D) Mfg Co Lowell Mfg Co Macleod Co Metallizing Engineering Co Inc PitTSBURCH PLATE GLASS CO PitTSBURCH PLATE GLASS CO PitTable Electric Tools Inc Selleo Corp U S Air Compressor Co

#### PAINT AND VARNISH RE-MOVERS

Acme White Lead & Color Works American Marietta Co American Varnish Co Bengal Co Berry Bothers Inc Berry Brothers Inc Boston Varnish Co Boyer Chemical Laboratory Co Boyle-Midway Inc Breinig Brothers Inc Briggs-Maroney Co Inc Publics: Products Briggs-Maroney Co Ine Builders Products CABOT (SAMUEL) INC Chemical Supply Co Chicago Bronze & Color Works Chi-Namel Paint & Varnish Co Chirsty Co Ine Coustures Glue Co Cook Paint & Varnish Co Devne & & Kornolds Inc Devne & & Kornolds Inc Devne & & Kornolds Inc Petro Shley & Co Ine Fullor (W P) & Co Glidden Company Fuller (W F) & co Glidden Company Harrison Paint & Varnish Co Harnes Products Co Industrial Chemical Development Corp Keystone Varnish Corp Lowelco Lowe Brothers Co Martin-Senour Co Masury (John W) & Son Inc Minnesota Paints Inc Murphy Finishes Corp Galite Products Inc O'Brien Corp O'Brien Corp Patterson-Sargent Co PITTSBURGH PLATE GLASS CO Pratt & Lambert Inc Savogran Co Schalk Chemical Co Seidlitz Paint & Varnish Co Sheffield Bronze Paint Corp SHERWIN-WILLIAMS CO SHERWIN-WILLIAMS CO Stanley Chemical Co Steelote Mfg Co Tamus Industries Ine Trueson Laboratories Ine Trueson Laboratories Ine Trueson Laboratories Ine Trueson Laboratories Ine Valentine & Co Ine Vila-Var Corp Wadswarth-Howland & Co Wilson Imperial Co Woodfluishing Products Co

#### PAINTS, ACIDPROOF

Abesto Mfg Corp Boston Varnish Co Chicago Bronze & Color Works Devoe & Raynolds Inc Du Pont (E I) de Nemours & Co Elliott Paint & Varnish Co Glidden Co Horn (A C) Co Inc Lithogen Corp Lowebco Inc Lowe Brothers Co MOORE (GOODLOE E) CO Nubem Products Corp D'Brien Corp Paheo Products Inc Patterson-Sargent Co Patterson-Sargent Co RUBEROID CO Sapolin Paints Co Ine Seaboard Plastics Corp SHERWIN-WILLIAMS CO Sonneborn (L) Sons Ine Someborn (L) Sons Inc Specia Universal ATLAS CEMENT CO UNIVERSAL ATLAS CEMENT CO Steriorte MIg Co Steriorte MIg Co Steriorte MIg Co Stratuce Mig Co Truscon Laboratories Div Devoe & Barnolds PAINTS, COLDWATER & Ine Valentine & Co Ine Vita Var Corp Wilbur & Williams Co

#### PAINTS, ALUMINUM **BRONZE & GOLD**

Abesto Mfg Corp Aluminum Co of America Aluminum Industries Inc Aree Co Arnesto Paint Co Inc Boston Varnish Co Chicago Paints Inc Cook Paint & Varnish Co

Crescent Bronze Powder Co Devoe & Raynolds Inc Eagle-Picher Co Elliott Paint & Varnish Co FLINTKOTE CO FLINTKOTE CO Glidden Co Hoboken White Lead & Color Works Ine Horn (A. C) Co Ine Lockerr Co Lowe Brothers Co Lowe Brothers Co Masury (John WL& Son Masury (John WLATE GLASS CO HITSBURGH FC CO Seahoard Plastics Corp Seidlitz Paint & Varnish Co Sheffield Bronze Paint Corp SHERWIN-WILLIAMS CO Sheve Juc Shevelout Mfg Co Truscon Laboratories Div Devoe & Raynolds Inc Wilbur & Williams Co

#### PAINTS, ASPHALT

P FAINIS, ASPTIALI Abeta Mfg Corp Akron Paint & Varnish Co American Asphalt Paint Co American Asptalat Roof CORP American Varnish Co American Varn BARRETT DIV ALLIED CHEMICAL CO Boston Varnish Co Breining Brothers Inc CALBAR PAINT & VARNISH CO CAREY (PHILIP) MFG CO Ceresit Waterproofing Corp Cheeseman-REliot Inc Chicago Bronze & Color Works Dad & Lad Co Devoc & Raynolds Inc Elioit Paint & Varnish Co Elliott Paint & Varnish Co Evercrete Corp FLINTKOTE CO Ford Roofing Products Co Forman-Ford & Co Fors Paint Co Inc Gibson-Homans Co Foy Paint Co Inc Gilson-Homans Co Glidden Co Harbil Mfg & Inc Horn (A C) Co Inc Illinois Bronze Powder Co JOHNS-MANVILLE CORP Lehon Co Worder Einiches Com JOHNS MANVILLE CORP Lehon Co Murryby Finishes Corp MATIONAL GYSUM CO O'Brien Corps Pather (Finish & Sons Co Pecora Paint Co INC PECORA PAINT CO INC PITTSBURGH PLATE GLASS CO Quigley Co Inc RUBEROID CO Reaboard Plattes Corp Reaboard Plattes Corp Reaboard Plattes Corp Reidhitz Paint & Varnish Co Sheavin WilkLlaws CO Spray-D-Band Co STEAMIN-TILLIANS CU Stray-D-Bond Co Steelcote Mfg Co TEXAS CO Truccon Laboratories Div Devoe & Raynolds Truscon Laboratories Div Devoe & Raynold Co Twentleth Century Paint & Varnish Corp United Gisonite Laboratories U S Gutta Percha Paint Co Verfex Sales Co Inc Vita-Var Corp Wilbur & Williams Co

### PAINTS, AWNING

Aridye Corp Astrup Co CUPRINGL DIV DARWORTH INC Deros & Raynolds Inc King (E & F) Co Inc Paheo Products Inc PitTsBURGH PLATE GLASS CO Textile Colors Dir Interchemical Corp

PAINTS, CEMENT AMERICAN STA-DRI CO Armor Laboratories Inc Breinig Brothers Pratt & Lambert Inc lex Produ Spray-O-Bond Co UNIVERSAL ATLAS CEMENT CO

# CASEIN

CASEIN Abesto Mfg Corp Acme White Lead & Color Works Alabastine Paint Products Div Chicago Bronze & Color Works Furdsal (A) Co CABOT (SAMUEL) INC Chi-Namel Paint & Varnish Co Chicago Bronze & Color Works Cook Paint & Varnish Co Devce & Reynolds Inc

Du Pont (E I) de Nemours & Co Ine Forton Sibley & Co Ine For Paint Co Ine General Paint Corp Glidden Co Harbil Mfg Co Ine Horn (A C) Co Ine MEDUSA PORTLAND CEMENT CO Minnesota Paints Ine Muraio Co Ine NationAl GYPSUM Co Parker (Ira) & Sons Co Pielan-Faust Paint Mfg Co Pielan-Faust Paint GLASS CO Reardon Co PHITSBURGH FLATE BEAM Reardon Co Rogers Paint Products Inc Sargent-Gerke Co Seidlitz Paint & Varnish Co SHERWIN-WILLIAMS CO Standard Varnish Works Tamms Industries Inc Toch Brothers Inc Tamms Industries Inc Toch Brothers Inc U \$ GYPSUM CO Vita-Var Corp Wesco Waterpaints Inc Wilbur & Williams C Woodville Lime Co Co

#### PAINTS, CONCRETE, BRICK, STUCCO

STUCCO Abesto Mfg Corp Acrew White Lead & Color Works Akron Paint & Varnish Co Alabastine Paint Products Div Chicago Bronze & Color Works American Painterstit Co Inc American Painterstit Co Inc American Marietta Co American Marietta Co American Jurestit Co Inc American Jurestit Co Inc Boaton Varnish Co Britage Maroney Co Inc Buile Ridge Taic Co Inc Budsal Ca Co CABOT (SAMUEL) INC CABOT (SAMUEL) INC CALERE PAINT & VARNISH CO CALERE CALBAR PAINT & VARNISH CO CARTER-WATERS CORP Celadri Corp Cernis Co Cernis Co Cersis Waterproofing Corp Checase Bronze & Color Works Coddington (E D) Mfg Co Colorereit Industries Inc Colorereit Industries Inc Du Pont (E D) de Nemours & Co Inc Enliot Paint & Varnish Co Empire Varnish Co Empire Varnish Co Empire Varnish Co Evererete Corp Felton Sibley & Co Inc Flexor (Bring) Co Inc Fox (M Eving) Co Inc Fox KAY-TITE CO KENITEX CORP Keystone Paint & Varnish Corp Lasting Products Co Lithogen Corp Lithogen Corp Lowebco Inc Lowe Brothers Lowe Brothers Masury (John W) & Son Ine MEDUSA PORTLAND CEMENT CO Minnesota Paints Inc Minnesota Paints Inc Moore (Benjamin) & Co MOORE (GOODLOE E) CO Muralo Co Inc NATIONAL GYPSUM CO O'Brien Corp O'Brien Corp Patterson-Sargent Co PECORA PAINT CO INC Peerless Cement Corp Peenle Trete Products Co Phelan-Faust Paint Mfg Co PitTSBURGH PLATE GLASS CO Plasti-Kote Inc Preservative Paints Co Prisma Products Inc Reardon Co Prima Products Inc Reardon Co Rochond Products Co Rohloff & Co Seidlitz Paint & Varnish Co SHERWIN-WILLIAMS CO Smooth-On Mfg Co Sonneborn (L) Sons Inc Smonthom (Li Kons Inc Sorret-O-Round Co Stantaar Der Stantaar Der Stantaar Co Stalisan Co Sulface Froitection Co Sulface Froitection Co Tamas Industries Inc Tremco Mis OFT LAND CEMENT DIV CENTRAT PORTLAND CEMENT DIV Therate Horitz Statistics Dir Devoc & Raynolds Therate John Cement Co Turner Laboratories Dir Devoc & Raynolds Therate John Cement & Varnish Corp U's Gutta Percha Paint Co Ciddresses Start on Page D-51 Entifications Start on Page D-52

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U S GYPSUM CO Vita-Var Corp Vorlac Co Waterlox Div Emptre Varniah Co Weseo Waterpaints Wilbur & Williams Co Woodville Linue Co Wurdack Chemical Co X-Fando Corp

#### ▶ PAINTS, CREOSOTE Derge & Raynolds Inc

#### PAINTS, DRY KILN

American Varnish Co Black Cat Corp Breinig Brothers Ine Devoce & Raynolds Ine Dewatex Mfg Corp Harbil Mfg Co Ine Harbil Mig Co Ine Honn LA C' Co Ine Mobile Paint Mig Co More Dry Kiln Co Murphy Finishes Corp Parker (1ra) & Sons Co PITTSBURGH PLATE GLASS CO PITTSBURGH PLATE GLASS CO E S Guits Perela Paths Co Willow & Williams Co

#### ▶ PAINTS, FUNGUS REPELLING

Abesto Mfg Corp CUPRINGL DIV DARWORTH INC Duront (E 1) do Nemours & Co Ine Elliott Paint & Varnish Co Glidden Co Allote Paint & Varnan Co Glidden Co Horn (A C) Co Ine Lowe Brothers Co Meta-Kote Corp O'Brien Corp Patterson-Sargent Co PITTSBURGH PLATE GLASS CO SHERWIN-WILLIAMS CO SHERWIN-WILLIAMS CO Truscon Laboratorics Div Devoe & Reynolds Cover Corp. Wilbur & Williams Co Wood-Treating Chemicals Co Wurdack Chemical Co

#### ▶ PAINTS, INSECT KILLING Superior Paint & Varnish Works

#### PAINTS, LEAD

▶ PAINTS, LEAD Arme White Lead & Color Works Akron Paint & Varnish Co American Marietta Vo American Varnish Co Baker Paint & Varnish Co Baker Paint & Varnish Co Baker Paint & Varnish Co Briening Brothers inc Briggs-Maroney Co Inc Cheeseman-Fellot Vo Inc Dewatex Mfg Corp Fuller (W P) & Co Gilleopie Varnish Co Harbfil Mfg Co Inc Murphy Finishes Corp National Lead Co O'Brien Corp National Leau Co O'Brien Cop Parker (Ira) & Sona Co Preservative Paints Co Bockford Paint Mfg Co Sellers Paint & Varnish Co Sonneborn (L) & Sons Lo Varnish Corp Twentieth Century Paint & Varnish Corp

#### PAINTS, LEAD IN OIL

Acme White Lead & Color Works Arnesto Paint Co Ine Boston Varnish Co Devoe & Raynolds Ine Eagle-Picher Co Elliott Paint & Varnish Co Bildden Co Hoboken White Lead & Color Works Horn (A C) Co Inc Lowe Brothers Co National Lead Co National Lead Co Pabeo Products Inc PITTSBURGH PLATE GLASS CO SHERWIN-WILLIAMS CO SHERWIN-WILLIAMS CO Valentine & C Vita-Var Corp

#### PAINTS, MARINE

Mobile Paint Mfg Co Murphy Finishes Corp O'Brien Corp Pabco Products Inc Parker (Ira) & Sons Co Patterion-Sargent Co Pitterion-Sargent Co Piatta Kote Inc Pratt & Lambert Inc Sargent-Gerke Co Sargent-Gerke Co Swiditz Punt & Varniah Co SNERWIN-WILLIAMS CO Steelcote Mfg Co Tremco Mfg Co Valentine & Co Inc Vila-Var Corp Wilbur & Williams Co

#### PAINTS, METALLIC

Akron Paint & Varnish Ce Alabastine Paint Products Div Chicago Bronze & Color Works Aluminum Industries Inc American Marietta Co American Varnish Co Aluminum functories tore American Marietta Co American Marietta Co American Marietta Co Calladar PAINT de Varniale Co Calladar PAINT de Varniale Co Calladar PAINT de Varniale Co Concos Entrait & Colore Works Commonwealth Varniale Co Benera & Raynolds Inc Du Poot (E 1) de Nemours Co Ise Eagle-Pieter Co Elliott Paint & Varniale Co Entroit Paint & Varniale Co Entroit Paint & Varniale Co Entroit Paint & Varniale Co General Paint Corp Gillespie Varniale Co Harbil Mfg Co Koppet Co Ise Lowe Brothurs fo Monie Pait Mene Corp Patheo Products Inc Parter (Tra) & Sone Co Patterenon-Sargent Co Pielan-Faut Paint Mfg Co Pitati-Rote Inc Prats Ac Inc Prats Corp Stagent-General Paint Co Shoffield Roome Paint Co Shoffield Roome Paint Co Shoffield Roome Paint Co Ste Roya Paint Co Inc SHERWIN-WILLIAMS CO Sicea Rops Paint Co Ince Sicedits Paint & Varnish Co Sonneborr, U.I. & Sonse Ince Standard Industrial Products Ince Steeleote Mig Co Twentleth Century Paint & Varnish Corp United Gilsmite Laboratories U S Gutta Percha Paint Co Valentine & Co Ince Vila-Var Corp

#### PAINTS, OIL

Abesto Mig Corp Acme Quality Paints Acme White Lead & Color Works Akron Paint & Varniah Co Aknotine Paint Products Div Chicago Bronne & Color Weites Color Weites American Yarmiah Co American Yarmiah Co Aros Co Armstrong Paint & Varniah Werks American Varnish Co Arco Co Arco Co Armstrong Paint & Varnish Works Armstrong Paint & Varnish Works Armstrong Paint & Varnish Berry Bibliotes Co Bradley & Wrosman Co Central Paint & Varnish Works Chirago Paints Inc Chirago Paints Inc Chirago Paint & Varnish Co Devoc & Raynolds Inc Deinhin Paint & Varnish Co Devoc & Raynolds Inc Deinhin Paint & Varnish Co Devoc & Raynolds Inc Deinhin Paint & Varnish Co Devoc & Raynolds Inc Deinhin Paint & Varnish Co Eulorit Paint & Varnish Co Eulorit Paint & Varnish Co Fulter Co Feltor Sibley & Co Forman-Ford & Co For Paint Co Fuller (W P) & Co Inc Felton sibley & Ce Forman. Ford & Co Foy Faint Co Foy Faint Co Gilleroule Varnish Co Gilleroule Varnish Co Gilleroule Varnish Co Gindin Co Grand Hanilet Mir Co Hannt Mir Co Hannt Mir Co Hartison Point & Varnish Co Hartison Point & Varnish Co Hartison Point & Varnish Co Heath & Millian Mir Co Dir Gildden Ce Hobaken White Land & Color Works Ine Homa (A C) Co Ine Homa (A C) Co Ine Johnston (R F) Paint Co Keystone Varnish Co Keystone Varnish Co Keystone Varnish Co Keystone Varnish Co Kurfee (J F) & Co Ine Kurfees (J F) Paint Co LINSEED OIL PRODUCTS CO Lowe Brothers Co Lucas (John) & Co Marietta Paint & Color Co Martin-Senour Co Masury (John W) & Son Inc

McClaskey Varnish Co McMutry Mfg Co Michautry Mfg Co Minneota Linaeed Oil Paint Co Mionie Paint Mfg Co Moore (Benjamia) & Co Muralo Co Ince Murphoy Fluishes Corp National Lead Co Watalow Refe Co Patien (Trai & Boos Patter (Trai & Boos Patter (Trai & Boos Patter Co Peasles-Gaubier Paint & Varnish Co Ince PECDA PAINT CO Press Co Protise Varnish Co Sapolin Paints Inc Sargeut-Gerie Co Seabaard Plasties Corp Seedills Paints & Varnish Co Seemal Paint & Varnish Co Sewall Paint & Varnish Co SHERWIN-WILLIAMS CO SHERWin-WILLIAMS CU Sicca Soya Sales Co Sonneborn (L) Bonn Inc Standard Industrial Products Inc Standard Varnish Works Steekote Mfg Co STEELING PAINT & VARNISH CO STERLING PAINT & VARNISH CO Sullian Co Toch Brothers Inc Tremeo MF Co Truscon Laboratorics Div Devse & Raymolds Inc Twentieth Century Paint & Varnish Co U S Gutta Percha Paint Co Valentine & Co Inc Vila-Var Corp Wadsworth Howland & Co Wilbur & Williams Co Wilber (A) Co

#### PAINTS PLASTER

P FAINIS FLASIEI Alton Laboratories Ero-Ca-Do Ine Enterprise Paint Mfg Co Glastie Corp Losrebos Ine NATIONAL GYPSUM CO Reardon Co Sicca Soya Paint Co Ine Tamma Industries Ine Weaco Waterpaints

#### PAINTS, PLASTIC

Corrosite Corp GENERAL ELECTRIC CO CHEMICAL DEPT Plasti-Kote Inc U S GYPSUM CO

#### PAINTS, RUBBER BASE

Truscon Laboratories Div Devoe & Raymolds

#### PAINTS, SYNTHETIC RESIN

 PAINTS, SYNTHETIC RE Arnesto Paint Co Inc Boston Variah Co Perce & Raynolds Inc Put Pont E IJ de Nemours & Co Inc Ellistit Phint & Varnish Co Horn (A C) Co Inc Hillingis Bronze Powder Co Kerstour Pinit & Varnish Corp Love Brothers Co MIRACLE ADMESIVE CORP MATIGNAE CYPSUM CO O'Brien Corp Paico Products Inc Pabeo Products Inc PITTSBURGH PLATE GLASS CO Reardon Co Reardon Co SHERWIN-WILLIAMS CO U S GYPSUM CO Valentine & Co Inc Verfex Nales Co Inc Vita-Var Corp Wesco Waterpaints Inc Wilbur & Williams Co

#### **PAINTS, TEXTURE**

Lowebco Reardon Co stries Inc. Tamms Industries U S GYPSUM CO Wesco Waternaint Waterpaints Inc

#### PANELWORK, HARDWOOD

American Plywood Corp BRADLEY LUMBER CO OF ARK CONNOR LUMBER & LAND CO CURTIS COS INC FAIR (D L) LUMBER CO Farley & Lociacher Mig Co Fordre-Crossett Lumber Co Fordre-Crossett Lumber Co Frost Lumber Industries Inc GEORGIA-PACIFIC PLYWOOD CO RODDIS PLYWOOD CORP Twin City Hardwood Lumber Co

#### PANELWORK, SOFTWOOD

Actas Plywood & Venser Co BRADLEY LUMBER CO DOF ARK CROSSETT LUMBER CO CURTIS COS INC FAIR (D L) LUMER CO FOR COS INC FAIR (D L) LUMER CO Profice-Chocett Lumber Co Profice-Chocett Lumber Co Profice-Chocett Lumber Co Brost Lumber Industries Inc GEBRGIA-RACHISC PLYWOD CO M & M Woodworking Co Bouthers M & M Woodworking Co Southern Lumber Co WEYERHAEUSER SALES CO

#### PAPER, ASBESTOS

P PAPER, ASBEDIUS Acme Asbestos Covering & Flooring Co CAREY (PHILIP) MFG CO Curlis Asbestos Co Entre Magnesis Mfg Co Inc JOHNS-MAAWILLE COMP KEASBEY & MATTISON CO Protective Papers Inc RUSEROID CO Sall Mountain Co Saldard Asbestos Mfg Co Thilmany Pulo & Paper Co

#### PAPER, BUILDING

AMERICAN ASPHALT ROOF CORP BARRETT DIV ALLIED CHEMICAL & DYE AMERICAN ASPRALS ROUG CONF BARRETT DV ALLIED CHEMICAL 4 50 60 5 500 100 CAREY (PNILLP) MFG C0 CERTAIN-TEED PRODUCTS CORF Consolidated Waker Power & Paper Co Fleming & Sons Inc FLINTKOTE C0 Globe Booding Products Co Inc Hewitt (C B) & Brothers Inc JOHNS-MAWVILLE CORF Keystone Asphalt Products Co Pabco Products Inc Pressite Engineering Co Protective Papers Inc BaldKon (W) & Co BaldKHART CO RUBEROID CO Seaboard Plastice Corp RUBEROID CO Seaboard Plastics Corp SISALKRAFT CO Thilmany Pulp & Paper Co U S GYPSUM CO Welt & Sons Paper Co

#### ▶ PAPER, BUILDING, REIN-

FORCED, WATERPROOF Angler Corp BIRD & SON INC Bonafide Mills Inc CERTAIN-TEED PRODUCTS CORP Ford Roofing Products Inc Ford Boofing Free Co Hosking Paper Co JOHNS-MANVILLE CORP Protective Papers RICHKRAFT CO RUBEROID CO

#### PAPER, CONCRETE CURING

Angier Corp Hosking Paper Co Keystone Asphalt Products Co Prostite Engineering Co Protective Papers Inc RICHKRAFT CO RUBEROID CO SISALKRAFT CO Thilmany Puln & Paper Co Welt & Sons Paper Co

#### PAPER, COPPER ARMORED

Angier Corp CHASE BRASS & COPPER CO RICHKRAFT CO SISALKRAFT CO Wasco Flashing Co

#### PAPER, SILO LINER

AMERICAN ASPHALT BOOF CORP AMERICAN ASFRALT RVDF CONF ARGIT COT BARRETT DIV ALLIED CHEMICAL & DYE CORP Ford Roofing Products Co Krystone Asphalt Products Co Pressite Engineering Co Prodetive Papers Inc RICHKERAFI CO RUBERDIO CO Thilmany Pulp & Paper Co

PAPER, STACK COVER BARRETT DIV ALLIED CHEMICAL & DYE Eberhard Faber Pencil Co Protective Papers Inc RICHKRAFT CO

▶ PARTITIONS, FOLDING Curtition Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

Holcomb & Hoke Mfg Co Inc HOUGH SHADE CORP International Steel Co NEW CASTLE PRODUCTS CO Orchard Bros Inc RICHARDS-WILCOX NFG CO

#### PARTITIONS, GLASS, STRUCTURAL

ALSYNITE CO OF AMERICA Apex Brass & Brouze Works Libbey-Owen-Ford GLASS CO Pennsylvania Wire Wilass Co PittsBurgh PLATE GLASS CO

#### PARTITIONS, OFFICE, HARD-

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WOOD I S PLYWOOD CORP.

#### PARTITIONS, STEEL

AETNA STEEL PRODUCTS CORP Alabama Metal Lath Co Armeo Drainage & Metal Products Inc BERGER MFG CO DIV REPUBLIC STEEL CORP CORP BOSTWICK STEEL LATH CO FENESTRA BUILDING PRODUCTS Goldmith Metal Lath Co GREAT LAKES STEEL CORP STRAN-STEEL DIV Ha Hauserman Co INLAND STEEL PRODUCTS CO Macomber Inc Mahon (R C) Co Martin-Parry Corp Martin-Parry Corp. Mills Co. Mills Co. NATIONAL GYPSUM CO. PENN METAL CO INC. Sanymetal Products Ing. Steel Partitions Ing. U S GYPSUM CO. Weis (Henry) Mrg Co. Wheeling Corrugating Co.

#### PARTITIONS, TOILET

All Metal Partition Co FIAT METAL MFG CO Petterson (J C) Co Petterson (JC) Co Logan Co Meyers (Fred L) Mfg Co Stewart Iron Works Co Ing Weis (Henry) Mfg Co

PARTITIONS, WOOD, FIBER. GYPSUM, OTHER COMPOSI-TIONS, MATERIALS FOR

Bioxolite Co of America Div Hachmeister Inc CELOTEX CORP CENTAIN-TEED PRODUCTS CORP JOHNS-MANVILLE CORP Macomber Inc Mational Gypsum CO Resolite Corp U S Gypsum Co

#### PASTE, WALLPAPER

P FASIE, WALLPAPER Commercial Paste Co Crescent Products (Co Devoe & Raynolds Inc Fuller (H B) Co Hayen Adhesives Co La Page's Inco Patiler Products Inc Patiler Products Inc Patiler Products Inc Patiler BC Co Tamms Industries Inc Weaco Waterpaints Inc

#### PENCILS, CARPENTERS'

Blaisdell Pencil Co Blaisdell Pencil Co Cupples Co Dietzgen (Eugene) Co Dietzgen (Eugene) Crucible Co Eagle Pencil Co Evanory Novelty & Printing Co Evanory Novelty & Printing Co Faber Celei CA ST, Foreil Co Faber Celei CA ST, Co Koh-L-Noor Pencil Co Koh-L-Noor Pencil Co Murphy (Thomas D) Co Renco Shedd-Brown Mfg Co WHITE (DAVID) CO

# **PENCILS, DRAFTING**

▶ PILING Armeo Drainage & Metal Products Inc

PIPE, ASBESTOS CEMENT JOHNS-MANVILLE CORP KEASBEY & MATTISON CO Smith & Kanzler Ine Standard Asbestos Mfg Co Universal Sewer Pipe Co

#### PIPE, CAST IRON, SOIL & FITTINGS

Anniston Soil Pipe Co Brady Conveyors Corp Byers (A M) Co CRANE CO CRANE CO Eastern Foundry Co Industrial Iron Works Medina Iron & Brass Co Zurn (J A) Mfg Co

.

#### PIPE, CLAY, SEWER

Acme Brick Co American Vitrified Products Co Bowerston Shale Co California Pottery Co Cannelton Sewer Pipe Co Carete Brick Co Carete Brick Co Clark (N) & Sons Div Pacific Clay Products Clay City Pipe Co Columbia Pipe Co Dee Clay Products Co\_\_\_\_\_ Deen Clay Froducta Co Dennison Sewer Pipe Corp Denver Sewer Pipe & Clay Co Dickey (W S) Clay Mfg Co Evans Pipe Co Evans Pipe Co Evans Flipe Co Evans & Howard Sever Pipe Co Giadding-McRe-n & Co Dunction City Clay Co Ledigh Sever Pipe & Tile Co Logan Clay Products Co MatiONAL CLAY PIPE MFRS INC National Fireproducts Co MattiONAL CLAY PIPE MFRS INC National Fireproducts Co Partice Clay Products Co Parton Clay Mfg Co Pine Hall Brick & Pipe Co Pomona Terra-Cotta Co Red Wing Sever Pipe Cop Robinson Clay Products Co Stillwater Clay Products Co Stillwater Clay Products Co Statar Drain Tile Co Union Clay Mfg Cop Universal Sever Pipe Cop Washington Brick & Lime Co What Cheer Clay Products Co What Cheer Clay Products Co Wheeling Steel Corp White Hall Sewer Pipe & Stoneware Co

#### PIPE, CONDUCTOR, EAVES TROUGH

Alabama Metal Lath Co Ames (W B) Badager Corrigating Co Bedger MF DUBLIC STEEL COP Edwards MEAS & COPPER Co Edwards MF Co Hussey (C G) & Co Hillionos (W C) Co Hussey (C G) & Co Hillionos (W C) Co Hussey (C G) & Co Hillionos (C Co New Yolf Co La Crosse Steel Boofing & Corragating Co Mid-States MF Co Mid-States Steel & Wire Co New Holland Metal Co New Holland Metal Co New Forters Roofing & Metal Co New Forters Roofing & Metal Co Potts Farrington Co Reveous Net Als Co Hillions & Co Inc Bedwood Mfra Co New Holland Metal Co New Forters Roofing & Metal Co Potts Farrington Co Reveous Net Als Co Tim Art Metal Co Tim Art Metal Co Wheeling Corrugating Co Willions At Cartars Steel Co Tim Art Metal Co While Consult Co The Artho Co Willions At Corragating Co Willions At Cartars Steel Co Willions Co Willions Co Willions Co Willions Co Willions Corrugating Co Willions At Later Co Willions At Later Co Willions Corrugating Co Willions Corrugating Co Alabama Metal Lath Co Ames (W B) Wheeling Corrugating Williams-Wallace Co York Corrugating Co

#### ▶ PIPE, CULVERT, IRON & STEEL

JIEL Armeo Steel Corp Beall Pipe & Tank Corp Industrial Iron Works Newport Skeel Corp REPUBLICS TEEL CORP REPUBLICS TEEL CORP ST PANL CARRIGATING CO UNITED STEEL FABRICATORS INC Wheeling Corrugating Co

### ▶ PIPE, FIBER CONDUIT

Fibre Conduit Co Orangeburg Mfg Co SONOCO PRODUCTS CO

#### PIPE JOINT SEALING COM-POUNDS

Anti-Hydro Waterproofing Co Ann Yaco Yacophona Co Blue Ridge Tale Co Ine Boyer Chemical Laboratory Ce Ine CALBAR PAINT & VARNISH CO CABERY (PHILIP) MFG CO CURTIS MIS Address Co Dixon (Joseph) Crueibis Co

APRIL 1953

DuPont DeNemoun FLINTKOTE CO Gillespie Varnish Gumputtie Labora Horn (A.C.) Co ITS (E I) & Co 00 Gumputtie Laboratories Horn (A C) Co JOHNS-MANVILLE CORP Keystone Asphalt Products Co Koppers Co Inc Tar Products Div Lake Chemical Co PECORA PAINT CO INC Presstite Engineering Co Reilly Tar & Chemical Corp Reilly Tar & Chemical Ca Republic Creosoting Co Robinson Clay Product Co Sauereisen Cements Co Serricised Product Corp Smooth-On Mfg Co Sullivan Co X-Pando Corp

#### PIPE, SEWER, BITUMINIZED FIBER BROWN CO Orangeburg Mfg Co Inc

▶ PIPE, SEWER, CONCRETE American Vitrified Products Co Universal Concrete Pipe Co Inc

PIPE, STEEL Allegheny Ludium Steel Corp Allegheny Steel Co Armco Drainage & Metal Products Ine Armo Stellage a Artes Frome a Beall Pipe & Tank Corp Beall Pipe & Tank Corp Bethichem Stel Co Denster Mill Nfg Co JONES & LAUGHLIN STEEL CONP LACLEDE STEEL CO National Tube Co Pannos Stell & Mic Co National Tube Co Reeves Steel & Mfg Co REPUBLIC STEEL CORP Wheeling Steel Corp Youngstown Steel Products

#### ▶ PIPE, STEEL GALVANIZED

Bambrick (Richard J) Bethlehem Steel Co JONES & LAUGHLIN STEEL CO National Tube Co REPUBLIC STEEL CORP UNITED STEEL FABRICATORS INC Wheeling Steel Corp Youngstown Sheet & Tube Co

FIFE, WOUD Arrow Tank Co Inc. Baltimore Cooperage Tank & Tower Co Caspar Lumber Co Johnson & Carison. M & M Woodworking Co Beampress Div Pacific Wood Tank Corp Redwood Mfm Co Willamette Valler Lumber Co Wyrkoff (A) & Son Co

#### PIPE, WROUGHT IRON

Armco Drainage & Mctal Products Inc Beall Pipe & Tank Corp Byers (A M) Co CRAME COMPARY Decatur Fond & Steel Co Dempster Mill Mfg Co McDonaid (A Y) Mfg Co South Chester Tube Co

▶ PIPE & TUBING, ALUMINUM Revere Copper & Brass Inc REYNOLDS METALS CO BUILDING PROD-

#### PIPE & TUBING, BRASS & COPPER

American Brass Co Anaconda Sales Co Anathuman Solves Co Bridgeron Brass Co Eridgeron Brass Co Meelle Corass Co Revel Mir Co Wolver A Brass Inc Solverine Tube Dir Calumet & Heda Con-solidated Copper Co

#### ▶ PIPE & TUBING, PLASTIC

American Extruded Products Co Amerine Inc Amerine Inc Carlon Products Corp. Detroit Macoid Corp. Extruded Plastics Inc Goodrich (B F) Co Corporation Johnson Plastic Corp Mossanto CHEMICAL CO Raybestos-Manhattan Ine Manhattan Bubber Div CELOTEX CORP Div Superior Plastics Div Commonwealth Plastics Inc Tennessee Eastman Corp Tenne

U S Rubber Co Visking Corp

#### ▶ PLANERS

American Saw Mill Machine Co BELSAW MACHINERY CO BOICE-CRANE CO DE WALT INC Duro Metal Products Co Greenlee Tool Co PARKS WOODWORKING MACHINE CO Power King Tool Corp ROCKWELL MFG CO DELTA POWER TOOL niv DIV Wallace (J D) & Co WHITNEY (BAXTER D) & SONS INC Yates-American Machine Co

#### ▶ PLANES

ewell Mfr Co MALL TOOL CO METAL PRODUCTS CORP METAL PRODUCTS COMP Millers Falls Co Peck Stow & Wilcox Co PortEr-CABLE MACHINE CO SARGENT & CO STANLEY TOOLS DIV STANLEY WORKS Vaughan & Bushnell Mfg Co

#### PLANKS, ASPHALT

CAREY (PHILIP) MEG CO Keystone Asphalt Products Protective Papers Inc Servicised Products Corp

#### PLANKS, EXTENSION

P PLANKJ, EAIERJU Eabcock (W W) Co Eauer Mig Co Ereyer Brothers Whiting & Co Clark (J R) Co Goshen Mfg Co Plastergon Wall Board Co Plastergon Wall Board Co Tilley (John S) Ladders Co Woodenware Products Corp

#### PLANKS, FIBER, INSULATING

ARMSTRONG CORK CO BUILDING MA-TERIALS DIV CELOTEX CORP CELOTEX COMP Durisol Inc Fir-Tex Insulating Board Co FlurtKoTE CO INSULITE DIV MINNESOTA & GNTARIO PAPER CO JOHNS-MAAVULLE CORP National GYPSUM CO Plantergon Wall Board Co Plantergon Wall Board Co Wood Conversion CO

### PLANKS, GYPSUM CERTAIN-TEED PRODUCTS CORP NATIONAL GYPSUM CO U S GYPSUM CO

#### **PLAN SERVICES**

 PLAN SERVICES
All Climates Plan Book Ageney
American Plan Service To
Architectural Plan Service Ine
Hrown-Biodgett Co
Continental Steel Corp
Edited Statement Ine
Home Planners Ine
Home Planners Ine
Home OF THE WEEK PLAN SERVICE
Lumherman's Plan Service
Martin (S Clyde)
National Plan Service Ine
National Plan Service Ine
National Plan Service Ine
Simmons-Boakman PUS COBP
Souther Plans Co Universal Plan Service WEYERHAEUSER SALES CO

Universal Plan Service WEYERNAEUSER SALES CO

CELOTEX CORP CERTAIN-TFED PRODUCTS CORP GREAT LAKES CARBON CORP KEASBEY & MATTISON CO

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

Kelley Island Lime & Transport Co Minsion Lime Products Corp NATIONAL GYPSUM CO Nelson (IB P) MIC CO Schundler (F E) & Co Ine Sealcon Products Ine Silbrico Corporation Bon-Lite Products Builtwan Co Tamma Industries Ine U S GYPSUM CO Western Mineral Products Co ZONOLITE CO

# PLASTER, ASBESTOS

PLASTER, BONDING CELOTEX CORP NATIONAL GYPSUM CO NU-WALL MFG CO

#### PLASTER, CASTING CERTAIN-TEED PRODUCTS CORP NATIONAL GYPSUM CO U S GYPSUM CO WARREN-KNIGHT CO

PLASTER, CEDAR Coddington (E D) Mfg Co Mineral Pigments Corp

#### PLASTER, FIBERED

Y PLASIER, HOERLY Bine Diamond Corp CELOTEX CORP CENTAIN-TEED PRODUCTS CORP Coddington (E D) MYE Co Farmont Wall Plaster Co Grand Rapids Plaster Co Ideal Cement Co Colorido Portland Div NATIONAL STELLY NATIONAL STELLY UPPLY CO Parise Fortland Cement Co ONIO NYDRATE & 3 Pacific Portland Ceme Sealcon Products Inc U S GYPSUM CO Woodville Lime Co

#### ▶ PLASTER, FINISHING, COLORED

COLUNED Beautez Plaster Co Blue Diamond Corp CELOTEX CORP Coddination (P. D) Mrg Co Grand Rapids Plaster Co NATIONAL CYPSUM CO PHID HYDRATE & SUPPLY CO Penn Crete Products Co Sealcon Products Inc Sealcon Products Inc S GYPSUM CO

#### PLASTER, FINISHING, MOULDING, GAUGING

Blue Diamond Corp CELOTEX CORP CERTAIN-TEED PRODUCTS CORP Grand Rapids Plaster Co ONIO HYDRATE & SUPPLY CO U S GYPSUM CO

#### PLASTER, GYPSUM

Alabastine Paint Products Blue Diamond Corp CELOTEX CORP CERTAIN-TEED PRODUCTS CORP Grand Rapids Plaster Co NATIONAL GYPSUM CO Pacific Portland Cement Co Sealeon Products Inc Tamms Industrica Inc U S GYPSUM CO

# PLASTER, INSULATING GREAT LAKES CARBON CORP PERLITE

DIV Mikolite Sales Corp NATIONAL GYPSUM CO Schundler (F E) & Co Inc Scaleon Products Inc Sno-Lite Products Co ZONGLITE CO

#### PLASTER, LIME

CELOTEX CORP Grand Rapids Plaster Co Kelley Island Lime & Transport Co OHIO HYDRATE & SUPPLY CO Sealcon Products In U S GYPSUM CO Woodville Lime Co

#### PLASTER, PATCHING

Alabastine Paint Products Div Chicago Bronze & Color Works

& Color Works American Fluresit Co Ince CERTAIN-TEED PRODUCTS CORP Chicago Bronze & Color Works Coddington (E D) Mfg Co Consumers Glue Co

Southern Plans Co Standard Homes Co U-Build Enterprises United Home Building Plan Service

PLANS, HOUSE, IN BOOKS Co Brown-Blodgett CELOTEX CORP CELOTEX CORP Civeland Publications GARLINGHOUSE (L F) CO Home Building Plan Sertice Home Plan Rook Co Housing Plan Sertice Ine Martin (S Clyde) National Plan Sertice Ine SIMMONS-BOARDMAN PUB CORP Simmons-BoaRDMAN PUB CORP

Curtis Mfg & Asbestos Co Durham (Donald) Co Fuller (H B) Co Grand Rapids Plaster Co Haves Advestves Co Hayes Adhesives Co Ideal Cement Co Colorado Portland Div Made-Rite Products Inc Muralo Co Inc NATIONAL GYPSUM CO Reardon Co Reardon Co Reliable Paste & Chemical Co Rutland Fire Clay Co Satogran Co Schalk Chemical Co Scalcon Products Ine Stonhard Co Tamms Industries Ine United Gilsonite Laboratories U S GYPSUM CO Wesco Waterpaints Inc X-Pando Corp

### PLASTER RETARDERS CELOTEX CORP NATIONAL GYPSUM CO U S GYPSUM CO

PLASTERBOARD ARMSTRONG CORK CO OPT CELOTEX CORP CERTAIN-TEED PRODUCTS CORP Grand Rapids Plaster Co NATIONAL GYPSUM CO Pabeo Products In U.S. GYPSUM CO

#### PLASTER OF PARIS

CERTAIN-TEED PRODUCTS CORP Fairmont Wall Plaster Co NATIONAL GYPSUM CO OHIO HYDRATE & SUPPLY CO Inc U S GYPSUM CO

## PLASTIC LAMINATES

Aetna Plywood & Veneer Co ALSYNITE CO OF AMERICA ARBORITE CO LTD Ratelite Coro Coddington (E D) Mfg Co Consolidated Water Power & Paper Co Consolidated Tones Continental Can Co DAVIES (J A) & CO Farley & Lorischer Mig Co Formica Cectraic co chemical dept Maskelite MFG Co NASKELTE MFG Co Ohio Rubber Co Parkwood Corp Pioneer Plastics Corp RODDIS PLYWOOD CORP NUDURS FLYWODD CORP ST Paul & Tacoma Lumber Co ST REGIS PAPER CO U S PLYWOOD CORP WESTINGHOUSE ELECTRIC CORP WOODALL INDUSTRIES INC

#### PLASTIC, WATERPROOF

Abesto Mfg Co American Fluresit Co Anti-Hydro Waterproofing Co BiRD & SON FUNTKOTE CO FORMICA CO Hotn (A C) Co Inc Lehon Co Someborn (L) & Sons Inc Lehon Co Souneborn (L) & Sons Inc Superior Plastics Div Commonwealth Plastics Inc Technical Supply Co X Fando Corp

#### ▶ PLIERS

▶ PLIERS Barcalo Mig. Co. Bridgeport: Hardware Mig. Corp. Crewent, Touli Co. Graham. (John: H) & Co. International Twist. Brill Corp. Klein: (Mathias) & Some P. & C. Hand Formed Tool Co. P. & C. Hand Formed Tool Co. P. & C. Hand Formed Tool Co. SRGENT & CO.

#### PLUMB BOBS

Brown & Sharpe Mfg Co Dictigen (Eugene) Co KEUFFEL & ESSER CO LUFKIN RULE CO SARGENT & CO WARREN-KNIGHT CO

#### PLYWOOD, DOUGLAS FIR

ASSOCIATED PLYWOOD MILLS INC Astoria Plywood Corp ATLAS PLYW00D CORP Bellingham Plywood Corp Buffelen Lumber & Mfg Co Cascades Plywood Corp Coast Plywood Mfg Co

Coos Bay Lumber Co Crescent Plywood Co DANY 4 AUSSELL INC Elliott Bay Mill Co Evans Products Co Everett Plywood & Door Cerp Fir Mig Co GEORGIA-FACIFIC PLYWOOD CONP Hamboldt Plywood Conp Hamboldt Plywood Corp Linn Plywood & Door Mar-Lin Timber Corp Mar-Lin Timber Corp Mar-Lin Timber Corp Mar-Lin Timber Corp M & M Woodworking Co Mittala Plywood Corp M & M Woodworking Co Mittala Plywood Corp Nattala Plywood Corp Nattala Plywood Corp Nattala Plywood Corp Natha Pacific Plywood Inc Mittala Plywood Corp Notth Facific Plywood Inc Mittala Plywood Corp Preson-Washington Plywood Co Preson Plywood Corp Pressite Nathan Plywood Corp Public Plywood Corp Stevenson Plywood Corp Eventsen Plywood Corp Nathan Plywood Corp Nathan Plywood Corp Plywood Corp Stevenson Plywood Corp Nathan Plywood Corp Umpqua Plywood Corp U S PLYWOOD CORP VALLEY PLYWOOD CO PALLEY FLYWOOD CO Vancouver Plywood & Veneer ( Veneer Products Co Walting Veneer Co Westing Door & Plywood Corp Western Door & Plywood Corp Western Door & Plywood Corp Veneer Co WEVERHAEUSER SALES CO

Coos Bay Lumber Co

#### PLYWOOD, EMBOSSED

Aetna Piswood & Veneer Co Pistex Corp S PLYWOOD CORP

# **PLYWOOD, EXTERIOR**

Aberdeen Plywood Corp Anacortes Veneer Inc ASSOCIATED PLYWOOD MILLS ATLAS PLYWOOD CORP ATLAS PLYWOOD CORP Bellingham Plywood Corp Buffelen Lumber & Mfg Co Cascades Plywood Corp Coos Bay Lumber Co DANT & RUSSELL INC Elliott Bay Mill Co icts Co. Fir Mfg Co Georgia-Pacific Plywood Co Harbor Plywood Corp Humboldt Plywood Corp LONG-BELL LUMBER CO LONG-BELL LUMBER CO Martin Brothers Ros Co M & M Wondworking Co Northwest Door Co Oregon Plywood Corp Oregon Plywood Corp Oregon-Washington Plywood Co Pennaula Plywood Co Pennaula Plywood Co RobDis PLYWOOD CoRP St Paul & Taroma Lumber Co Surfungheld Plywood Corp Surfungheld Plywood Corp Washington Veneer Co West Coast Plywood Co WEYERHAEUSER SALES CO

### PLYWOOD, FABRIC COVERED

M & M Woodworking Co Resuprest Div Northwest Door Co St Paul & Tacoma Lumber Co U S PLYWOOD CORP

# PLYWOOD, HARDBOARD

SURFACED Aherdeen Plywood Corp ATLAS PLYW00D CORP Industrial Plywood Corp MASONITE CORP MASONITE CORP Multnomah Plywood Corp St Paul & Tacoma Lumber Co Simpson Logging Co Western Veneer Co

# PLYWOOD, HARDWOOD

ATLAS PLYWOOD CORP DANT & RUSSELL INC GEORGIA-PACIFIC PLYWOOD CO HASKELITE MFG CO HIGGINS INC MENGEL CO MI & M Wood Working Co

orthwest Door Co Oregon Plywood Corp RODDIS PLYWOOD CORP Schnitzer Brothers Simpson Logging Co THOMASON PLYWOOD CORP U S Mengel Plywoods U S PLYWOOD CORP

#### PLYWOOD, INLAID U S PLYWOOD CORP

#### PLYWOOD, MARINE

P FLIWOUD, MARINE ASSOCIATED PLYWOOD MILLS INC MARBOR PLYWOOD CORP MASKELITE MFG CO HIGGINS INC M & M Woodworking Co Northwest Door Co Oregon Plywood Corp RODDIS PLYWOOD CORP U S Mengel Plywoods Ine U S PLYWOOD CORP

#### PLYWOOD, METAL COVERED HASKELITE MEG CORP

PLYWOOD, PINE

ATLAS PLYWOOD CORP HARBOR PLYWOOD CORP LONG-BELL LUNBER CO M & M Woodworking Co M & M Woodworking Co RODDIS PLYWOOD CORP U S Mengel Plywoods Inc U S PLYWOOD CORP

#### PLYWOOD, PLASTIC FACED

Anacortes Veneer Inc Buffelen Mfg Co Anacortes Veneer Inc Buffelen Mfg Co FORMICA CO GEORGIA-PACIFIC PLYWOOD CO HARBOR PLYWOOD CORP HIGGINS INC M & M Woodworking Co m & m woodworking Co Northwest Door Co RODDIS PLYWOOD CORP St Paul & Tacoma Lumber Co Simpson Logging Co U S Mengel Plywoods Inc U S PLYWOOD CORP West Cost Plywood Co West Coast Plywood Co WESTINGHOUSE ELECTRIC CORP WOODALL INDUSTRIES INC

> PLYWOOD, RAT REPELLENT ATLAS PLYWOOD CORP US PLYWOOD CORP

# PLYWOOD, REDWOOD ATLAS PLYWOOD CORP Buffelen Mfg Co M & M Woodworking Co

#### PLYWOOD SEALERS

American Varnish Co ATLAS PLYWOOD CORP MONSANTO CHEMICAL CO Oregon Plywood Corp Standard Varnish Works U S PLYWOOD CORP

#### PLYWOOD, STRIATED ATLAS PLYWOOD CORP U S PLYWOOD CORP

#### POLISHING MACHINES AMERICAN FLOOR SURFACING MACHINE

CO Atlas Floor Surfacing Machinery Corp Atlas Floor Surfacing Machiner, Bignell Machine Co-Clarice Sanding Machine Co-Detroit Surfacing Machine Co-Fay Floor Machine Co-Fay Floor Machine Co-Flortoss-Habit Co-General Floorcraft Ine Hild Floor Machine Co-Hilder Co-Hilger Co HOLT MFG CO Landers Frary & Clark Lincoln-Schlueter Floo Lincoln-Schlueter Floor Machine PORTER-CABLE MACHINE CO RED DEVIL TOOLS SKIL CORP Tennant (G H) Co Muchi ery Co

PORCH ENCLOSURE PANELS Compo-Miracle Products Co

PORCHES AND CORNICES. **MATERIALS FOR** CURTIS COS INC

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52 Schwerd (A F) Mfg Co Wheeler Osgood Co

#### POST CAPS & BASES

Brainard Steel Co Cleveland Steel Specialty Co Cole Mfg Co Consolidated Iron-Steel Mfg Co Schwerd (A F) Mfg Co Sharon Steel Co

POST OR POLE PULLERS **KEYSTONE STEEL & WIRE CO** 

#### POSTS, ADJUSTABLE FLOOR LEVELING AND SUPPORTING

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LEVELING AND SU Adjusta Post Mfg (Co Akron Products Ko Parainard Steel Co Donley Brothers Hill r B H & Co of Ohio Harris Masseh J) Sales Co Perma-Jack Corp Bharon Steel Co Sawhill Mfg Co Tei-0-Post Co Templeton Keniy & Co Junited Metal Products Ine Wolfe Products Ine

#### POSTS, FENCE, STEEL AND IRON

INCOM AMERICAN STEEL & WIRE CO Anchor Post Fence Div Anchor Post Products Inc Bethlehem Steel Co Div Borg-Warner Corp CECO STEEL PRODUCTS CORP COLORADO FUEL & INCOM CORP CYCLONE FENCE DIV AMERICAN STEEL 4 WIRE CO 4 WIRE CO Dare Products Inc KEYSTONE STEEL & WIRE CO Mid-States Steel & Wire Co Northwestern Steel & Wire Co Pittsburgh Steel Products Co REPUBLIC STEEL COR TENNESSEE COAL IRON & RAILROAD CO WICKWIRE SPENCER STEEL DIV COLO-RADO FUEL & IRON CORP

#### POSTS AND POLES, CREO-SOTED, SALT TREATED

American Lumber & Treating Co CROSSETT LUMBER CO Frost Lumber Industries Inc GEORGIA-PACIFIC PLYWOOD CO Koppers Co Inc Miller (T R) Mill Co SOUTHERN PINE LUMBER CO

#### POSTS AND POLES, WOOD

Adelphian Mill Arnold-Dain Corp BRUCE (E L) CO Colfax Lumber & Creosoting Co CONNOR LUMBER & LAND CO CROSSETT LUMBER CO GEORGIA-PACIFIC PLYWOOD CO Idaho Pole Co LONG-BELL LUMBER CO

MacFarlan (L D) Co Ld MacFarlan (L D) Co Ld MacFarlan (L D) Co Ld Marton Mfg Co Morton Mfg Co Netrosa Bridge Supply & Lamber Co Republic Crossing Co Standard Products Co Willamette Valley Lumber Co Wood Products Co

#### POTS, GLUE

Black Brothers Co Inc BLACK & DECKER MFG CO Francis (Charles E) ( Sta-Warm Electric Co Vulcan Electric Co Waage Electric Inc

#### POWER PLANTS

C & H Electric Co Filer & Stowell Co HOMELITE CORP HUMELITE CON HOTMELITE CO KOMLER CO HUMEN CO WURKS HUMEN CO WURKS HUMEN CO WURKS HUMENSALES CO Sterling Foundry Co Inc Swartwout Co Watkesha Motor Co WORTHINGTON CORP CONSTRUCTION EQUIPMENT SALES DIV

AMERICAN BUILDER

#### ▶ PREFABRICATED BUILDINGS. FARM

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FARM Butler Mfg Co Claston & Lambert Mfg Co Claston & Lambert Mfg Co Claston & Co Claston & Co Foral Comp Homes Inc Foral CivOn R) INC ERH-WAY HOMES INC HOMESON (E F) & Son Houston Riow Pipe & Sheet Metal Works Houston Riow Fue & House Co James Mfg Co Johnson Co Johnson Co Pioneer Co Potter Mfg & Lumber Co Precision-Built Homes Corp Pre Fab Industries Starline Inc STEELCRAFT MFG CO super-Structures Ine Texas Howsing Co Inc TIMBER STRUCTURES INC TRUSCON STEEL CO U S Challenge Co U S Challenge Co Unit Structures Inc WEYERHAEUSER SALES CO

# PREFABRICATED CLOSETS

MENGEL CO Boach & Musser Mrg Co

#### ▶ PREFABRICATED GARAGES

Adirondack Log Cabin Co Inc Bennett Industries Inc Brooks-Skinner Co Brooks-Skinner Co Crawford Corp Davis-Watson Mfg Co Factory Built Homes Inc FORD (IVON II) INC GBH-WAY HOMES INC FURD CAVUR #1 IAC Green Lumber Co Body Way HOMES IAC Green Lumber Co Johnson Co Pre-Fab Industries Reliance Steel Products Co Sectional Garage Works Smith-Orr Inc Southern Mill & Mfg Co STEELCRAFT MFG CO SUBERCHAFT MFG CO SUBERCHAFT MFG CO Texas Housing Co Inc Thayer Portable House Co U S Challenge Co U S Prefab Corp

#### ▶ PREFABRICATED HOUSES

Adirondack Log Cabin Co Inc Admiral Homes Inc Aladdin Co Aladdin Co Allied Housing Associates Inc Aladdin Co American Buldrok Co American Buldrok Co American Buloses Inc Bennett Lumber Corp Best Homes Inc Brialei Homes Inc Brialei Homes Inc Brialei Homes Inc Brialey (W P) Burke Millwork Co Bush Prefabricated Structures Inc Cajif Prefab Inc Cajif Prefab Corp Capital Prefab Inc Charlotte Lumber Co Inc City Lumber Co Inc City Lumber Co Inc City Lumber Co Inc Curvice Loropartion Currice Lumber Co Dade Brothers Inc Economy Houses Inc Economy Houses Inc Fotor (VION R) INC Fotor (VION R) INC Fox Brothers Mfg Co GBH-WAY HOMES INC GBH-WAY HOMES INC General Industries Inc General Industries Inc General Pausel Corp Green Lumber Co GUNNISON HOMES INC HARMAT LUMBER & INC HARMAT LUMBER & INC HARMAT LUMBER & INC HOUSEN HOMES LOW HOUSEN HOMES LOW HOUSEN HOMES LOW Hoesier Homes Inc Housemart Houston Ready-Cut House Co Illinois Lumber Mfg Co Indiana Demountable Housing Inc Indiana Homes Inc Intermountain Houses INTERNATIONAL HOMES INC Johnson Company Johnson Quality Homes Inc K & M Corp Knox Corporation K & M Corp Knox Corporation Le Tourneau (B G) Inc Lewis Mfg Co Lumber Fabricators Inc Maryland Modern Housing Corp Midwest Houses Midwest Houses Midwest Housing Corp MODERN HOMES CORP NATIONAL HOMES CORP NORGE COTTAGES INC

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Page & Hill Homes Panhandle American Houses Pease Woodwork Co Ince PLACE HOMES INC Plainfield Lumber & Supply C Plywood Structures Precision Built Homes Corp Precision Romes Co HOMES INC Preco Corporation Pre-Fab Industries efab Mfg Co Prefab Mfg Co Prefabricated Products Co Prefabrications Inc Quality Homes Reliance Homes Inc Richel (L H) Lumber Co Rock Island Lumber Co Rock Island Lumber Co Roth Lumber Co Shelter Industries Inc Routhers Mill & Mfg Co Routhwest American Houses Routhwest American Houses Routhwest Mericated Building Co Stanway Prefabricated Building Co Stanway Prefabricated Building Co STEELCRAFT MFG CO Strathmoor Company Super-Structures Inc Texas Prefabricated Housing Co Thyer Mfg Corp Pollman Homes Div TIMBER STRUCTURES INC S Challenge Co S Homes Inc U S Prefabricating Corp UNITED STEEL FABRICATORS ING Unit Structures Inc Universal Fabricating & Mfg Co WADSWORTH HOMES INC Well Built Mfg Co WEST COAST MILLS WEVERHAEUSER SALES CO Williams (Cy) Fabricators Winston (N K) Associates

#### PREFABRICATED LOG CABIN PANELS

Fence Co of America Bustic Furniture Co Inc

#### ▶ PREFABRICATED WALL PANELS

merican Bildrok Co liott Bay Mill Co ENESTRA BUILDING PRODUCTS

### PRESERVATIVES, CANVAS

American Tent & Awning Co Astrup Co Chemical Co CUPRINOL DIV DARWORTE INC Devoe & Raynolds Inc Devoe & Raynolds Inc Dow Chemical Co Du Pont (E I) de Nemours Co Inc Ensign Products Co Fulton Bag & Cotton Milis Fution may a contrasting Glidden Co Kenours Co Inc Haynes Products Co Interchemical Corp Kubis (H B Fred) Hapnes Frontist Co Interchemical Corp Kubis (H B Fred) Lowe Brothers Co Materials & Treatment Co Inc Minnesota Mining & Mig Co Mobile Paint Mig Co MONSANTO CHEMICAL CO MONSANTO CHEMICAL CO Nelsonite Chemical Products Ine Osmose Wood Preserving Co of America Ine Pennsylvania Salt Mig Co PERMA PRODUCTS CO PITTSBURGH PLATE GLASS CO PITTSBURGH PLATE GLASS CO PITTSCIION PRODUCTS MFG CO Profiles Co Standard Industrial Products Ine Sullivan Company Unexcelled Chemical Corp Vita-Var Corp Weather-Seal Co Wilbur & Williams Co Wilbur & Williams Co

### **PRESERVATIVES, FIBER**

BOARD mical Co Chapman Control Co Dow Chemical Co MONSANTO CHEMICAL CO PROTECTION PRODUCTS MFG CO Wood Treating Chemical Co

PRESERVATIVES, MASONRY Truscon Laboratories Div Devoc & Raynolds

PRESERVATIVES, WOOD Abesto Mfg Corp American Lumber & Treating Co Barr (W M) & Co

 BARRETT DIV ALLIED CHEMICAL & DYE GAP
 Boyer Chemical Laboratory Cc Breinig Brochers Inc
 Bruce (E L) C6
 CA-Mood Hymer Co-mence (Laboratory Cc)
 Chain Belt Co Cranael Chemical Corp
 Chain Belt Co Carreel Chemical Corp
 Chemical Ko Coopers Creek Chemical Corp
 Cure Hou V OAWOBTH HOC Dove Chemical Corp
 Cure Hou Ivi OAWOBTH HICO Dove Chemical Corp
 Cure Hou Ivi OAWOBTH HICO Dove Chemical Co
 Cure Hou Ivi OAWOBTH HICO Dove Chemical Co
 Gurden Gorge C) Chemical Co Bur Colors
 Gordon (Gorge C) Chemical Co Hull Termite Control Kystems Horn (A C) Co Inc
 Kapers (F F) A Co Inc Kapers (Co Inc)
 Kapers (F F) A Co Inc Materials & Treatment Co Inc Carree (Tr) & Sons
 Monotte Chemical Products Inc Pander (Tr) & Kons
 Point (F F) A Co Inc Materials & Treatment Co Inc Carree (Tr) & Kons
 Pointe Chemical Products Inc Pander (Tr) & Kons
 Pointe Coll Colling Co Parker (Tr) & Kons
 Pointe Coll Scoper (C) Chemical Products Inc Pander (Tr) & Kons
 Pointe Coll Scoper (C) Charter (Tr) & Kons
 Pointe Coll Scoper (C) Charter (Tr) & Kons
 Pointe Coll Scoper (C) Charter (Tr) & Kons
 Pointe Coll Scoper (Tr) & Kons
 Pointe Coll Scoper (C) Charter (Tr) & Kons
 Pointe Coll Scoper (Tr) & Kons</li Pratt & Lambert PROTECTION PRODUCTS MFG CO Protexol Corp Purifey Products Inc Reilly Tar & Chemical Corp Republic Creosoting Co Rockford Paint Mfg Co Rock Island Millwork Co RUBEROID COMPANY Sargent-Gerke Co Sonneborn (L) Sons Inc Speco Inc Standard Industrial Products Inc Steelcote Mfg Co Steelcote Mf Sullivan Co Termitol Co Tesco Chemicals Inc U S PLYWOOD CORP U S FLYWOOD CORP Vacinol Sales Co Vita-Var Corp Wesco Waterpaints Wilbur & Williams Co Wood-Treating Chemical Co

### PREVENTIVES, SAP STAIN

Breinig Brothers Inc Chapman Chemical Co Cre-0-Tox Chemical Co Dow Chemical Co Du Pont (E 1) de Nemours Co Inc MONSANTO CHEMICAL CO Nelsonite Chemical Products Inc **PROTECTION PRODUCTS MFG CO** Wood Treating Chemicals Co Wyandotte Chemical Corp Ind

#### **PUBLICATIONS, CONSUMER,** SHELTER

American Home Magazine Corp American Magazine BETTER HOMES & GARDENS try Gentleman County General GOOD HOUSEKEEPING FORUM HOUSE BEAUTIFUL House & Garden Living for Young Homemakers Parents' Magazine

### **PUMPS, BOOSTER**

BELL & GOSSETT CO Taco Heaters Inc THRUSH (H A) CO

#### **PUMPS, CENTRIFUGAL**

ALLIS-CHALMERS MFG CO Aurora Pump Co Decatur Pump Co Construction Machinery Sales Co CONSTRUCTION MACHINERY SALES CO Leming Co Corp Eric Pumps Inc Div Hamilton Thomas Corp Eric Pump & Engine Works Essick Mir Co FLINT & WALLING MFG CO INC HOMELITE CORP Lancaster Pump & Mig Co Inc Marlow Pumps McDonald (A Y) Mig Co Myers (F & B rother Co Red Jacket Mig Co Trane Co Wayne Home Equipment Co Wayne Home Equipment Co Wayne Home Equipment Sales Div

# PUMPS, CONTRACTORS'

Barnes Mfg Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

P PUMPS, STIRRUP, American Line Baker Mig Co Butler Co Dempace And Co Honora Co Honora Co Honora Co Honora Co Honoral (A Y) Mig Co Avers (F E) & Brother Co Oakes Mig Co Red Oross Mig Co Red Jacket Mig Co Boilt (D B) Tennessee Store Works

#### **PUMPS, SUCTION**

Chicago Pump Co Dayton Pump & Mfg Co Deming Co Erie Pump & Engine W o & Engine Works Everite Pump & Mfg Co Inc FLINT & WALLING MFG CO INC FLIMI & WALLING MFG CO ING Gardner Dewir Co HOMELITE CORPORATION Lancaster Fump & Mig Co Inc McDonald (A Y) Mig Co Wayne Home Equipment Co Wayne Home Equipment Co Wenthing Ton Corp Construction Equipment SALES Div

#### PUMPS, SUMP

P PUMPS, SUMP American Weil Works Aurora Pump Co C H & E Mfr Co Construction Machinery Sales Co Dayton Pump & Mfr Co Deming Co Dempster Mill Mfr Co Economy Pumps Lie Div Hamilton-Thomas Comp Pump & Mfr Co Fulfmans Morse & Co Flitt & WALLING MFC CO Gould Pumps Inc Farmanas Moree & Confe CO Farmanas Moree & Confe CO Film Term Walking Jacuzzi Brothers Ine Kenco Ine Lancaster Pump & Mfg Co McBonald (A Y) Mfg Co Milwaluke FiLUSH VALVE CO Milwaluke FiLUSH VALVE CO Milwaluke FiLUSH VALVE CO Penberliy Injector Co Penberliy Ric Co Wayne Home Equipment Co Ine Worthing Ton Core Construction EQUIPMENT SALES DIV

#### **PUMPS, WINDMILL**

Aermotor Co Baker Mfg Co Butler Co Deming Co Dempster Mill Mfg Co Dempster Mill Mrg Co Fairbanks Morse & Co FLINT & WALLING MFG CO INC Melbonald (A Y) Mfg Co Myers (F E) & Brother Co Bed Jacket Mfg Co

#### PUNCHES, CENTER

Provented States File & Tool Co Baltimore Tool Works Bridgeport Hardware Mfg Corp Cincinnati Tool Co Crescent Tool Co Damascus Steel Products Corp Damascus Steel Products Corp Damascus Steel Products Corp Heiler Brothers to Maybres Steel Products Inc Mephisto Tool Co Millens Falls Co Original Enderse Co Original Enderes Co P & C Hand Forged Tool Co Proto Tool Co Rainey-Tools STANLEY TOOLS DIV STANLEY WORKS Trimble & Fink Mfg Co Union Tool Co United Wire Goods Mfg Co Wilde Drop Forge & Tool Co

#### **PUTTY, LEAD**

Biddle Co Cook Paint & Varnish Co Eagle-F co boratories Kuhis (H B Fred) PECORA PAINT CO PITTSBURGH PLATE GLASS CO Sullivan Co Tamms Industries Inc

### PUTTY, METAL SASH

Armstrong Co Biddle Co Blue Ridge Tale Co Inc Briggs-Maroney Co Inc Devoe & Raynolds Inc Dicky-Pontius Co Dicky-Pontius Co Donley Brothers Inc Ponley Brothern Felton Sibley & Co Fort Pitt Chemical Co Gumputtie Laboratories Landen Putty Works MACKLANBURG-DUNCAN CO Parker (Ira) & Sons Inc PECORA PAINT CO Plastic Products Co Smooth-On Mfg Co Steelcote Mfg Co

#### PUTTY, OIL

Armstrong Co Biddle Co Biddle Co Biddle Midge Tale Co Ine Boyle-Midway Ine Briggs-Maroney Co Christy Co Ine Devoe & Raynolds Ine Dicks-Pontius Ce Durham (Donald) Co Ever-Plastics Cop Farwell 022000 Kirk & Co Pettor Sibles & Co Felton Sibley & G FLINTRUTE CU Fort Pitt Chemical Co Fuiler (W P) & Co Glidden Co Goodrich (BF) Co Gumputtie Laboratories Inc. orn (A C) Co HNS-MANVILLE CORP uhls (H B Fred) anden Putty Works as-Stik Mfg Co isbitan Co Ing Lichten Co Inc MACKLANBURG-DUNCAN CO Mar-Kay Mfg Co Minnesota Linseed Oil Paint Co Parker (Ira) & Stons Inc PECORA PAINT CO INC PITTSBURGH PLATE GLASS CO lastic Products Co Plastic Products Co Stavagran Co Schulk Chemical Co Scal Rite Caulking Co Ine Stevicetor Mg Co Stevicetor Mg Co Tammas Industries Inc Tremco Mg Co Tone Laboratories Dir Devoe & Raynolds Drib Products Co Weith Products Co Weitherill (George D) & Co

#### PUTTY, PLASTICIZED, WOOD

oyle Midway Inc Boyle-Midway Inc Breinig Brothers Inc Lacton Glue Mfg Co Mobile Paint Mfg Co National Casein Sales Schalk Chemical Co Steelcote Mfg Co Technical Supply Co Willman Products Co

#### **PUTTY REMOVERS, ELECTRIC** Fletcher Terry Co

#### **PUTTY, ROOF**

Abesto Mfg Corp Biddle Co Blue Ridge Tale Co Inc Ford Roofing Products C Ford Routing Products Co. JOHNS-MANVILLE CORP. King (E & F) & Co. Inc. Seal Rite Caulking Co. Inc. Smooth-On. Mfg Co. Stonhard Co.

#### **PUTTY, WATER**

Boyle-Midway Inc Durham (Douald) Co Fort Pitt Chemical Co Fuller (H B) Co Lichten Co Inc Reardon Co Bavogran Co Schalk Chemical Co Sheffield Bronze Paint Corp Steelcote Mfg Co ivan Co ma Industries Ind

RACEWAYS, WIRE CARRY-ING

AMERICAN TELEPHONE & TELEGRAPH CO Knapp Brothers Mfg Co REPUBLIC STEEL CORP

**RACKS, BLUEPRINT** NATIONAL CO INC.

**RADIATORS** AMERICAN RADIATOR & STANDARD SANI-TARY CORP BOILER DIV DUNKIRK RADIATOR CORP al Radiator Corp Utica Radiator Corp VULCAN RADIATOR CO Weil-McLain Co YOUNG RADIATOR CO

#### **RADIATORS, CONVECTOR** BUSH MEG CO

#### **RADIATORS, PORTABLE**

Acme Electric Heating Co Electric Steam Radiator Corp Sentry Metal Froducts Div Sentry Control Corp

#### RADIOS, FLUSH WALL

Bendix Radio Div Bendix Aviation Corp FLUSH WALL RADIO CO RAFTERS, LAMINATED AMERICAN ROOF TRUSS CO INLAND STEEL PRODUCTS CO Knapp Brothers Mfg Co RILCO LAMINATED PRODUCTS INC Tacoma Lumber Fabricating Co TIMBER STRUCTURES INC WEYERHAEUSER SALES CO Wollaeger Steel Corp Kink (Frank J)

#### **RAILINGS, METAL**

Armeo Drainage & Metal Products Inc ARTCRAFT ORNAMENTAL IRON CO BELSON MEG CO

Bellson for BELSON WFE CO Blum (fullus) Co Inc Blum (fullus) Co Inc Blum (fullus) Co Inc Central Products Co Central Products Co COLUMATE INON FERCE CO COLUMNAS Brass CO Davis & Stell Co Decatur Iron & Steel Co Des Moines Ornamental Iron Co FAMSCO MFG DIV FALLS STAMPING & WELDING CO Fiske (J W) Iron Works Grand Rapids Wire Products Co Hawkins Iron Co Inc Hawkins Iron Co utchinson Co international Steel Co centucky Metal Products Co ocke Mfg Co

Locke Mfg Co Locan Co Weltal CRAFTERS Merson (Fred L) Mfg Co Newman Brothers Inc Prage Steel L) Mfg Co Newman Brothers Inc Prage Steel & Wire Div American Chain 4 Cable Co Inc Smith (F P) Wire & Iron Works Standard Bronze Co Stuttern Wire & Iron Works Standard Bronze Co Valear Metal Products Valear Metal Products Valean Aleal Products Co Wiemann (Ernest) Iron Works

# RAILINGS, WOOD

AWGEL NOVELTY CO COLONING COLONDER CO CROSSETT LUMBER CO CURTIS COS INC Farley & Lockscher Mig Co Frond Lumber Industrie Inc Keystone Frame & Mig Co Kinzus Pine Mills Co LONG-BELL LUMBER CO Marquart Millsork Co Morgan Co Rock Island Millwork Co Willamette Valley Lumber Co

RANGES, ELECTRIC, BUILT IN

Thermador Electrical Mfg Co

**RANGES, ELECTRIC** 

Admiral Corp America & Southern Corp Benjamin Electric Co Cavalier Corp CROSLEY DIV AVCO MFG CORP Detroit Michigan Stove Co Detroit Vapor Stove Div Borg-Warner Corp Estate Stove Co Div Noma Electric Co Excelsior Stove & Mig Co Florence Stove Co Florence Stove Co Florence Stove Co Sto. Frigidaire Div General Motors Corp GENERAL ELECTRIC CO APPLIANCES & MERCHANDISE DEPT Gibson Electric Refrigerator Corp CU Gray & Dudley Co Kalamazoo Stove & Furnace Co KELVINATOR DIV NASH-KELVINATOR CO Kennedy Co Landers Frary & Clark Lindemann (A J) & Hoverson Co Malleable Iron Bange Co Monitor Equipment Corp Montag Stove & Furnace Works MURRAY CORP OF AMERICA NORGE DIV BORG-WARNER CORP (APPLI-ANCE DIV) Stove Co Perfection Store Co-Phileo Corp Prentiss Wabers Producta Co Pressed Steel Co Roberts & Mander Corp Rutenber Electric Co Inc Pharmador Electrical Mfg Co Thermador Electrical Mfg Co WESTINGHOUSE ELECTRIC CORP

#### RANGES, GAS

A B Store Co America & Southern Corp American Store Company Birmingham Store & Range Co Brown Store Works Calorle Store Corp Caraller Corp Caurie Corp Catalier Corp Chambers Products Inc Crown Store Works Detroit Michigan Store Co Detroit Vapor Store Div Borg-Warner Corp Elgin Store & Oven Co Div Acme Visible Records Inc Estate Store Co Div Noma Electric Co Excelsior Store & Mfg Co Florence Store Co Florence Store Co Gene City Stave Mfg Co Gene Cara Alar ComDitioning ComP Globe American Corp Globe American Corp Grand Home Appliance Co Grabam (James) Mfg Co Hardwick Store Co Karr Mange Co Lindemann (A J) & Hoverson Co Majestic Mfg Co Malesbic Imm Ren Co Mt Vernon Furnace & Mfg Co MURRAY CORP OF AMERICA NORGE DIV BORG-WARNER CORP (APPLI-ANCE DIV) ANCE DIV) Odin Stove Mfg Co O'Keefe & Merritt Co Paragon Utilities Corp Perfection Stove Co Prentiss Wabers Products Co

Prentiss Wahers Products Co Renorm Stove Co Roberts & Mander Corp Boper (Gorge D) Corp. Sexton (8 B) Stove & Mig Co Tapans Stove Co Ptility Appliance Corp Washington Stove Works Welbrit Stove Commany Inc Western-Holly Appliance Co Western Stove Co

#### **RECEIVERS, GARBAGE**

AIR CONTROL PRODUCTS INC BOSTWICK STEEL LATH CO Donley Brothers Co Gatriel Steel Co Geuder Panschke & Frey Co Kraus (Walter S) Co LAWSON (F N) CO MAJESTIC CO National Enameling & Stamping Co Northwest Metal Products Inc Witt Cornice Co

RECEIVERS, PACKAGE BOSTWICK STEEL LATH CO COPCO STEEL & ENGINEERING CO

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

#### CORBIN CABINET LOCK DIV AMERICAN Donley Brothers Co Excel Metal Cabinet Co Inc n.

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Harris Inc MAJESTIC CO

#### **REELS, GARDEN HOSE**

Craco Sales Corp Lewis Engineering & Mfg Co True Temper Corp Zierden Mfg Co

#### ▶ REFRIGERATORS, ELECTRIC

Admiral Corp Amana Societ Coolerator Corp Copeland Refrigerators CROSLEY DIV AVCO MFG CORP Despfrezz Div Motor Products Corp Dester Co Estate Store Co Div Noma Electric Co Friedrich (Ed) Inc Friedrich (Ed) Inc General Arc Conditioning Corp GENERAL ELECTRIC CO APPLIANCES & MERCHANDISE DEPT General Implement Corp General Implement Corp Giblian Brothers Inc Gilfillan Broth rs Inc Herbst (L B) Corp Jordan Refrigerator Co KELVINATOR DIV NASH KELVINATOR CO King Refrigerator Corp Leeson Steel Prods Inc Lindemann (A J) & Hoverson Co McQuay Inc Meduay Ine Monitor Equipment Corp. NORGE DIV BORG-WARNER CORP (APPLI-ANCE DIV) O Keefe & Merritt Co Philes Refrigerator Corp. Pressed Steel Co Refrigeration Sales Co Seeger Refrigerator Co Word Refrigerator Co Ward Refrigerator & Mfg Co

#### ▶ REFRIGERATORS, GAS SERVEL INC.

#### REGISTERS, HEATING AND VENTILATING

AIR CONTROL PRODUCTS INC iry & Furr BENNETT-IRELAND INC Excelsion Store & Mfg Co Forest City Foundries Co Hart & Cooley Mfg Co NEATLATOR INC INLAND STEEL PRODUCTS CO Krauser-Bogd Inc Liberty Foundry Co Krauser-Boyd Inc Liberty Foundry Co MALESTIC CO Philadelphia Hardware Mfg Corp Philadelphia Hardware & Malleable Iron Works Works Standard Steel Cabinet Co Tuttle & Bailey Inc U S Register Co

**REPELLENTS, BIRD** NIXALITE CO OF AMERICA

#### **REPELLENTS, INSECT**

All-Nu Products Co BARRETT DIV ALLIED CHEMICAL & DYE FORS Calumet Refining Co Glidden Co Nourse Oil Co Socony-Vacuum Oil Co Ine

#### **REPELLENTS, WATER**

American Lumber & Treating Co Armor Laboratories Inc Chapman Chemical Co Concor Paint Co CUPRINOL DIV DARWORTH INC Dasco Co Inc Dow Chemical Co Du Pont (E I) de Nemours & Co Inc Flexrock Co Horn (A C) Co Inc Co II Horn (A.C.) Co Ine Monrow Co Inc. MORSANTO CHEMICAL CO PROTECTION PRODUCTS MFG CO Rock Island Millwork Co STANDARD DRY WALL PRODUCTS INC Spray-O-Bond Co Truscon Laboratorics Div Devoe & Raynolds Truscon Caboratorics Div Devoe & Raynolds Will<sup>Co</sup>r Co Wood-Treating Chemicals Co Wurdack Chemical Co

#### **RESIN, SYNTHETIC**

BARRETT DIV ALLIED CHEMICAL & DYE Co Chemical Div Rord Borden Co Chemical Priv Devoe & Ravnoids Inc Du Pont (E I) de Nemours & Co Firestone Plastic Co Fir

Fuller (H B) Co Industrial Chemical Sales Div West Virginia Pulp & Paper Co Monite Waterproof Glue Co MONSANTO CHEMICAL CO PLASTICS DIV MORSANIS Chasein Sales National Casein Sales Paisley Products Inc Perkins Glue Co Placo Dir Paisley Products Inc Reilly Tar & Chemical Corp Resinous Products & Chemical Co Reinous Products & Che Rohm & Haas Co U S PLYWOOD CORP U S Rubber Co

**RODDING MACHINES** Whitman Mfg Co

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#### RODS, LIGHTNING

P RODS, LIGHTNING American Lightning Rod Co Ine Boston Lightning Rod Co Brown Lightning Rod Co Dooley Lightning Rod Co Electra Protection Co Inc Independent Co Co Michael Co Co National Lightning Rod Co National Lightning Protection Co Obio Lightning Rod Co Robbins Lightning Protection Co Shräuger & Johnson Inc Thompson (George E) Co West Dodd Lightning Conductor Corp

#### **ROLLERS, LAWN**

Boyle Mfg Co Jackson Mfg Co Lansing Co Ohio Machine Products Co Whitehurst (B W) Mfg Corp

#### ROLLERS, LINOLEUM

ARMSTRONG CORK CO BUILDING MA-Lansing Co Selck (Walter E) & Co

#### ▶ ROLLS, RIDGE, ROOF VENTILATING

Allen Steel Products INLAND STEEL PRODUCTS CO Klauer Mfg Co ST PAUL CORRUGATING CO

### ROLLS, ROOF RIDGE

Alabama Metal Lath Co Allen Steel Products Badger Corrugating Co BERGER MFG DIV REPUBLIC STEEL CORP Bethlehem Steel Co BIRD & SON CECO STEEL PRODUCTS CORP CELOTEX CORP CHASE BRASS & COPPER CO Continental Steel Corp Edwards Mfg Co FilmTKOFE CO Goldsmith Metal Lath Co INLANG STEEL PRODUCTS CO JOHNS-MANVILLE CORP KEASBEY & MATTISON CO Klauer Mfg Co Mid-States Steel & Wire Co Mid-States Steel & Wire Co New Holland Metals Co NICHOLS WIRE & ALUMINUM CO Northwest Metal Products NOTHWEST Metal Products Inc Penn Sumply & Metal Corp REPUBLIC STEEL CORP REVNOLDS NETALS CO BUILDING PROD-UCTS DIV RUBERDID CO ST PAUL CORRUGATING CO Southern States Iron Roofing Co TENNESS CONTINUE CO Southern States Iron Roofing Co TENNESSEE COAL IRON & RAILROAD CO UNITED STATES STEEL CO Wheeling Corrugating Williams-Wallace Co ng Co

#### **ROOF SADDLES**

Hudson (H D) Mfg Co INLAND STEEL PRODUCTS CO Macomb Steel Products Co Reeves Steel & Mfg Co

#### **ROOFING, ALUMINUM**

Aluminum Co of America CECO STEEL PRODUCTS CORP Cupples Co Kaiser Aluminum & Chemical Sales Inc New Holland Metals Co Nichols wife & Aluminum Co Reynolds Metals Co Building Prod-UCTS DIV Subtractions Ten Render Co Southern States Iron Roofing Co Tiffin Art Metal Co

#### ROOFING, ALUMINUM, CORRUGATED

CECO STEEL PRODUCTS CORP

APRIL 1953

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New Holland Metals Co REYNOLDS METALS CO BUILDING PROD-UCTS BIV States Iron Roofing Co

#### ROOFING, ASBESTOS CEMENT

CEMERVI CAREY (PHILIP) NFG CO Ebret Magnesia Mig Co FLUHTKOTE CO JUHNS-MANVILLE CORP KEASBEY 4. MATTISON CO Logan-Long (o Pabeo Products Ine RUBEROID CO Seaboard Plastics Corp Supradur Corp

#### **ROOFING, ASBESTOS** CORRUGATED

# ASBESTONE CORP CAREY (PHILIP) MFG CO FLINTKOTE CO JOHNS-MANVILLE CORP KEASBEY & MATTISON CO RUBEROID CO

**ROOFING, ASPHALT ROLL** Amalgamated Roofing Co American Asphalt Roof Corp BARRETT DIV ALLIED CHEMICAL & DYE

CO BIRD & SON INC CAREY (PHILIP) MFG CO CAREY (PHILIP) WEG CU CELOTEX CORP CENTAIN-TEED PRODUCTS CO FLINTKOTE CO Ford Roofing Products Co Globe Roofing Products Co Ine Gold Seal Roofing Co JOHNS-MANYILLE CORP Koupers Co Ine Lehon Co Logan-Long Co NATIONAL MFG CORP Nelson (BF) Mfg Co Pabeo Products Inc Protective Papers Inc RUBERGID CO GU balt Products Inc TEXAS CO U S GYPSUM CO

### ROOFING, BUILT-UP, MATERIALS FOR

Abesto Mfg Corp Aluminum Building Products AMERICAN ASPHALT ROOF CORP BARRETT DIV ALLIED CHEMICAL & DYE BARRETT DIV ALLIED CHEMICAL CO BIRD & SON INC CABOT (SAMUEL) INC CAREY (PHILIP) NFG CO CELOTEX CORP CERTAIN-TEC PRODUCTS CORP FLINTKOTE CO FLINTKOTE CO Ford Roofing Products Co JOHNS-MANVILLE CORP Co Ine Lehon Co New Holland Metals Co OWERS-CORNING FIBERGLAS CORP Relity Tar & Chemical Corp Ruberolo Co TEXAS CO U S GYPSUM CO

**ROOFING, CONCRETE SLAB** Cemenstone Co Price Brothers Co

#### **ROOFING, COPPER**

CECO STEEL PRODUCTS CORP CHASE BRASS & COPPER CO Hussey (C G) & Co INLAND STEEL PRODUCTS CO

#### ROOFING, SEALERS, CORRUGATED

Fabricated Products Co Servicised Products Corr

#### **ROOFING, STEEL**

Aluminum Co of America AMERICAN STEEL & WIRE CO Armeo Steel Corn BERGER MFG DIV REPUBLIC STEEL CORP CECO STEEL PRODUCTS CORP Chemical Supply Co Chemey Industries Childers Mfg Co Cincinnati Sheet Metal & Boofing Co Columbia Steel Co Continental Steel Corp

Cupples Co Edwards Mfg Co FENESTRA BUILDING PRODUCTS FOLLANSBEE STEEL CORP -Pioneer Steel Corp ite City Steel Co Gary-Pie Granite Colden Illinois Zine Co INLAND STEEL PRODUCTS CO International Nickel Co KAISER ALUMINUM & CHEMICAL SALES INC INC Klauter Mfg Co Lyon-Conkin & Co Inc Mahon (& C) Co Mid-States Steel & Wire Co New Holland Metals Co NetHOLS WIRE & ALUMINUM CO Revres Steel & Mfg Co Revres Steel & Mfg Co Revres Steel & Comp Revere Copper & Brass Inc ST PAUL CORRUGATING CO Southern States Iron Roofing Co TENNESSEE COAL IRON & RAILROAD CO

TIMIN ART METAL CO TRUSCON STEEL CO UNITED STATES STEEL CO

#### **ROOFING, STEEL, ASPHALT** COATED

Cheney Industries Plasteel Products Co

#### **ROPE. COTTON**

P ROPE, COTION Archer (A W) Co Ine Astrony Co Barba (C Co Britan (John H) & Co Ine Lambeth Rope Corp Puritan Cordage Mills Raucher Mfg Co Ine SAMSON CORDAGE WORKS Southern Mills Corp Turner & Stanton Co Whitaker (William D)

#### **ROPE, HEMP, MANILA & IAZIZ**

SISAL American Ladder Co American Tent & Awning Co Archer (A W) Co Archer (A W) Co Archer (A W) Co Archer (A W) Co Calung Rope Works Inc Columbian Bope Co Coupies Co Coupies Co Fitter (Edwin H) Co Fitter (Edwin H) Co Hoffman Lion Mills Loe Hoffman Lion Mills Loe Hoffman Lion Mills De Hoffman Lion Mills De Hoffman Cordage Co New Bedford Cordage Co Rauscher Mg Co Rauscher Mg Co Rauschen Forger (John) Co Raucher Mig Co Rauschenberger (John) Co St Louis Cordage Mills Tubbs Cordage Co Turner & Stanton Co Wall Rope Works Ine Walterbury Rope Co Whitaker (William B) Whitaker (William B)

#### **ROPE, WIRE**

erican Cable Div American Chain & Cable Am AMERICAN STEEL & WIRE CO U S STEEL CORP SUB Bethlehem Steel Co Broderick & Bascom Bone Co COLORADO FUEL & IRON CORP Columbia Steel Co Hazard Wire Bope Div American Chain & Cable Co MacWhyte Co Roebling's (John A) Sons TENNESSEE COAL IRON & RAILROAD CO

#### ROUTERS, ELECTRIC HOME-CRAFT

Chicago Wheel & Mfg Co DE WALT INC Dumore Co Duro Metal Products Co HURTICANE MACHINE WORKS PORTER-CABLE MACHINE CO STANLEY ELECTRIC TOOL DIV STANLEY WORKS Walker-Turner Co Div Kearney & Trecker Co

#### **RULES, BOARD LUMBER-**MEN'S

Buck (Frank R) & Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

LUFKIN RULE CO STANLEY TOOLS DIV STANLEY WORKS

RULES, BOXWOOD LUFKIN BULE CO

#### **RULES, FOLDING**

RULES, FOLDING
 Distance (Expend) Co
 Eagle Rule Mfg Corp.
 Economy Norelity & Printing Co
 Evans 4 Co
 Glazient 'Torelity & Printing Co
 International Twist Drill Corp.
 KEUFFEL & ESSER CO
 LUFKIN RULE MFG CO INC
 STANLEY TOOLS DIV STANLEY WORKS
 Starrett (L S) Co
 WARREN-KNIGHT CO
 Woodmark Industries Inc

#### **RULES, SLIDE**

Dietzgen (Eugene) Co KEUFFEL & ESSER CO Lawrence Engineering Set Lawrence Engineering Serv Multi-Aid Computer Corp Pickett & Eckel rulas Union Tool Co

#### **RULES. STEEL**

P ROJES, SIEEL Brown & Shampe Mfg Co CARLSON & SULLIYAN INC Eagle Rule Mfg Corp Economy Novelty & Printing Co EVANS & CO KEUFFEL & ESSER CO LUFKIN RULE CO MASTER RULE MFG CO INC Millers Falls Co Ox-Wall Tool Co Dox (Juntus) & Sons 0x-Wail Tool Co Boe (Justus) & Sons Shedd-Brown Mfg Co STANLEY TOOL DIV STANLEY WORKS Starrett (L S) Co Union Tool Co Woodmark Industries Ine

SAFES, BUILT-IN WALL

Diebold Inc Dudley Lock Corp Gabriel Steel Co Meilink Steel Safe Co Mosier Safe Co REMINGTON RAND INC

#### SALAMANDERS

Aeroil Products Co American Steel Works DANIELS (C R) INC Diener (George W) Mfg Co Donley Brothers Jackson Mfg Co Mohawk Asphalt Heater Co Ohio Stove Co Unique Mfg Co Inc

SAND, SILICA WHITE Crystal Silica Co Tamms Industries Inc

#### SANDERS, BELT, DRUM, SPINDLE & DISC

AMERICAN FLOOR SURFACING MACHINE ATLAS PRESS CO BEACH MIG CO BLACK & DECKER MFG CO BOICE-CRAWE CO Chicago Pneumatic Tool Co Curtis Machine Corp DE WALT INC Elector College & Co VE WALT INC Corp Eatron Calson & Co HOLF NFG CCT PNEUMATIC TOOL CO INDEFENDENCE LEETHIC TOOL CORP MILWORKE LEETHIC TOOL CORP MILWORK State Too National Ar Sander Inc National Ar Sander Inc National Art Sander Inc Oliver Machinery Co PORTER-CABLE MACHINE CO Reid-Way Inc ROCKWELL MFG CO DELTA POWER TOOL DIV Shopmaster Inc SKIL CORP Walker-Turner Co Div Kearney & Trecker Corp Wallace (J D) & Co Yates-American Machinery Co

#### SANDERS, ELECTRIC, PORT-ABLE

AMERICAN FLOOR SURFACING MACHINE CO BLACK & DECKER NFG CO BRADFORD MACHINE TOOL CO Chicago Pneumatic Tool Co Clarke Sanding Machine Co Consolidated Machine & Supply Co Detroit Surfacing Machine Co

DREMEL MFG CO General Floor Craft Inc INDEPENDENT PNEUMATIC TOOL CO Jiterbug Bander Co Kent Co Inc Mall T904 CO Merit Products Inc Millers Fails Co Millers Fails Co Millers Fails Co Portable Electric Tools Inc PostER-CABLE MACHINE CO RED DEVIL TOOLS Hoummaire Inc Shopmaster Inc SKIL COMP Speedway Mirg Co STANLEY TOOLS DIV STANLEY WORKS Eterling Tool Products Co SYNTROM CO

#### SANDERS, FLOOR

AMERICAN FLOOR SURFACING MACHINE CO Atlas Floor Surfacing Machinery Corp Clarke Sanding Machine Co Florboss-Habit Co General Floor Craft Inc Hilger Co HOLT MFG CO Lincoln-Schlueter Floor Machinery Co Inc Master Woodworker Mfg Co RED DEVIL TOOLS Reid-Way Corp Phopmaster Inc SKIL CORP

#### SASH BALANCES

Accele sualt Balance Co Air-Tite Window Stay Co ALLMETAL WEATHERSTRIP CO Aluminum Window Corp CALDWELL WFG CO Defiance Metal Weatherstrip Co Dorhin Metal Strip Mfg Co Duplex Inc Sash Balance Co Dorbin Metal Strip and Co Duplex Inc Fabry (W H) Mfg Co Grand Rapids Hardware Co Ideal Brass Works Inc Industrial Iron Works Leidgen Specialty Co MASTER METAL STRIP SERVICE INC Milwaukee Stamping Co NATIONAL LOCK CO Weatherstrip Mfg Co Protex Weatherstrip Mfg C Pullman Mfg Co Robbins Mfg Co Nock Island Millwork Co Samson Products Co Schumacher (F E) Co Star Sash Balance Corp TURNER & SEYMOUR MFG CO Unique Balance Co Inc Warnics Products WEATHERPROOF PRODUCTS CORP Western Foundry Co ZEGERS INC

#### SASH CORD, FIBER

Archer (A W) Co Ine Cleveland Mill & Power Co Circuisand Mine Co Probe Co Probe Co Graham (John H) & Co Ine Graham (John H) & Co Ine Granite Cordage Co Hoffman Lion Mills Co Ine Hooper (William E) & Sons Co Puritan Cordage Mills Raucher William E) & Sons Co Rocky Mount Cord Co SAMSON CORDAGE WKS Silver Lake Co Silver Lake Co

# SASH CORD, WIRE

Bethlehem Steel Co COLORADO FUEL & IRON CORP MacWhyte Co Parker (S) Hardware Mfg Corp Roebling's (John A) Sons Co Southern Mills Corp Unson-Walton Co nson-Walton Co VICKWIRE SPENCER STEEL DIV COLO-RADO FUEL & IRON CORP

#### SASH & DOOR, CUT STOCK, PONDEROSA

Burke Millwork Co Hines (Edward) Lumber Co WEYERHAEUSER SALES CO

# SASH, GREENHOUSE Burke Millwork Co Cole Mfg Co Metropolitan Greenhouse Mfg Corp Morgan Co

#### SASH HOLDERS

Arrow Mfg Co CORBIN (P & F) DIV AMERICAN NDWE CORP Ideal Brass Works Leidgen Specialty Co

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Rockford Sash Holder Inc Roger Co Inc Vikre (J N) Co Inc

#### SAW MILLS, MACHINERY FOR

FUR ALLIS-CHALMERS MFG CO American Sawnill Machine Co American Woodworking Machine Co Chain Belt Co of Milwaukee Champion Blower & Forge Co Chase Turbine Mfg Co Enterprise Co Farquhar (A B) Co Hyster Co Industrial Iron Works Mitts & Merrill Tower (R J) Iron Works Turner Mfg Co

#### SAW REPAIRS AND ADJUST-MENTS

MENIS Atkins (E C) Div Borg Warner Corp Chattanooga Saw Works Corley Mg Co Cunningham Machinery Corp DISSTON (MENRY) & SONS INC Hoe (B) & Co Inc Huther Brothers Saw Mfg Co Inc Lippert (E T) Saw Co Miner (J H) Saw Mfg Co Miner (J H) Saw Mfg Co Miner (J H) Saw Mfg Co Miner & Son Saw Works

#### SAW SETS

Atkins (F.C.) Dis Borg Warner Corp Beaver Mig Co Corley Mig Co Disston (Henry) & Sons Ine Hanchett Mig Co Hoe (R) & Co Ine Huther Brothers Saw Mig Co Ine Millers Falls Co Sandvik Saw & Tool Corp SIMONDS SAW & STEEL CO Smith (Seymour) & Son STANLEY TOOLS DIV STANLEY WORKS Wardwell Mfg Co Yates-American Machine Co

#### SAW SWAGES & SHAPERS

Atkins (E C) Div Borg Warner Corp Corley Mfg Co Disston (Henry) & Sons Inc Hanchett Mfg Co Huther Brothers Saw Mfg Co Inc Shopmaster Inc SIMONDS SAW & STEEL CO Wardwell Mfg Co

#### SAWS, BAND

ALLIS-CHALMERS MFG CO American Woodworking Machine Co Atkins (EC) Div Borg Warner Corp ATLAS PRESS CO BOICE-CRAME CO AILAS FALSS CO BUICE - CHARKE CO BUICE - CHARKE CO BUICE - CHARKE CO Chantanous Saw Works C H & E Mic Co Consolidated Machinery & Supply Co Ltd Disaton (Henry) & Sons Inc Duro Metal Products Co Fay (J A) & Exan Co FORSEER MFS CO Foster Mig Co Graham (John H) & Co Inc MESTON & ANDERSON DIV ST PAUL FOUNDY & MFC CO Hos (B) & Co Inc Lippert (E T) Saw Co Michenough Mig Co Milen Falls Co Oliver Machinery Co Oliver Machinery Co Oliver Machinery Co PARKS WOODWORKING MACHINE CO ROCKWELL MFG CO DELTA POWER TOOL DIV Shopmaster Inc SIMOMOS SAW & STEEL CO Southern Saw Works Starrett (L. S) Co Toolkraft Com Div Kearney & Trecker Corp Walker-Turner Div & Co Walance (J. Di & Co Woods (S. A) Machine Co Yates-American Machine Co

#### SAWS, BENCH

American Woodworking Machine Co Atkins (E C) Div Borg Warner Corp ATLAS PRESS CO ATLAS PRESS va-Beach Mig Co BOICE-CRANE CO CH & E Wire Co Consolidated Machinery & Supply Co Heston & ANDERSON DIV ST PAUL FOUNDRY & MFG CO Vester Woodworker Mig Co Oliver Machinery Co PARKS WOODWORKING MACHINE CO

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

#### SAWS, BUCKING

Atkins (E C) Div Borg Warner Corp Cummings Machine Works Disston (Henry) & Sons General Steel Warehouse Co Inc Gensco Tool HOMELITE CORP i) Co

Lowther (Harry A) Co MALL TOOL CO Mill & Mine Supply Co Ohien-Bishop Co Sandvik Saw & Tool Corp SIMONDS SAW & STEEL CO

#### SAWS, CHAIN, TREE FELLING & BUCKING, POWERED

Atkins (E C) Div Borg Warner Corp Commings Machine Works Disston (Henry) & Sons Inc General Steel Warehouse Co Genseo Tool Div Hansen Machinery & SunDiv Co Hansen Machinery & Supply Co HOMELITE CORP Jacques Parconer Jacques Power Naw Co Lombard Governor Corp Lowther (Harry A) Co Mall Tool Co Mill & Mine Supply Ine Ottawa Mrg Co PORTER CABLE MACHINE CO Reed-Prentice Corp Vulcan Iron Works Co Witte Engine Works Div Oil Well Supply Co.

#### SAWS, CHAMFERING

Atkins (E C) Div Borg Warner Corp DE WALT INC Huther Brothers Saw Mfg Co SIMONDS SAW & STEEL CO

#### SAWS, CIRCULAR DADO

American Saw Mill Machinery Co American Woodworking Machine Co Atkins (E C) Div Borg Warner Corp ATLAS PRESS CO ATLAS FREE Beach Mfg Co BOICE-CRANE CO BOICE-CRANE CO Chattanoga Saw Works DEWALT INC Disston (Henry) & Sons Ine Fay (J A) & Egan Co Hoe (R) & Co Saw Mfg Co Huther Brothers : MALL TOOL CO Master-Taper Co Master Woodworker Mfg Co Media Machine Works Inc Ohlen-Bishop Mfg Co Perter CABLE MACHINE CO ST PAUL FOUNDY & MFG CO Shopmaster Inc SIMONDS SAW & STEEL CO Syracuse Alloy Metals Corp Walker-Turner Co Div Kearney & Trecker Corp Wallace (J D) & Co Wilson Saw Div Media Machine Works Yates-American Machine Co

SAWS, CIRCULAR, INSERTED

# TOOTH **IUUIN** American Saw Mill Machinery Co American Woodworking Machine Co Atkins (E C) Die Borg Warner Corp Chattanooga Saw Works Ceriery Mig Co **DE WALT INC** Disston (Henry) & Gons Ine Hoo (R) & Co Huther Brothers Saw Mig Co Lingert (E, T) Same Co NOTE: A Construction of the construction of th

#### SAWS, CIRCULAR, SOLID TOOTH

LUCYT: Albertson & Co Ine American Naedworking Machine Co Atkins (F. C) Div Borg Warner Corp Beach Mfg Co BolCE-CRANE Co Chattanooga Saw Works

 ROCKWELL MFG C0 DELTA POWER TOOL
 Consolidated Machinery & Supply Co Lid Carley Mfg Co

 Binomanter Inc Walker-Turner Co Div Kearney & Trecker Orp Wallace (J D) & Co
 Diston (Henry) & Sons Inc File & Stowell Co

 Walker-Auror Co Div Kearney & Trecker Wallace (J D) & Co
 Heat Co

 Walkers (K) Machine Works Yates-American Machine Co
 Holmes (E & H) Machinery Co Inc Hutchinson Mfg Co Lippert (E T) Saw Co

 SAWS. BUCKING
 Lippert (E T) Saw Co Lippert (E T) Saw Co

 Lippmann Engine MALL TOOL CO Master Woodworker Mfg Co Media Machine Works Inc Miner 4: Son Saw Works Ohlen-Bishop Co PARKS WOODWORKING MACHINE CO Power (L) & Co PTI Inc ROCKWELL MFG CO DELTA POWER TOOL DIV ST PAUL FOUNDY & MFG CO Sandvik Saw & Tool Corp Shopmaster Inc SIMONDS SAW & STEEL CO Walker-Turner Co Div Kearney & Trecker Corp Walkare (J D) & Co Wheland Co Wilson Wheland Co Wilson Saw Div Media Machine Works Yates-American Machinery Co

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#### SAWS, CUTOFF, POWERED

American Woodworking Machine Co Atkins (E.C.) Div Borg Warner Corp Beach Mfg Co Chattanoga Saw Works Chattanoga Saw Works C H & E Mig Co Consolitated Machinery & Supply Co Corist Machinery Co Corist Mig Co DEWAI 7 Loc Disston (Henry) & Sons Inc Far (J A) & Egan Co Forsberg MFG CO Frick Co HESTON & ANDERSON DIV ST PAUL FOUNDRY & MFG CO FOURDAY & MFG CO FOURDAY & MFG CO Hoe (R) & Co Huther Brothers Saw Mfg Co Lippert (E T) Saw Co Master Woodworker Mfg Co Mastison Machine Works Media Machine Works Media Machine Works Mien-Rishop Co Olicer Machinery Co Porter (C) Machinery Co FOTCH CO Machinery Co BOCKWELL MFG CO DELTA POWER TOOL OV DIV ST PAUL FOUNDRY & MFG CO Shopmaster Inc SIMONDS SAW & STEEL CO Stetson-Ross Machine Co Walker-Turner Co Div Kearney & Trecker

Walker-Turner Co Div Kearney & Corp Corp Walkace (J D) & Co Wilson Saw Div Media Machine Worka Woods (S A) Machine Co Yates-American Machine Co

#### SAWS, FOLDING Goldblatt Tool Co

#### SAWS, GROOVING

P SAWS, GROOVING American Woodworking Machine Co Atkins (E C) Div Borg Warner Corp Beach Mig Co Chattanoga Saw Works DEWALT INC Disston (Henry) & Sons Inc Fay (J A) & Egan Co Hoe (B) & Co Huther Brothers Saw Mig Co Misener Mig Co Misener Mig Co Olden-Bishop Co Shopmaster Inc Shopmaster Inc SIMONDS SAW & STEEL CO Walker-Turner Co Div Kearney & Trecker

Walker-Turner Co Div Kearuer a J Corp Walkace (J D) Mfg Co Wilson Saw Div Media Machine Works Woods (S A) Machine Co Yates-American Machine Co

#### SAWS, HACK

Atkins (EC) Div Borg Warner Corp Bridgeport Hardware Mfg Corp Clemson Brothers Inc Consolidated Tool Works Prescent Tool Co Sons Inc Disston (Henry) & Sons FORSBERG MFG CO Graham (John H) & Co Graham (John H) K D Mfg Co Lipe-Rollway Corp isto MILWAUKEE ELECTRIC TOOL CORP Proto Tool Co SIMONDS SAW & STEEL CO Syracuse Alloy Metals Corp Syracuse Alloy Metals Starrett (L S) Co TRI-SAW CORP Union Mfg & Gauge Co

United Wire Goods Mfg Co Inc Victor Saw Works Inc Wilson Hardware Mfg Co

#### SAWS, HAND

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P JAWJ, HAND Allway Mig Co American Saw & Mig Co Athins 4: C O Div Borg Warner Corp Caperell Mig Co Visiston (Horry) & Sons Ine Coldblatt Tool Co Graham (John H) & Co Ohlen-Bishop Mig Co Pennsylvania Saw Corp Sandvik Saw & Tool Corp

#### SAWS, HOLE

BLACK & DECKER MFG CO Circo Tool Co Disston (Henry) & Sons Ine Millers Falls Co Missener Mfg Co

#### SAWS, JIG, POWERED

F JATT J, JIG, FUWERE ATLAS PRESS CO BEACH MIG CO BLACK & DECKER MFG CO BOICE-CRAME CO DE WALT INC DISSTON (HENRY) & SONS INC DREMEL MFG CO Oliver Machinery Co Machinery Co ister Inc Walker-Turner Co Div Kearney & Trecker Corp

#### SAWS, MITER

American Woodworking Machine Co Atkins (E C) Div Borg Warner Corp BOICE-CRANE CO DEWALT INC DEWALT INC Disston (Henry) & Sons Inc Hoe (R) & Co Huther Brothers Saw Mfg Co M Master Woodworker Mfg Co MILWAUKEE ELECTRIC TOOL CORP Ohlen-Bishop Co PORTER CABLE MACHINE CO Ponten CABLE MACHINE CO SIMONDS SAW & STEEL CO SIMONDS SAW & STEEL CO STANLEY TOOLS DIV STANLEY WORKS Walker-Turner Co Div Keaney & Treck Corp Walkaca Saw Div Media Machine Works

#### SAWS, MULEY

Atkins (E C) Div Borg Warner Corp. Ohlen-Bishop Co

### SAWS, PORTABLE ELECTRIC

AMERICAN FLOOR SURFACING MACHINE CO American Woodworking Machine Co Atasins (EC) Div Borg Warner Corp Beach Mig Covers MFG CO BLACK & DECKEN MFG CO BLACK & DECKEN HE TOOC Consolidated Machinery & Supply Co Ltd Commiss-ChicAGO CORP CUMMINS PORT-ABLE TOOLS DIV DEWALT INC DREMEL NFG CO PORSBERG MFG CO HESTON & ANDERSON INDEPEADENT PREJMATIC TOOL CO MALL TOOL CO Millers Fails Co Sillers Fails Co AMERICAN FLOOR SURFACING MACHINE MILWAUKEE ELECTRIC TOOL CO Portable Electric Tools PORTER-CAULE MACHINE CO R C S TOOL SALES CORP Reed-Prentice Corp SKIL CORP Speed-Way Mfr Co SKIL CORP Speed-Way Mfg Co Stanley Electric Tools Div Stanley Works Syntron Co TRI-Saw Corp I S Planter U S Electrical Tool Co Van Dorn Electric Tool Co Vulcan Iron Works Co Wallace (J D) & Co

#### SAWS, RADIAL

American Woodworking Machine Co Beach Mig Co Consolidated Machinery & Supply Co COMSTRUCTION MACHINERY CO CUMMINS-CHICAGO COMP CUMMINS PORT-ABLE TOOLS DIV DEWALT INC Flyssaw Co Co (R W) Co exsaw ndrick Master Woodworker Mfg Co Porter Cable Machine Co Red Star Products Inc Rockwell MFG Co Delta Power Tool DIV Shopmaster Inc SKIL CORP ter-Turner Co Div Kearney & Trecker Corp Wallace (J D) & Co Wilson Saw Div Media Machine Works

APRIL 1953

#### SAWS, RIP

✓ JATTJ, RIF Atkins (E C) Div Borg Warner Corp Beach Mig Co Chattanooga Saw Works C H & E Mig Co Consolidated Machinery & Supply Cc C H & E Consolidated Machinery Corley Mfg Co Corley Mfg Co Coriey Mig Co Dependable Machine Co DEWALT INC Diston (Henry) & Sons Inc Fay (J A) & Egan Co Fordberg Mig Co Greenlee Tool Co Huther Brothers Saw Mfg Co Master Woodworker Mfg Co Newman Machine Co Oliver Machine Co Oliver Machinery Co Shopmaster Inc SIMONDS SAW & STEEL CO Wallace (J D) & Co Wilson Saw Div Media Machine Works Yates-American Machine Co

SAWS, SCROLL ROCKWELL NFG CO DELTA POWER TOOL master Inc Shot

#### SAWS, SWING

American Woodworking Machine Co Beach Mfg Co C H & E Mfg Co Beach Mfg Co Consolidated Machinery & Supply Co Corneth Machinery Co Order Mfg Co Disston (Henry) & Sons Ine Fay (J A) & Egan Co Flier & Stowell Co HESTON & ANDERSON DIY ST PAUL FOUNDRY & MFG CO Hoe (R) & Co Ine Holmes (E & B) Machinery Co Ine Lane Mfg Co Master Woodworker Mfg Co Newman Machine Co Oliter Mission Co Oliter Machinery Co Shopmaster Ine Oliver Machinery Co Shopmaster Inc Tannewitz Works Woods (S A) Machine Co Yates-American Machine Co

# SAWS, TILTING ARBOR

TABLE American Woodworking Machine Co ATLAS PRESS CO Reach Mac ATLAS PRESS Beach Mfg Co Bolce-CarAnte CO Bolce-CarAnte CO C H & F Mfg Co Valued Machinery & Supply Co Definis Supply Co Fay (J A) & Egan Co Givenele Tool Co Master Woodworker Mfg Co ROCKWELL MFG CO DELTA FOWER TOOL DIV ST PAUL FOUNDRY & MFG CO Shopmaster Inc Walker-Turner Co Div Kearney & Trecker Wallace (J D) & Co WHITNEY (BAXTER D) & SON INC Yates-American Machine Co

#### **SAWS & CUTTING WHEELS** MASONRY

Atkins (E C) Div Borg Warner Corp Champion Mfg Co CLIPPER MFG CO CONSTRUCTION MACHINERY SALES CO Ennis Supply Co EVANS (ROBERT G) CO EVEREADY BRIKSHAW C CO Martin Fireproofing Co Master Woodworker Mfg Co PORTER CABLE MACHINE CO Stone Machinery Co Inc

#### SCAFFOLDING, SCAFFOLDS, AND BRACKETS

ARU DRACKELS Acme Scaffold Co Inc Advance Equipment Mfg Co Alax Building Bracket Co American Ladder Co Anderson (John E) Co Baberck (W W) Co Baberch (W W) Co Baberch (W W) Co Baberch (W W) Co Baberch (M W) Co B BIL-JAX CO Brever Brothers Whiling & Co Caster Mold & Machine Co Clark (J B) Co Conver Steel & Wire Co Du-All Scaffold Bracket Co Flischer Bracket Co Flint (A W) Co Gabriel Steel Co

Goldblatt Tool Co Geshen Mfg Co Hoitsma (P) Adjustable Scaffold Bracket Co Holland Ladder & Mfg Co Holiand Ladder & Mig Co Holiand Ladder & Mig Co Latret Englo Michigan Ladder Co Moulton Ladder To Noution Ladder A Bracket Co PATENT SCAFFOLDING CO INC PITTSBURGH PLATE CLASS CO Reliable Jock Co Reliable Jock Co SaFWAY STEEL PRODUCTS INC STEADFAST EQUIPMENT CO STEADFAST MENG CO MAGNER MFG CO Universal Manufacturing C WAGNER MFG CO Wilson-Albrecht Co Woodenware Products Corp

#### SCALES, PLATFORM, PORT-ABLE

ADLE . American Scale Co Detecto Scales Inc Div Jacobs Brothers Co Fairbanks Morse & Co Hanson Scale Co Johnson (C S) Co Toledo Scale Co

#### SCRAPERS, FLOOR

Fletcher Terry Co Brothers Co leller Brothers Hook Scraper Mfg Co Millers Falls Co Millers Fails Co RED DEVIL TOOLS STANLEY TOOLS DIV STANLEY WORKS Starrett (L S) Co

#### SCRAPERS, FOOT

Decatur Iron & Steel Co Erco Mfg Co Grey Iron Casting Co Lawrence Brothers RICHARDS-WILCOX MFG CO

#### SCRAPERS, PAINT

Bridgeport Hardware Mfg Corp Clarke Sanding Machine Co Fletcher Terry Co Holler Broth HOOK SCRAPPER MG CO PITTSBURGH PLATE GLASS CO RED DEVIL TOOLS STANLEY TOOLS DIV STANLEY WORKS

#### SCRAPERS, POWERED

ALLIS-CHALMERS MFG CO BUCYRUS-ERIE CO Caterpillar Tractor Co Cummins Engine Co Inc WHITNEY (BAXTER D) & SONS INC

#### SCRAPERS, WOOD

Atkins (E C) Div Borg Warner Corp Black Panther Tool Co Disston (Henry) & Sons Inc Fletcher Terry Co Glaziers' Tool Mfg Corp Heller Brothera Ce Lamson & Goodnow Mfg Co Millers Fails Co RED DEVIL TOOLS RED DEVIL TOOLS Sandrik Saw & Tool Corp Warner Mfg Co

#### SCREEDS, METAL BASE

Y SAREEDS, MEIAL DA Alabama Metal Lath Co Allen Steel Producta BOSTWICK STEEL LATH CO CECO STEEL PRODUCTS COR INLAND STEEL PRODUCTS CO INLAND STEEL PRODUCTS CO NATIONAL GYPSUM CO PENN METAL CO INC Richmond Screw Anche TRUSCON STEEL CO U S GYPSUM CO or Co Inc eling Corrugating Co

SCREEN WIRE STRETCHERS FASTENER CORP Markwell Mfg Co

#### SCREENING, INSECT WIRE

Ace Window Screen Co of America Aluminum Co of America Aluminum Co of America American Brass Co American Wire Fabrics Corp Cambridge Wire Cloth Co CECO STEEL PRODUCTS CORP CHASE BRASS & COPPER CO Clark Wire & Supply Co Clinton Wire Cloth Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

CURTIS COS INC Cyclone Fence Dir American Sicel & Wire Co Driver-Harris Co Gilbert & Bennett Mfg Co Hanover Wire Cloth Dir Continental United Industrie Co Inc Value Reviewer Co Tindustries Co Jue Heitus Brothers Co Jeliuf (C 0) Mg Corp KAISER ALUMINUM & CHEMICAL SALES KEYSTOME STEEL & WIRE CO KEYSTOME WIRE CLOTH CO Newark Wire Cloth Co Newark Wire Cloth Co New York wire Cloth Co Nichols wire & Aluminum Co Orange Screen Co Pacific Wire Products Co Pacific Wire Products Co Pacific Wire Products Co Pacific Wire Co Inc Regnolid Wire Co Inc Regnolid Wire Co Boelling's (John A) Sons Co Sences and Fabricated Michals Co Sences Wire & Mig Co Sence Wire & Mig Co Sence Wire & Mig Co Senth (F P) Wire & Iron Works Shardard Wire Cloth & Sereen Co Valentine Equipment Co Valentine Equipment Co Valentine Engipment Co Warp Brothers Wickswire Brothers Inc Warb Brothers Ine Wickwire Brothers Ine RADO FUEL & IRON CORP Wilson (L S) Mig Co

#### SCREENING, PLASTIC, WIRE REINFORCED

CELINFURCED Celances Corp of America Plastics Div Dow Chemical Co Firstone Industrial Products Div Firestone The & Rubber Co LUMITE DIV CHICCEEE MILLS INC Plastic Worm Products Numerical FilePLACE CO Swift MF Co Warp Brothers

SCREENS, CHIMNEY Donley Brothers

#### SCREENS, TENSION

Columbia Mills Inc KEYSTONE WIRE CLOTH CO Lockhart Mfg Corp New York WIRE CLOTH CO RUDIGER-LANG CO Weatherstrip Mfg Co

#### SCREWDRIVERS

Barcalo Mg Co BLACK & DECKER MFG CO Bridgeort Hardware MG Corp Crescent Tool Co Damascus Steel Products Corp Disston (Henry) & Sons Inc Fairmount Tool & Forging Co FORSBERS, MFG CO Fuller Tool Co Glaziers' Tool Mfg Corp Lizziers Toel Sing Corp Greenier Toel Co MALL 180L CO Mayhew Steel Products Inc Meghisto Toel Co Millers Fails Co Owatonna Toel Co Owatonna Toel Co Owatonna Toel Co Praker Mig Co Praker Mig Co Proto Toel Co Proto Toel Co Proto Toel Co Rainey-Toelo Read & Prince Mig Co Rugol Co \_\_\_\_ Rugol Co SKIL CORP Slaymaker Leek Co STANLEY TOOLS DIV STANLEY WORKS Tuck Mfr. Co Union Hardware Co Union Hardware Co United Wire Goods Mfg Co Viciek Tool Co Wide Prop Forge & Tool Co

#### SCREWDRIVERS, PORTABLE, ELECTRIC

BLACK & DECKER MFG CO Chicago Pneumatic Tool Co Glaziers' Tool Mfg Co INDEPENDENT PNEUMATIC TOOL CO Ingersoll-Rand Co MALL TOOL CO Millers Falls Co MILWAUKEE ELECTRIC TOOL CORP STANLEY ELECTRIC TOOLS DIV STANLEY WORKS SYNTRON CO U S Electrical Tool Co

#### SCREWDRIVERS, RATCHET

American Swiss File & Tool Co Greenlee Tool Co Kipton Industries Millers Falls Co North Brothers Mfg Co Div Stanley Tools Ox-Wall Tool Co Ox-Wall Tool S DIV STANLEY WORKS

#### ▶ SCREWS

Ajax Hardware Mfg Corp American Serew Co Atlantic Serew Works Atlas Bolt & Serew Co Braun (J G) Co Braun (J G) Co Bridgeport Brass Co CHASE BRASS & COPPER CO Clark Brothern Bolt Continental Screw Co EAGLE LOCK CO Co EAGLE LOCK CO Eleo Tool & Serew Corp General Steel Warehouse Co Genseo Tool Div INDEPENDENT WAIL & PACKING CO INDEPENDENT NAIL & PACKII Lamon & Sessions Co National Guard Froducts Ine WATIONAL LOCK Co PAINE COMPANY PAINE COMPANY Parker (S) Hardware Mfg Corp Phonel Mfg Co Houst Margare Mfg Co Buckford Screw Paduets Co Storage Screw Paduets Ine Continuence Hardware Mfg Co Stronghold Screw Paduets Ine United Screw & Bolt Corp

#### SEALERS, SYNTHETIC RESIN MONSANTO CHEMICAL CO WESTERN DIV

#### SEPTIC TANK FERMENTA-TION COMPOUNDS

Thomas Sanitary Products Co

#### SEWER JOINT COMPOUNDS

erican Vitrified Products Co ti-Hydro Waterproofing Co FLINTKOTE CO JOHNS-MANVILLE CORP Nukem Products Corp Reilly Tar & Chemical Corp Robinson Clay Product Co Universal Sewer Pipe Corp

#### SHADES, PORCH

Aeroshade Co HOUGH SHADE CORP Shredwood Curtain Co Warren Shade Co

#### SHADES, WINDOW

Acroshade Co Railey & Weston Inc Bills Venetian Blind Co Percentan (Charles W) Co Clopay Co Clopay Corp Columbia Mills Inc Columbus Coated Fabrics Corp DuPont deNemours (E 1) & Co Inc Harmon (F S) Co Hartshorn (Stewart) Co HOUGH SHADE CORP Kane Miss Corp Kane Mfg Corp Volker (William) & Co

#### SHAFTS, FLEXIBLE

MALL TOOL CO Walker-Turner Co Div Kearney & Trocker Corn

#### SHAKES, CEDAR, STAINED

F JHARLS, JCDAR, JHARLD Butler-McDugall Mrg Co Lid Canadian Forest Products Ltd Hunting-Mer-rit Shingle Dis Capilano Shingle Co Ltd Calonial Cedar Co CREO-DIFT CO INC Exercit Shingle A Shinke Co Jamison Lumber & Shingle Co Maxiar Shinde Praye Co Ltd Mixiar Shinde Praye Co PERMA-PRODUCTS CO Pertiand Shingle Co Preservative Paint Co Smith (M B) Lumber & Shingle Co West Coast Stained Shingle Co WEYERMAEUSER SALES CO

#### SHAMPOO, SPRAY

T & S Brass & Bronze Works Inc

#### SHAPERS

ATLAS PRESS CO BOICE CARARE CO PORTER CABLE MACHINE CO ROCKWELL MFG CO DELTA POWER TOOL DIV Fallace (J D) & Co WHITNEY (BAXTER D) & SONS INC

#### SHARPENERS, KNIFE

Atkins (E.C.) Die Borg Warner Corp BEMR-MANNING CORP DIV NORTON CO Bridgeport Safety Emery Wh Dazey Corp Dependable Machine Co Inc Ekco Products Co MALL TOOL CO National Sewing Machine Co New England Carbide Tool Co Ine SIMONDS ABRASIVE CO DIV SIMONDS SAW & STEEL CO

#### SHARPENERS, SAW

Atkins (E C) Div Borg Warner Corp Beaver Mfg Co BELSAW MACHINE CO BELSAW MACHINE CO Chattaneoga Saw Works Disston (Henry) & Sons Inc FOLEY MFG CO FOLEY MFG C0 Huther Brothers Saw Mfg Co Inc MALL TOOL CO Oliver Machinery Co Presout Co Beed-Frentiee Corp Trepco Froducta Wardwell Mfg Co Yates-American Machine Co

SHEARS, METAL CUTTING.

FLECTRIC BLACK & DECKER MEG CO

#### ▶ SHEATHING, ASBESTOS CEMENT

Asphalt & Insulation Ine Badger Corrugating Co CAREY (PHILIP) MFG CO Davis Plywood Corp Flintkote Co Johns-Manville Corp Keasbey & Mattison Co National Gypsum Co Ruberoid Co estos Mfg Co rd Ac

#### SHEATHING, BOARD, ASPHALT, RIGID

A JTTALT, NUME ALT-O-COLO BARRETT DIV ALLIED CHEMICAL & DYE CORP BIRD & SON CAREY (PHILIP) NFG CO CELGTEX CORP CELGTEX CORP FLINTKOTE ON INSULITE DIV MINNESOTA & ONTABIO PAPER CO JOHNS-MANVILLE CORP Keystone Amphall Products Co Desan-Cong Co an-Long Co Logan-Long Co Meadows (W R) NATIONAL MFG CORP Nelson (B F) Mfg Co Plastergon Wall Board Co Protective Papers Inc Ruberoid Co U S GYPSUM CO

#### SHEATHING, BOARD, FIBER

ARMSTRONG CORK CO BUILDING MATERI-ALS DIV CAREY (PHILIP) MFG CO CELOTEX CORP CAREY (PHILIP) NPG CB CELOTEX CORP Pir-Tox, Insulating Board Co FlintNote Co HomAsote Co HomAsote Co HomAsote Co HomAsote Co HomAsote Co Joans-Martille Corp Mattomat CyPSUM Co Plasteran Wall Board Co Simpson Longing Co U S GYPSUM CO UPSON CO WOOD CONVERSION CO

#### **SHEATHING, GYPSUM**

ngier Corp Blue Diamond Corp CELOTEX CORP CERTAIN-TEED PRODUCTS CORP Cernel Rapids Plaster Co NATIONAL GYPSUM CO Pabeo Products Inc Pacific Portland Cement Co Schumacher Wall Board Corp U S GYPSUM CO

#### SHEATHING, INSULATING BOARD, TREATED

BUAKD, IKRAIED AIR-D-C2 Co ARMSTRONG CORK CO BIRD & SON INC CAREY (PHILIP) MFG CO CELOTEK CORP CONNOR LUMBER & LAND CO CERED-DIPT CO INC FLINTKOTE CO HOMASOTE CO INSULITE DIV MINNESOTA & ONTARIO PAPER CO JOHNS-MARVILLE CORP Keystone Ambail Products CO Products Co Keystone Asphalt Product Meadows (W R) Inc NATIONAL GYPSUM CO Plastergon Wall Board Co Protective Papers Inc s GYPSUM Mengel Plywoods Inc

### U S PLYWOOD CORP

#### SHEETS, ALUMINUM. CORRUGATED

Aluminum Co of America CECO STEEL PRODUCTS CORP Cupples Co New Holland Metals Co REYNOLDS METALS CO Southern States Iton Roo afine Co. es I

#### SHEETS, ALUMINUM, FLAT

Braseo Mfg Co CECO STEEL PRODUCTS CORP Cupples Co KAISER ALUMINUM & CHEMICAL SALES New Holland Metals Co MICHOLS WIRE & ALUMINUM CO REYNOLDS METALS CO BUILDING PROD-UCTS DIV Southern States Iron Booding Co

#### SHEETS, BLACK

Alan Wood Steel Co CECO STEEL PRODUCTS CORP Continental Steel Corp INLAND STEEL PRODUCTS CO REPUBLIC STEEL CORP TENNESSEE COAL INON & RAILROAD CO UNITED STATES STEEL CO Wheeling Correction Co

#### SHEETS, IRON & STEEL, GALVANIZED

Allegheny Ludium Steel Co Armeo Drainage & Metal Products Ine Badger Corrugating Co Badger Corrugating Co Bethlehem Steel Co CECO STEEL PRODUCTS CORP CECO STEEL PRODUCTS CORP Cincinnati Sheet Metal 4 Continental Steel Corp Decatur Iron & Steel Co Gary-Pioneer Steel Co INLAND STEEL PRODUCTS CO INLAND SIELL PRODUCTS C International Steel Co Klauer Mig Co Nid-States Steel & Wire Co New Holland Metals Co REPUBLIC STEEL CORP Reprose (Joseph T) & Son Inc ST FAUL CORRUGATING CO Shiendad Steel Corp TENNESSEE COAL IRON & RAILROAD CO Wheeling Corrugating Co Youngstown Sheet & Tube Co

#### SHEETS, PLASTIC

Actna Plywood & Veneer Co er Power & Paper Co Continental Can Co DAVIES (J A) & CO FORMICA CO FORMICA CO GENERAL ELECTRIC CO HASKELITE MFG CORP NATIONAL PLASTIC PRODUCTS CO Willing ALL PLASTIC FRONT CON Panelyte Die St Robus FLYWOD COMP Rohm & Haas Consp U S FLYWOD COMP WESTINGHOUSE ELECTRIC & MFG CO WOODALL HOUSTRIES

# SHEETS, STEEL,

CORRUGATED co Steel Corn Badger Corrugating Co BERGER MFG DIV REPUBLIC STEEL CORP Bethlehem Steel Co CECO STEEL PRODUCTS CORP Cheney Industries Co Cincinnati Sheet Metal & Boofing Co Continental Steel Corp Decatur Iron & Steel Co Granite City Steel Co INLAND STEEL PRODUCTS CO New Holland Metals Co REPUBLIC STEEL CORP ST PAUL CORRUGATING CO Soule Steel Co Southern States Iron Roofing Co TENNESSEE COAL IRON & RAILROAD CO UNITED STATES STEEL CO Wheeling Corrugating Co Youngstown Sheet & Tube Co

### SHELVES, REVOLVING CABINET

Ames (W R) Co CARR ADAMS & COLLIER CO

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

Lyon Metal Products Inc MULLINS MFG CORP WASHINGTON STEEL PRODUCTS INC

#### SHELVING, ADJUSTABLE SHELF

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Adams Co Busch (A G) & Co Ine Heller (W C) & Co Heller (W C) & Co Johnswood Co Knape & Vogt Mfg Co MACKLANBURG-DUNCAN CO STANDARD STEEL WORKS

#### SHELVING, GLASS

American Window Glass Co Cadillac Glass Co Columbia Metal Box Co (W C) Heller (W C) & Co LIBBEY-OWENS-FORD GLASS CO PITTSRURGH PLATE GLASS CO Ruslander & Sons Inc Warren (J D) Mfg Co

#### SHELVING. PREFABRICATED

Ames (W B) Co Hines (Edward) Lumber Co STANDARD STEEL WORKS

#### SHELVING, WOOD

Adelphian Mill Carr & Moehl Co Cole Mig Co CURTIS COS INC Engineers Plywood Products Frick-Gallagher Mig Co Heiler (W.C) & Co Hines (Edward) Lumber Co Products On Kinzua Pine Mills Co LONG-BELL LUMBER CO Mauk-Seattle Lumber Co WEYERHAEUSER SALES CO Willamette Valley Lumber Co Wilmac Metal Products

#### SHIELDS, EXPANSION BOLT

F SHIELDS, EAFARSION BULI Arro Expansion Bolt Co Consels (° & F) Div American Narb-Ware CORP Diamond Expansion Bolt Co Holub Industries Inc Paine Co Folis (J D) Mirg Co Star Expansion Products Co Inc

#### SHIELDS, TERMITE

Illinois Zine Co Potts-Farrington Co SISALKRAFT CO TIMBER ENGINEERING CO

#### SHINGLES, ASBESTOS-CEMENT

Asbestone Corporation ASBESTOS CO OF TEXAS BARRETT DIV ALLIED CHEMICAL & DYE CORP FLINTKOTE CO JOHNS-MANVILLE CORP KEASBEY & MATTISON CO NOVA SALES INC Pabeo Products Inc RUBERGID CO Smith Asbestos Products Inc Inc Supradur Corp U S GYPSUM CO

#### SHINGLES, ASPHALT

P JHINGLES, ASPHALL AMERICAN ASPHALT ROOF CORP BARRETT DIV ALLIED CHEMICAL & DYE CORP BIRD & SON INC CAREY (PHILIP) MFG CO CELOTEX CORP FLINTKOTE CO Pord Roother Products Corp Ford Roother Products Co Gold Roother Products Co Cold Roother Product Gold Seal Roofing Co JOHNS-MANVILLE CORP Lehon Co Logan-Long Co Nelson (B F) Mfg Co Broducts Inc Pabeo Products Inc RUBERGID CO Tamko Asphalt Products Inc TEXAS CO U S GYPSUM CO

#### SHINGLES, CEDAR, RED

Acme Shingle Co Ltd Agnew Lumber Co AMERICAN STAINED SHINGLE CO Arch Cape Shingle Co Ayres & Bowen Shingles Bestwood Cedar Shingle Co Ltd Bielman-Menke Shingle Co Bielman-Menke Shingle Co Bloedel Stewart & Welch Ltd B L Shingle Co Bridal Falls Shingle Co British Columbia Forest Products Ltd

AMERICAN BUILDER

Butler-McDougall Mfg Co Ltd Canadian Forest Products Ltd Hunting Mer-rit Shingle Div Canadian Western Lumber Co Ltd Capilano Shingle Co Ltd Cascade Pacific Lumber Co Chew (Joseph) Shingle Co Ltd Clearwater Shingle Co Colonial Cedar Co Colonial Cumber A LAND CO Cook County Lumber Co Cesteo.Div Co Hoc CONNOR LUMBER & LAND Cook County Lumber Co CRED-DIPT CO IMC Crescent Shingle Co Decker (A R) Shingle Co Dewlit Shingle Co Douglas Fir Wholesalern Inc Eatonville Lumber Co Far West Shingle Co Flubrer Brothern Fouler Shingle Co GEORGIA-PACIFIC PLYW00D CO Grandy Lake Shingle Co Gray Lumber & Shingle Co Gray Lumber & Shingle Co Hammerquist Shingle Co Hammerquist Shingle Co Hammerquist Shingle Co Himes (Edward) Lumher Co Homalko Logging Co Lid Horens (Edward) Lumher Co Homalko Logging Co Lid Horton Cedar Mfg Co Lid Huthigton Shingle Co Jamison Lumber & Shingle Co Jamison Lumber & Shingle Co Lake Shanmon Timber Co Lowglot Shingle Co Fowler Shingle Co LONG-BELL LUMMER CO Longlyfe Shingle Co Marche Mill Co Marona Mill Co Marona Mill Co Mark-Seattlie Lumber Co McCarter Shingle Co Ltd Midwest Jobbers Inc Miller (E C) Cedar Lumber Co Monroe Shingle Co Mt Pleasant Shingle Co Mt Pleasant Shingle Co Mt Pleasant Shingle Co Newherg Shingle Co Northwest Cedar Products Ltd Olympia Shingle Co Olympic Stained Products Co Pacific Timber Co Packwood Shingle Co PERMA PRODUCTS CO Packwood Shingle Co PERMA PRODUCTS CO Peters Shingle Co Portland Shingle Co Portland Shingle Co Rainiter Mill Co Randie Shingle Co Riverside Shingle Mills Ltd Roseburg Shingle Co B & R Shingle Co Saginaw Shingle Co Schafer Brothers Luber Mig Co Schafer Brothers Luber & Shingle Co Schafer Brothers Luber Mig Co Schafer Brothers Luber Mig Co Schafer Brothers Luber Mig Co Smith (M R) Lumber & Shingle Co Standard Shingle Co Stave Lake Cedar Ltd Super Shingle Co Thurston-Flavelle Ltd Toutle River Shingle Co Twin City Shingle Co Twin City Shingle Co Twin Arbors Lumber & Mig Co Wallace Lumber & Mig Co Wallace Lumber & Mig Co Washington Shingle Co Washington Shingle Co WEYERHAEUSER SALES CO Willapa Shingle Co Woods Creek Shingle Co

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#### SHINGLES, CEDAR, RED, STAINED

American Stained Shingle Co Canadian Forest Products Ltd Hunting-Mer-rit Shingle Div Capilano Shingle Co Ltd Colonial Cedar Co CREQ-DIPT CO INC Unce Berl and Marke Co Berect Silingle & Shake Co EEBRCIA-PACIFIC PLYWOOD CO Jamison Lumber & Silingle Co Kendall Lumber Co LONG-BELL LUMBER CO Mark-Seattle Lumber Co Mark-Seattle Lumber Co MCNair (Robert) Shingle Co Ltd Olympic Stained Products Co PERMA-PRODUCTS CO Pertland Shingle Co Portland Shingle Co Preservative Paint Co Smith (M B) Lumber & Shingle Co Weatherbest Corp West Coast Stained Shingle Co WEYERNAEUSER SALES CO WEOG Resultion

SHINGLES, REDWOOD Union Lumber Co

APRIL 1953

SHINGLES, STEEL GALVAN-17FD

Badger Corrugating Co BERGER MFG CO DIV REPUBLIC STEEL CORP CECO STEEL PRODUCTS CORP Cincinnati Sheet Metal & Roofing Co Clark-Babbitt Industries Inc Edwards Mfg Co Eduards Mig Co Gary-Pioneer Steel Corp INLAND STEEL PRODUCTS CO La Crosse Steel Roofing & Corrugating Co Mid-States Steel & Wire Co Northwest. Metal Products Inc Southern States Iron Boofing Co Wheeling Corrugating Co

#### SHORES, SAFETY SYMONS CLAMP & MEG CO

SHORING, CONCRETE SOFFIT FLOOR BLOCK RESSER MEG CO

#### **SHOWER BATH CABINETS**

Allen Steel Products AMERICAN SHOWER DOOR CO INC BINSWANGER & CO Clow (James B) & Sons CRANE COMPANY ELJER CO FIAT METAL MFG CO FIAT METAL MFG CO Glauber Brass Harrison Steel Cabinet Co Ingram-Richardson Mfg Co Kraus (Walter S) Co Milwaukee Stamping Co National Metal-Art Mfg Co Northwest Metal Products Ine O'Morrow (W M) & Co Peerless Steel Equipment Co Pioneer Co Pioneer Co PITTSBURGH PLATE GLASS CO Republic Bross Co PITTSBURGH PLATE GLASS CO Republic Brass Co St Charles Mfg Co Sovill Mfg Co Shower Door Co of America Speakman Co Standard Building Products Co Standard Building Products Co Steel Partitions Inc Tildoor Co Tiletone Co Weis (Henry) Mfg Co Inc

#### SHUTTERS, METAL

AIR CONTROL PRODUCTS INC Allen Steel Products Inc trup Co Astruñ Co FAWSCO MFG DIV FALLS STAMPING & WELDING CO Fries & Son Steel Construction & Engineering Co SMEPLER MFG CO Trusshilt Div Siems Bros Inc United Metal Products Inc

#### **SHUTTERS, WOOD** Adelphian Mills

Astrup Co CARR ADAMS & COLLIER CO Control Division Co CARK ADAMS & COLLEN Central Division Co Cole Mig Co CURTIS COMPANIES INC Farley & Lottscher Mig Co ReEG & SON INC Heinley's Movable Shutters Hines (Fédward) Lumber O Huttig Sash & Door Co Huttig Mig Co Huttig Sash & Door Co Marquart Millwork Co Morgan Co Quigley (J R) Co Rock I Sland Millwork Co Silerest Co. Silerest Co.

#### SIDING, ALUMINUM

Alsco Inc Alside Inc Aluminum Co of America Compo-Miracle Products Co KAISER ALUMINUM & CHEMICAL COAP Lifetime Industrieg Lifetime Industries New Holland Metals Co REYNOLDS METALS CO BUILDING PROD-UCTS DIV Southern States Iron Boofing Co

#### SIDING, ALUMINUM CLAP-BOARD

Childers Mfg Co KAISER ALUMINUM & CHEMICAL SALES CORP CORP KAWNEER CO New Holland Metals Co Potts-Farrington Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

SIDING, ASBESTOS CEMENT ASBESTONE CORPORATION Asbestos Co of Texas BARRETT DIV ALLIED CHEMICAL & DYE GARRETT DIV ALLIED CORP CORP BIRD & SON ING CAREY (PHILIP) MFG CO FLINTKOTE CO JOINS-MARVILLE CORP REASBEY & MATTISON CO Pabeo Froducts Inc RUBEROID CO Smith Asbestos Products Co Inc Supradur Corp

#### SIDING, ASBESTOS CEMENT, CORRUGATED

Ashestos Co of Texas Ford Roofing Products Co JOHNS-MANVILLE CORP KEASBEY & MATTISON CO RUBERDID CO

#### SIDING, ASPHALT, LAMIN-ATED RIGID

BARRETT DIV ALLIED CHEMICAL & DYE BARRETT DIV ALLIED CHEMICA CORP CAREY (PHILIP) MFG CO CELOTEX CORP CERTAIN-TEED PRODUCTS CORP FLIMTKOTE CO Globe Rooting Products Co Ine Lucan-Long Co Logan-Long Co RUBEROID CO

#### SIDING, ASPHALT, PAT-TERNED, INSULATING

AMERICAN ASPHALT ROOF CORP BARRETT DIV ALLIED CHEMICAL & DYE CO BIRD & SON INC CAREY (PHILIP) MFG CO CELOTEX CORP CELOTEX CORP Central Division Corp CERTAIN-TEED PRODUCTS CORP FUINTKOTE CO Ford Roofing Products Co Iohoe Roofing Products Co IoHoe Roofing Products Co IONES & BROWN INC Keystone Asphalt Products Co Keystone Asph Lehon Co Logan-Long Co Logan-Long Co Mastic Asphalt Corp Mastic Asphalt Corp Nelson (B F) Mfg Co Protective Products Co RUBEROID CO Tamko Asphalt Products Ine TEXAS CO U S GYPSUM CO Weatherpanel Si nes Ine

#### SIDING, HARDBOARD MASONITE CORP

# SIDING, IRON & STEEL

AMERICAN STEEL & WIRE CO. Badger Corrugating Co BERGER MFG DIV REPUBLIC STEEL CORP Rethlehem Steel Co CECO STEEL PRODUCTS CORP Cincinnati Sheet Metal & Boofing Co Redhenem steel to GECG STEEL PRODUCTS CORP Cincinnati Sheet Metal & Roofing Co Columbia Steel Co Continental Steel Corp Edwards Mig Co FENESTRA BUILDING PRODUCTS Fries & Son Steel Construction & Engineering Co Gonite City Steel Co Houston Blow Pipe & Sheet Metal Works Hinnis Zine Co Hunton Bice Co Hunton Steel, PRODUCTS CO Kinuer Mig Co Koppers Co Inc Tar Products Div Koppers Co Inc Tar Products Div Koppers Co Inc Tar Products Div Horden Schel Roofing & Corrugating Co Macomber Inc Horden Schel Roofing & Co FERENCI & Mig Co FERENCI CO REPUBLIC STEEL CORP Southern States Iron Boofing Co Southern States Iron Boofing Co Southern States Iron Roofing Co TENNESSEE COAL IRON & RAILROAD CO TIMIN ART METAL CO UNITED STATES STEEL CO UNITED STEEL FABRICATORS INC Wheeling Corrugating Co Wheeling Steel Corp

### SIDING, LOG

Abbot Fox Lumber Co Anaconda Copper Mining Co BRADLEY LUMBER CO OF ARK Brown's Tie and Lumber Co BRUCE (E L) CO Canadian Forest Products Lid Canadian Western Lumber Co Lid Christiansen (C M) Collins Pondosa Lumber Co Canadian Western Lumber Co Lid Christianes (C M) Collins Pondosa Lumber Co Connort (George N) Lumber Co Connort Lumber & LAND CO Connort Lumber & LAND CO Connort Lumber & Co Connort Sons Crpress Co Direts Lumber & Co Pirpine Products Co Pirpine Products Co Pirpine Number Co Hillsehan Lumber Co Hillsehan Lumber Co Hillse (Edward) Lumber Co Hillset (Wm) Mill Co Johnson (C D) Lumber Co Hubert (Vm) Mill Co Com Co Kinzua Pine Mills Co LOMG-BELL LUMBER CO Mauk Seattle Lumber Co Michigan Maple Block Co Miler (E C) Cedar Lumber Co Miller (Corp Metropolitan Lumber Co Miller (Corp E) Lumber Co Niller (Corp E) Lumber Co Patrick Lumber Co Pickering Lumber Co Redwood Sales Co Robertson & Hackett Sawmill Co Mousic Furweodo CoBP Robioro Lumber Co TODDIS PLYWGOD CORP Bothora Lumber Co Rustice Furnitare Co. Inc St. Maries Lumber Co St. Paul & Tacuma Lumber Co Sullisan Lumber Co Union Lumber Co Wallace MIII & Lumber Co Wallace MIII & Lumber Co Watter, Lamber Co Warter, Lambe Lumber Co Warter, Lamb Lumber Co Wiston (A K) Lumber Co Wiston LAMDer Sales Co Wiston (A K) Lumber Co Wiston (A K) Lumber Co Wiston (A K) Lumber Co

#### SIDING, PLYWOOD

Actna Plywood & Veneer Co ATLAS PLYWOOD CORP U S PLYWOOD CORP

**SIDING, UNDERLINER, INSULATING, BLANKET** CELOTEX CORP RUBEROID CO WOOD CONVERSION CO

#### SIDING, WOOD FIBER INSULATING BIRD & SON INC

#### SIGNS

SIGNS Active Display Adv Allen (W D) Mfg Co Auto Sign Display Co Carter Co Enamel Products Co Engineered Plywood Products Erco Mfg Co Flexiume Corp Fox Vulley Forge Imperial Brass Mfg Co Matchanal Advertising Co Matchanal Advertising Co Matchanal Advertising Co National Advertising Co Matchanal Advertising Co Matchanal Advertising Co National Advertising Co National Advertising Co Matchanal Advertising Co Endertic Lettern Ine Rendo-Made Sign Co Beaporel Porcelain Metals Ine Stewara Iron Works Co Ine Timessee Enamel Mfg Co Times Morks Co Matchana Works Watson Co Whitehall Metal Studios

### SILICON, CARBIDE GRAIN

BEHR-MANNING CORP DIV NORTON CO Carborundum Co ical Co Fort Pitt Chemics Safe Tread Co Inc

#### ▶ SILOS

P SILUS Arrow Tank Co Inc Caldwell (W E) Inc Concrete Transport Mixer Co Economy Silo & Mfg Co Fieming Mfg Co Inc Globe Silo Harder Silo Co Inc Huibard & C Mfg Co Independent Silo Co Johnson & Carlson Kalamazoo Tank & Silo Co Lappmann Engineering Works

M & M Woodworking Co Resaprest Div Nebraska Bridge Supply & Lumber Co M & M Woodworking Co Resupret Div Nebraska Bridge Supply & Lumber Co ROWE MFG CO Rohlichter (E F) Co Ine Twin City Tank Silo & Specialty Co Unadilla Silo Co Willamette Valley Lumber Co

SILOS, PORTABLE RICHKRAFT CO

SINK RIMS, PREFORMED BRIGGS MEG CO corite Inc rd Metal Moulding Corp Ford Metal Moulding Corp Kinkead Industries Inc MaCKLANBURG-DUNCAN CO Metal Trims Inc National Aluminum Co Pyramid Moulding Co E & W Moulding Co Trimedue Inc Trimedge Inc Wouster Products Inc Youngstown Mfg Inc

#### SINKS CABINET

ALLIANCEWARE INC AMERICAN CENTRAL DIV AVCO MFG CORP AMERICAN RADIATOR & STANDARD SAN-ITARY CORP BERGER MFG DIV REPUBLIC STEEL CORP Boro Wood Products BRIGGS MFG CO Coppes Inc CRANE CO CURTIS COS INC Elgin Store & Oven Div Acme Visible Records Inc ELEK CO ELKAY MFG CO Enamel Products Co ELKAY MFG CO Enamel Products Co Excer Metal Cabinet Co Inc GENERAL ELECTRIC CO APPLIANCES & MERCHANDISE DEPT HOTFDINT INC IXL Furniture Co KELVINATOR DIV NASH-KELVINATOR CORP KOHLER CO Lyon Metal Products Inc Kunter CD Lion Metal Products Ine Midwest Mfg Co Morton Mfg Co Morton Kitchen Cabinet Div MULINS MFG CO MURPAY CORP OF AMERICA MURPAY CORP OF AMERICA Mutschler Bros Palley Mfg Co Paragon Utilities Pioneer Co RICHMOND RADIATOR CO Roberts & Mander Corp rts & Ma ley Corp Ther Corp TOLEDO DESK & FIXTURE CO TRACY MFG CO DIV EDGEWATER STEEL CO

#### SINKS, MONEL OR **STAINLESS STEEL**

Douglas Distributor Corp. Elgin Stove & Oven Div Acme Visible Record Elgin Store & Oven Div Acme Vialble Record Inc ELKAY MFG CO Excel Metal Cabinet Co Genera Modern Kitchens Internion Steel Cabinet & Sheet Metal Works International Nipe & Sheet Metal Works International Nipe & Sheet Metal Works International Nipe & Co Legion Stainless Sink Corp Leyon Metal Products Inc Midwest Mfg Co Paragon Utilities Corp Paragon Utilities Corp Products Prom-Swedon Inc Richmond Engineering Co Roberts & Mander Corp TRACY MFG CO DIV EDGEWATER STEEL CO CO Zakner Mfg Co

#### SINKS, PORCELAIN ENAMEL

Abingdon Potteries Inc ALLIANCEWARE INC AMERICAN CENTRAL DIV AVCO MFG CO CO AMERICAN RADIATOR & STANDARD SAN-ITARY CORP BRIGGS MAGE CO CRANE CO Stove & Oven Div Acme Visible Records Elgin Slove & Oren Div Acme vinue mecoam Inc ELLER CO Enamel Products Co General Ceramics & Steatile Corp Sanitary Ware Div Humphroys Mfg Co Ingernoll Steel Div Borg-Warnet Corp KOMLER Voducts Inc Nidwest Mfg Co Norton Mfg Co Morton Kitchen Cabinet Div MULLINS WFG CORP & AMERICA Paller Mfg Corp & AMERICA Paller Mfg Cosp Paragon Etilities Corp Pinner Co RICHMOND BADIATOR CO

Roberts & Mander Corp Shirley Corp Shirley Corp Thot Corp Toleod Desk & Fixture CO Tracy MFG CO DIV EDGEWATER STEEL CO CO UNIVERSAL RUNDLE CORP.

#### SINKS, VITREOUS CHINA

Abington Potteries Ine AMERICAN RADIATOR & STANDARD SANI-TARY CORP CRAME CO ELIER CO KOMLER CO MULLINS WFG CORP BICHMOND RADIATOR CO

#### SIZE, WALL

▶ SIZE, WALL American Varnish Co ARMSTRONG CONK CO Borden Co Chemical Die Chi-Namel Faint & Varnish Co Cleveland Cleaner & Paste Co. Cousumers Gibe Co Cousumers Gibe Co Cousumers Gibe Co Empire Varnish Co Empire Varnish Co Empire Varnish Co Farwell Ozmun Kirk & Co Le Page's Inc Lowe Brothers Co Miner-Hillard Milling Co Miner-Hillard Milling Co MONSANTO CHEMICAL CO uralo Co Inc aisley Products Inc Patent Cereals Co PITTSBURGH PLATE GLASS CO Pyramid Process Co Inc Pyramid Process Co Inc Rearton Co Reliable Paste & Chemical Co Standard Industrial Products Inc Tamms Industrices Inc Truscon Laboratorics Div Devoe & Baynolds Ine U S GYPSUM CO Vita-Var Corp Wesco Waterpaints Ine

#### SKIDS & PALLETS

Albany Corrugated Container Corp ATLAS PLYW000 CORP Carr & Mochl Co Clark Equipment Co Industrial Truck Div Evans Products Co Gabriel Steel Co Gary Flones Steel Corp GEORGIA-PACIFIC PLYWOOD CO Johnson Industries Ine Lawis-Shepard Products Ine Northwest Door Co Nutling Truck & Caster Co PITTSBURG STEEL PRODUCTS CO Review Caster & Truck Co Review Caster & Truck Co Review Caster & Truck Co DIV DIV Union Metal Mfg Co West Bend Equipment Corp YALE & TOWNE MFG CO

#### **SKYLIGHTS**

P SKTLIGHIS ALSYNITE C0 OF AMERICA American Sheet Metal Works Eader Corrugating Co Eader Corrugating Co Cichare Ing Co Cichare Ing Co Stewart Iron Works Tiffin Art Metal Co Wasco Flashing Co Wasco Flashing Co Willis Steel Corp

> SLATE North Bangor Slate Co Structural Slate Co

#### **SLIDES, EXTENSION** DRAWER

# Knape & Vogt Mfg Co

#### **SNIPS, TINNER'S**

Atlas Shear Co Bridgeport Hardware Mfg Corp Peck Stow & Wilcox Co SARGENT & CO SARGENT & CO Wiss (J) & Sons Co Youngstown Mfg Co Inc

#### SOCKETS, STUDDING Sterling Foundry Co WAGNER MFG CO

### SOCKETS, WIRE ROPE

American Cable Div American Chain & Cable Co Inc AMERICAN STEEL & WIRE CO Roeblings (John A) Sons Co Upson-Walton Co

SOFTENERS, PUTTY

**B**arrett (William L) Co Fort Pitt Chemical Co Fort Pitt Chemical Co Giaziers' Tool Mig Co King (E & F) & Co Ine Sta-Warm Electric Co Steeleote Mig Co Sullison Co

## Sullivan Co

**SOFTENERS, WATER** American Water Softener Co Bard Mfg Co Bard Mfg Co Calgon Inc CRANE CO Culligan Zeolite Co Culligan Zeolite Co Dayton Pump & Mfg CO Dow Chemical Co Eigin Softener Corp Myers (F 2) & Brothers Co Ollux Co Permsylvania Salt Mfg Co Permutit Co Revendid-Shaffer Co fer Co Reynolds-Shaffer Co RHEEM MFG CO Solventol Chemical Products Inc WORTHINGTON CORP CONSTRUCTION EQUIPMENT SALES DIV

#### SOLDER & MATERIALS

Atkins (E C) Div Borg Warner Corp Belmont Smelting & Refining Works CHASE BRASS & COPPER CO CHASE BRASS & COFFER C Dission (Henry) & Sons Inc Division Lead Co Eagle-Picher Co Ensign Products Co Eagle-Picher Co Ensign Products Co Hanchest Mfg Co INLAND STEEL PRODUCTS CO Kester Solder Co King (F& EF) & Co Ine Lake Chemical Co Lux-Visel Ine National Lead Co Sheffield Bronze Paint Corp Wall (P) Mfg Co Wagne Chemical Products Co

#### SPACKLING COMPOUNDS

Colorerete Industries Ine Consumers Glue Co MEDUSA PORTLAND CEMENT CO Muralo Co Inc NATIONAL GYPSUM CO PITTSBURGH PLATE GLASS CO Reardon Co Rutland Fire Clay Co Schalk Chemical Co Ine Tamms Industries U S GYPSUM CO Wesco Waterpaints Waternaints Inc

#### SPIKES, CUT Alan Wood Steel Co

Bethlehem Steel Co INLAND STEEL CO orrugating Co

### SPLICERS, WIRE & FENCE AMERICAN STEEL & WIRE CO Crescent Tool Co KEYSTONE STEEL & WIRE CO Klein (Mathias) & Sons Peck Stow & Wilcox Co

SPREADERS, FERTILIZER,

**LAWN & GARDEN** Buch Mfg Co Doggett-Piell Co Germain Seed & Plant Co Masters Planter Co Midland Co

#### SPRINKLERS, AUTOMATIC SYSTEMS

Blaw-Knox Div Blaw-Knox Co

#### SPRINKLERS, LAWN

Adel Precision Products Corp ng Co Brass & Bubber Co Keystone Brass & Rubber ( National Sprinkler Co Roll-A-Way Sprinkler Co Scovill Mfg Co

#### SQUARES, CARPENTER'S

Brown & Sharpe Mfg Co LUFKIN RULE CO SARGENT & CO Stanley tools div stanley works Starrett (L S) Co Swanson Tool Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

#### SQUARES, CARPENTER'S. STEEL "T"

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Diffic I for the second Selek (Walter | Sharo's Mfg Co Sharp's Mfg Co Southington Hardware Mfg Co STANLEY TOOLS DIV STANLEY WORKS Starrett (L S) Co Union Tool Co Woodmark Industries

#### SQUARES, COMBINATION

LUFKIN RULE CO Peek Stow & Wilcox Co STANLEY TOOLS DIV STANLEY WORKS

#### SQUARES, GLASS CUTTER'S

Fletcher Terry Co Glaziers Tool Mfg Co GIALEES TOOL MIG CO LUFKIN RULE CO PITTSBURGH PLATE GLASS CO Sommer & Maca Glass Machinery Co STANLEY TOOLS DIV STANLEY WORKS

#### STAIN, CONCRETE FLOOR

CABOT (SAMUEL) INC Horn (A C) Co Ine **PECORA PAINT CO INC** Smith (J Lee) & Co Inc Sullivan Co Sullivan Co Tamms Industries Inc Truscon Laboratories Div Devoe & Raynolds Vita-Var Corp Wilbur & Williams Co Williams (C K) & Co

#### **STAIN, SHINGLE**

 STAIN, SMINULE
Abesto Mig Corp
Alabastine Paint Products Dir Chicago
Bronze & Color Works
American Stained Shingle Co
American Stained Shingle Co
American Varnish Co
Berry Brothers Inc
Briang Shothers Inc
Briang Anoney Co Inc
Caso I CAMUEL 1 MC
Caso I Concentration
Briang Bronze & Color Works
Chi-Namel Paint & Varnish Co
Colonial Cedar Co
CRED-LIPT CO INC Constal Code Colonial Code Colonial Code Currential of Artworth INC Device & Regrandle Inc Due Dont (E 1) de Nemours & Co Elliott Paint and Varnish Co Empire Varuish Co Elliott Paint and Varnish Co Edidem Co Horn (A C) Co Inc Johnston (B F) Paint Co Lowe Brothers Co Murney Paint Dir Interchemical Corp O'Brien Corp O'Brien Corp Olympic Stained Products Co Parker (Ira) & Sons Co PERMA PRODUCTS CO PITTSBURGH PLATE GLASS CO Prilissungh PLAIE GLAS Portland Shingle Co Pratt & Lambert Inc Protexol Corp Sargent-Gerke Co Seidlitz Paint & Varnish Co SHERWIN-WILLIAMS CO Sangaborn (L) Song Inc SMERWIN-WILLIAMS CO Sonneborn (L) Sons Inc Etandard Industrial Products Inc Valentine & Co Inc Vita-Var Corp Wadsworth Howland & Co WeatherHeit George D) & Co WeicherHil (George D) & Co Wood Treastring Chemicals Co

#### STAIN, VARNISH

Devoe & Raynolds Inc Elliott Paint and Varnish Co Ridden Co Horn (A C) Co Ine Keystone Paint & Varnish Corp Lowe Brothers Co D'Brien Corp PITTSBURGH PLATE GLASS CO Seidlitz Paint & Varnish Co SHERWIN-WILLIAMS CO Stelecte Mfg Co Truscon Laboratories Dir Devoe & Baynolds Co Valentine & Co Inc Vita-Var Corp

#### STAIN, WOOD, OIL

Abesto Mfg Corp BARRETT DIV ALLIED CHEMICAL & DYE CO Boston Varnish Co Breinig Brothers Ine CABOT (SAMUEL) INC

AMERICAN BUILDER

Chicago Bronze & Color Works CREO-DIPT CO INC Devoe & Raynolds Inc Elliott Paint and Varnish Co Foy Paint Co Inc Horn (A C) Co Ine LINSEED OIL PRODUCTS LINSEED OIL PRODUCTS Lowe Brothers Co Marietta Paint & Color Co O'Brien Corp Olympic Stained Products Co Parker (Ira) & Sons Co PERMA PRODUCTS CO PITTSBURGH PLATE CLASS CO PITTSBURGH PLATE CLASS CO PITTSBURGH PLATE CLASS CO Pratt. & Lamber, Contab Co Pratt. & Lamber, Contab Co Standard Varnish Works Toch Brothers Inc Truscon Laboratories Div Devce & Raynolds Co Vita-Var Corp

#### STAIRS, STEEL

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ARTCRAFT ORNAMENTAL IRON CO Bellkool Co CINCINNATI IRON FENCE CO CINCINNATI INON FENCE CO Decatur Iron & Steel Co Fiske (J W) Iron Works GENERAL RENDZE CORP Grand Hanids Wire Products Co Houston Blow Pipe & Sheet Metal Works International Steel Co Logan Co Marco Stairways MESKER (GEORGE L) STEEL CORP METAL CRAFTERS ST PAUL FOUMORY & NFC CD Smith (P P) Wire & Iron Works Stewart Iron Works Co Inc

#### STAIRS, WOOD, MATERIALS FOR

FUK BRADLEY LUMBER CO OF ARK BRUCE (E L) CO Cole Mig Co Cue Tis Cos inc Farley & Lotescher Mig Co Huttig Mig Co Huttig Mig Co Huttig Sash & Door Co Marquart Milleork Co Morgan Co Morgan Co M & W Woodworking Co Morgan Co Morgan Sash & Door Co Nickey Brothers Inc Radford & Sanders Inc Radford & Sanders Inc Rock Island Millwork Co Snedaker (Frank C) & Co Spokans Sash & Door Co Wheeler Osgood Co

#### STAIRWAY, DISAPPEARING

American Ladder Co BESSLER DISAPPEARING STAIRWAY CO Craig Wood Products Co EZ-WAY SALES INC Faley & Loscher Mg Co FOLDAWAY STAIRWAY CO INC HUNTINGTON INDUSTRIES INC Marco Stairways Mar Navark Ladder & Bracket Co PRECISION PARTS CORP Boach & Musser Co WEL-BILT PRODUCTS CO

#### STAKES, SURVEYORS LUFKIN RULE CO

#### STAPLERS & STAPLES

 SIAPLERS & STA Acme Staple Co Arrow Fastener Co Arrow Fastener Co Bostiliener Steel Co Bostiliener Steel Co Consolidated Wire Products Continental Steel Co Consolidated Wire Products Continental Steel Co Consolidated Steel Co FASTENER COMP FASTENER FASTENER COMP FASTENER Crofoot (J B) Co FASTEMER CORP Fir-Tex Insulating Board Co FRANTZ MFG CO Gerard (A J) & Co HANSEN (A L) MFG CO Hillwood Mfg Co Hillwood Mfg Co Hillwood Mfg Co Hotchkiss (E B) Co JONES & LAUGHLIN STEEL CORP KEYSTONE STEEL & WIRE CO Larson (Charles 0) Co Mid-States Steel & Wire Co NATIONAL MFG CO NICHOLS WIRE & ALUMINUM CO Northwestern Skeel & Wire Co REMINGTON RAND INC REPUBLIC STEEL CORP Sarana Machine Co SARGENT & CO Sheffield Skeel Corp Shefton Tack Co TENNESSEE COAL IRON & RAILROAD CO Wheeling Corrugating Co Wickwire Brothers

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#### STAPLES, METAL FURRING OR LATH

AMERICAN STEEL & WIRE CO AMERICAN STEEL & WHE CO Bethlehem Steel Co CONTIGENTIAL Steel CORP CONTIGENTIAL Steel CORP KEYSTONE STEEL & WHRE CO Pittsburgh Steel Products Co Wheeling Corrugating Co

**STAYS, FENCE** AMERICAN STEEL & WIRE CO CECO STEEL PRODUCTS CORP KEYSTONE STEEL & WIRE CO Mid-States Steel & Wire Co

#### STAYS, WINDOW

Air-Tite Window Stay Co Air-Tite Window Stay Co Ideal Brass Works Inc Noiseless Window Spring Co Rockford Sash Holder, Inc SARCENT & CO Vikre (J N) Co

#### **STEEL, CONCRETE** REINFORCING

AMERICAN STEEL & WIRE CO AMERICAN STELL Bethlehem Steel Co CECO STEEL PRODUCTS CORP CECO STEEL PRODUCTS CORP Consolidated Iron-Steel Mfg Co Continental Steel Corp COPCO STEEL & ENGINEERING CO Dictrich Brothers Inc International Steel Co KEYSTONE STEEL & WIRE CO Northwestern Steel & Wire Co PENN METAL CO INC Pitchurgh Steel Packada Co Finishingh Steel Products Co REPUBLIC STEEL CO Souls Steel Co Steelcraft MFG CO Trunscon Steel Co United Steel Co United States Steel CO ets Co

Webrib Steel Corp Wheeling Corrugating Co WICKWIRE SPENCER STEEL DIV COLO-RADO FUEL & IRON CORP

#### STEEL, MASONRY WALL REINFORCING CARTER-WATERS CORP CEDAR RAPIDS BLOCK CO DUR-D-WAL

STEEL STRAPPING

Acme Steel Co Brainard Steel Co Gerrard (A J) & Co Gerrard Steel Strapping Co Independent Metal Strap Co Ine Met-Cro Specialties Co Ine PAINE CO Desblirers (John A) Some Co Roeblings (John A) Sons Co Sharon Steel Co Signoda Steel Co Signode Steel Strapping ( STANLEY WORKS West Leechburg Steel Co

#### STEEL, STRUCTURAL, MISC. SHAPES, ETC.

JIATES, ELC. Albana Metal Lath Co Allen Steel Producta Bosthehem Steel Co Ince Bostwick STEEL LATH CO Commercial Shearing & Stamping Inc Consolidated From-Steel Mfg Co Decatur From & Steel Co Decatur From & Steel Co GREAT LAKES STEEL CORP INLAND STEEL CO International Steel Co International Steel Co JONES & LAUGHLIN STEEL CORP Rigidized Metals Corp ST PAUL FOUNDRY & MFG CO Soule Steel Co Tennessee Coal Iron & Railroad Co Truscon Steel Co United States Steel Co

#### STOKERS

AIRTEMP DIV CHRYSLER MOTORS American Engineering Co Anchor Div Stratton & Terstegge Co Ine Anchor Store & Range Co Auburn Foundry Inc Auburn Foundry Inc Brownell Co Coal-O-Matic Stoker Co Combustioneer Div Steel Products Engineering Co onco Engineering Works Div Conkey (H D) Co Co

CHARE CO Demagine Steel Furnace Co Demagine Steel Furnace Dir Cotta Transmission Co Eddy Stoker Corp Electric Furnace-Man Inc Erric City Iron Works Excelsion Store & Mig Co Freeman Stoker Dir Illinois Iron & Bolt Co Heriser Machine & Foundry Co Holtomh & Hoke Mig Co Holtomh & Go Peerlea Mig Corp Pocahontas Fuel Co Stoker Davis Co Stoker Davis Co Stoker Co Ine U S Machine Corp Viet Mig Corp Viet Mig Corp Stoker Co Ine U S Machine Corp Viet Mig Corp Viet Mig Corp Viet Mig Corp Viet Mig Corp Winting Corp Winting Corp Winting Corp Winting Corp

#### STONE, CRAB ORCHARD Crab Orchard Stone Co

STONE, GRANITE Fletcher (H E) Co North Carolina Granite Corp Vermont Marble Co

### **STONE, LANNON**

Conco Building Products Ine Hrobsky Lannon Stone Servic Wisconsin Lannon Stone Corp STONE, LIMESTONE

P SIONE, LIMESION Elionnington Limestone Co Carner Co Ine Conco Building Products Ine Concon (G & W H) Ine Indiana, Limestone Co Ine Menke Stone & Lime Co Monon Stone Co National Lime & Stone Co Sare Hoadley Stone Co Taylor Stone Co Wisconsin Lannon Stone Corp Wisconsin Lannon Stone Corp

# STONE, MARBLE Bauer (Frank P) Marble Co Fiwale Equipment Mfg Co Georgia Marble Co Schlichter (P M & W) Inc

Universal Form Clamp Co Vermont Marble Co STONE PATCHING COMPOUNDS Dugan's Invisible Stone Patch & Stone Stain Products Beardon Co Rutiand Fire Clay Co

#### STONE, QUARTZ Tennessee Stone Co Inc

STONE, SANDSTONE BRIAR WILL STONE CO Cleveland Quarries Co Taylor Stone Co

#### **STONE, SYNTHETIC**

rmstone Co Perma Stone Co Stedfast Stone & Brick Corp Stonekote Corp

# STORE LAYOUT SERVICES Heller (W C) & Co Huss & Baird Studio LONG-BELL LUMBER CO Sitka Spruce Lumber & Mfg Co STANDARD STEEL WORKS

STRAIGHTEDGES

Y SIKAIGH IEDGES Atkins (E.C. Div Borg Warner Corp Brown & Sharpe Mrg Co Dictzgen (Eugene) Co Ginziers Tool Mrg Co Hoe (R) & Co Inc KEUFFEL & ESSER CO LUFKIN AULE CO RED DYIL YOOLS Nebck Warner Co Storrer (L E) Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

#### **STRAINERS, EAVE TROUGH**

> SIRAINERS, EAVE IKOUGH Alabama Metal Lath Co Badger Corrugating Co BERGER MFG DIV REPUBLIC STEEL CORP Brown & Sharpe Mfg Co CECD STEEL PRODUCTS CORP CHASE BRASS & COPPER CO Donley Brothers Charge Mrg Co Donley Brothers Edwards Mfg Co INLAND STEEL PRODUCTS CO Mid-States Steel & Wire Co Northwest Metal Products Inc Penn Supply & Metal Corp Rolock Inc Rolock Inc U.S. Cistern Filter Mfg Co. Wheeling Corrugating Co Williams-Wallace Co Zurn (J A) Mfg Co

#### STRAINERS, SEWER PIPE

American Vitrified Products Co Donley Brothers Brans Pipe Co MAJESTIC CO Robinson Clay Product Co Universal Sewer Pipe Corp Vestal Stove Co Zurn (J A) Mfg Co

#### STRAPPERS

Acme Steel Co Brainard Steel Co Gerrard (A J) & Co Gerrard Steel Strapping Co Sharon Steel Co Signode Steel Strapping Co

#### STRIPS, CORRUGATED FILLER

Fabricated Products Co Servicised Products Corp

#### STRIPS, DIVIDING CHASE BRASS & COPPER CO Manhattan Terrazzo Brass Strip Co Inc

STRIPS, FILLER ASPHALT Fabricated Products Co Servicised Products Corp

STRIPS, FURRING, STEEL Bolardi Steel Corp

STRIPS, SEALING Keller Products

# ▶ STUCCO Beautex Plaster Mfg Co Coddington (E D) Mfg Co Colorcrete Industries Inc KENITEX CORP Penn Crete Products Co Sullivan Co

STUCCO, PRE-MIXED Blue Diamond Corp LOUISVILLE CEMENT CO Pyramid Co U S GYPSUM CO Woodville Lime Co

STUCCO RETARDERS Breinig Brothers Inc Tamms Industries Inc

#### SWEEPERS, INDUSTRIAL MACHINE

Handling Devices Co Inc

#### SWITCHES, ELECTRIC

Arrow-Hart & Hegeman Electric Co Bryant Electric Co BULLDOG ELECTRIC PRODUCTS CO BULLOGG ELECTRIC PRODUCTS CO Cutler-Hammer Inc Federal Electric Products Co General. Electric CO CONSTRUCTION MATERIALS DEFT General Switch Corp Hubbell (Harvey) Inc Micro Switch Corp Pass Reymour Inc WestingHouse Electric Corp

SWITCHES, MERCURY

#### SWITCHES, TIME, AUTOMATIC

Paragon Electric Co Penn Electric Switch Co Sampsel Time Control Ing Tork Clock Co Ine

#### SYSTEMS, GARAGE, GAS REMOVAL

NATIONAL SYSTEM GARAGE VENTILATION

#### TABLES, DRAFTING

P TABLES, DIRAFTING Emrick Inc. Hantiton Mg Co Kunster Mg Co Kinster Mg Co Kinster Mg Co Kinster Mills Co Lyon Metal Products Ico Post (Proderick) Co Rmith (H E) Co Souther Wire & Iron Works Stace Equipment Corp Stillwater Clay Products Co WARREN-KNIGHT CO

#### TABLES, SAW ATLAS PRESS CO Sales Service Machine Tool Co

TABLES, STEEL Equipto Div Aurora Equipment Co Heller (W C) & Co Heyer Sales Co Lyon Metal Products Inc Precision Equipment Co REMINGTON RAND INC Universal Steel Equipment Corp

#### TACKERS, AUTOMATIC

Acme Stanle Co. Acme Steel Co Arnew FASTENER CO BOSTITCH INC Burgess Fastening Co Crofoot (J B) ( FASTENER CORP Glaziers Tool Mfg Co HANSEN (A L) MFG CO oller Co otchkiss (E H) Co Markwell Mfg Co In RED DEVIL TOOLS Saranac Machine Co Spotnails Inc

#### TACKERS, HAMMER

BOSTITCH INC Hotchkiss (E H) Co Markwell Mfg Co Inc

▶ TAMPERS BARCO MFC CO Storta (John) & Sons Woodings-Verona Tool Works

#### TANKS, FUEL OIL & GAS STORAGE

Black Sivalis & Bryson Inc KAUSTINE CO INC KOVEN (L 0) & BROS INC PRICE FIREPLACE MEATER & TANK CORP

#### TANKS, HOT WATER, **HEATING SYSTEM** BELL & GOSSETT CO THRUSH (H A) & CO

# • TANKS, SEPTIC, CLAY American Vitrified Products Co Cannelton Sewer Pipe Co Pati Steel Products Co Penver Sewer Pipe & Clay Co Dickey (W S) Clay Mfg Co Peave Pipe Co Dickey (W S) Clay Mfg Co Evans Pipe Co Kaul Clay Mfg Co Lehigh Sever Pipe & Tile Co NATIONAL CLAY PIPE MFRS INC Robinson Clay Products Inc Streator Drain Tile Co What Cheer Clay Products Co

#### TANKS, SEPTIC, STEEL

Armeo Drainage & Metal Products Ine Beall Pipe & Tank Corp Birmingham Building Products Corp Parter Mar Co Birmingham Butler Mfg Co Bounster Mill Mfg Co Denley Brothers Ingalis Iron Works Co KAUSTINE CO INC KOVEN (L O) & BROS INC PRICE FIREPLACE HEATER & TANK CORP Richmond Engineering Co San-Equip Inc Stillwater Clay Products Co Storer Steel Tank & Mfg Co Uniflow Mfg Co

TANKS, SEPTIC, WOOD Arrow Tank Co Butler Mfg Co Fleishel Lumber Co

Johnson & Carlson Uniflow Mfg Co

#### TANKS, STEEL, STORAGE

▶ IANKS, STEEL, STORAGE Armotican Steel Works Armoto Drainage & Metal Products Inc Beall Pipe & Tank Corp Breyer Brothers Whiling & Co Budler Mig Co Compared Damun Kirk & Co Farwell Ozmun Kirk & Co Farwell Ozmun Kirk & Co Heil Company Pipe & Sheet Metal Works Hudson (H D) Mig Co La Crosse Steel Roofing & Corrugating Co Manitowes Ship Building Co Nationes Ship Building Co es Mfg Oukes Mfg Co Bichmond Engineering Co ST PAUL FOUNDRY & MFG CO Schlichter (E F) Co Inc Seattle Boiler Works Scattle Boller Works Siehring Mfg Co Stover Steel Tank & Mfg Co Wayne Home Equipment Co

#### TANKS, WOOD, STORAGE

P LANKS, WUUD, SIUKAG Acroust Co Arrow Tank Co Ine Atlantic Tank Corp Ballimore Cooperage Tank & Tower Co Dempster Mill Mfg Co Economy Silo & Mfg Co Fleishel Lumber Co Johnson & Carlson New England Tank & Tower Co Pacific Wood Tank Corp Pacific Wood Tank Corp Pacific Wood Tank Corp Usion Lumber Co U S Challenge Co

#### TAPE, FILTER, DRAIN TILE Ric-Wil Co

TAPE, INSULATING RUBEROID CO

#### TAPE, MASKING

BEHR-MANNING CORP Goodrich (BF) Co Minnesota Mining & Mfg Co PITTSBURGH PLATE GLASS CO

## TAPE REPAIR OUTFIT LUFKIN RULE CO WARREN-KNIGHT CO

> TAPE RING LUFKIN BULE CO

### TAPE, WALLBOARD JOINT

CELOTEX CORP CERTAIN-TEED PRODUCTS CORP Economy Bias Binding Co Marvan Com NATIONAL GYPSUM CO Ranburn Co Inc Reardon Co Teamon Ludwattee Inc Tamms Industries Inc U S GYPSUM CO Waterpaints Inc

### TAPE, WATERPROOF,

BARRETT DIV ALLIED CHEMICAL & DYE

#### TAPES, MEASURING

CARLSON & SULLIVAN INC Chicago Steel Tape Co Dictagen (Eugene) Co Economy Novelty & Printing Co EVANS & CO EVANS & CO Graham (John H) & Co KEUFFEL & ESSER CO LUFKIN RULE CO MASTER RULE MFG CO INC Parisian Novelty Co Roe (Justus) & Sons Starrett (L S) Co Union Tool Co WARREN-KNIGHT CO WHITE (DAVID) CO

### TAPES, SURVEYORS EVANS & CO LUFKIN RULE CO WARREN-KNIGHT CO

TAPES, WOVEN LUFKIN RULE CO WARREN-KNIGHT CO

#### Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

#### TAPING MACHINES, DRY-WALL

Ames Taping Tools Inc Debs Decorators Drywall Taping Co

# TAR, LIQUID F TARK, LIQUID BARRETT DIV ALLIED CHEMICAL & DYE C0 Horn (A C) Co Ine Kompers Co Ine Reilly Tar & Chemical Corp Tufalt Ine

TAR, PITCH AMERICAN ASPHALT ROOF CO BARRETT DIV ALLIED CHEMICAL & DYE

CO BIRD & SON INC CABOT (SAMUEL) INC FLINTKOTE CO JOHNS-MANVILLE CORP Koppers Co Inc Reilly Tar & Chemical Corp RUBERGID CO

#### ▶ TARPAULINS

American Tent & Awning Co Angier Corp Astrup Co Bemis Brothers Bag Co Hemis Brothers Bag Co Canvas Frodets Co Canvas Recelaty Co Ciltion Mig Co Couch Routhers Mig Co DANIELS CC R) INC PANIELS (C R) INC Fulton Bag & Cotton Mills Goodrich (E F) Co New York Drop Cloth Mig Co RichKRART CO Standerd Awning Co Standerd Awning Co Stander (William W) Co Inc Tucker Duck & Rubber Co U S Tont & Awning Co Werner Canvas Products Co

# TARPAULINS.

WATERPROOFED corn Canvas Co Acorn Canvas to Astrup Co Berg (F 0) Fulton Bag & Cotton Mills Ins Hettrick (W E) & Son Co Upton Sales Corp Wenzel (H) Tent & Duck Co

#### **TERNE PLATES**

dger Corrugating Co Bethlehem Steel Co FOLLANSBEE STEEL CO INLAND STEEL PRODUCTS CO Wheeling Corrugating Co Wheeling Steel Corp Youngstown Sheet & Tube

#### THIMBLES, CHIMNEY & STOVE PIPE

Allen Steel Products Cannelton Sewer Pipe Co Dickey (W S) Clay Mfg Co Donley Brothers Denley Brothers Hope Brick Works INLAND STEEL PRODUCTS CO Yout Clay Mfg Co MAJESTIC CO NATIONAL CLAY PIPE MERS INC Pacific Clay Products Robinson Clay Products Co Sterling Foundry Co Washington Brick & Lime Co

#### THRESHOLDS, METAL & PLASTIC

Accurate Metal Weatherstrip Co ALLMETAL WEATHERSTRIP CO Aluminum Co of America American Brass Co American Mason Safety Tread Co Athey Mfg Co Braun (J G) Co Braun (J G) Co B 4 T METALS CO CECO STEEL PRODUCTS CORP Chamberlin Co of America Ine CHASE BRASS & COPPER CO Decatur Iron & Steel Co Decorite Inc Denoire Reptars aley Brothers rbin Metal Strip Mfg Co Dorbin Metal Ereo Mfg Co LOU ANG CO MACKLANBURG-DUNCAN CO MASTER METAL STRIP SERVICE INC METAL CRAFTERS Monarch Metal Weatherstrip Corp National Guard Products Inc Newman Brothers Inc Nichols Wire & Aluminum CO Protex Weatherstrip Mfg Co Protex Weatherstrip Aurg Co Robbins Mig Co SARGENT & CB S & W Moulding Co WEATNERPROOF PRODUCTS CORP Werner (R D) Co Inc Wooster Products Inc Youngstown Mig Inc

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#### THRESHOLDS, WOOD

Artan Plywood & Veneer Co Anderson-Tuily Co Anderson-Tuily Co BRADLEY LUMBER CO OF ARK BRUCE (E L) CO Chapman & Dewey Lumber Co Clarke Comity Lumber Mills Cole Mig Co Dureds Chimber & Coal Co CROSSEYT LUMBER CO Dierks Lumber & Coal Co Edens-Birch Lumber Co-Farler (D. LUMBER CO Farler & Lottacher Mfg Co Frotze Lumber Co Frotze Lumber Co Griffith Lumber Co Griffith Lumber Co Hardwood Corp of America Holly Hill Lumber Co Hutton & Rourbonnais Co Industrial Lumber Co tries Ine Hutton & Bourbonnais Co Industrial Lumber Co Korn Industries Inc LONG-BELL LUMBER CO Marshall Lumber Co Marshall Lumber Co Medracken & McCail Inc Medracken & McCail October 1 (Stranger Co Millor Routhers Inc Medracken & McCail Medra

TIES, WALL

Allen Steel Products Badger Corrugating Bethlehem Steel Co Co BOSTWICK STEEL LATH CO CARTER-WATERS CORP CECO STEEL PRODUCTS CORP CEDAR RAPIDS BLOCK CO DUR-O-WAL DIV Central Products Co CHASE BRASS & COPPER CO Central Products Co CAASE BRASS & COPPER CO Copperweld Steel Co Donley Brothers Gary Pinoters Steel Corp Goldsmith Metal Lath Co HILANO DELE, PRODUCTS CO HILANO DELE, PRODUCTS CO HILANO DELE, PRODUCTS CO HILANO DELE, PRODUCTS CO HILANO MEL, PRODUCTS CO HILANO MEL, PRODUCTS CO HILANO MELA, PRODUCTS CO HILANO MELA PRODUCTS CO HILANO MELA PRODUCTS INC Reverse Steel & MTR Co Southern States Iron Roofing Co State Expansion Products Co Inc U S GYPSUM CO Universal Form Clamp Co Wheeling Corrugating Co

#### TIES, WALL & COLUMN, WIRE MESH

CECO STEEL PRODUCTS CO FENN METAL CO INC PENN METAL CO INC Richmond Screw Anchor Co Sommer Mctaleraft Corp TRUSCON STEEL CO Universal Form Clamp Co Wheeling Corrugating Co Williams Form Engineering Corp

#### TILE, ACIDPROOF

Harbison-Walker Refractories Co Mexico Refractories Co National Tile & Mfg Co Nukem Products Corp Robinson Clay Product Co Sloane-Blabon Corp Stark Brick Co Stark Brick Co TILE-TEX DIV FLINTKOTE CO

#### TILE, ASPHALT

ARMSTRONG CORK CO BIRD & SON CAREY (PHILIP) MFG CO FLINTKOTE CO Fremont Rubber Co HACHMEISTER INC

AMERICAN BUILDER

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WALLBOARD

Hood Rubber Dir Goodrich (B F) Co Insul Mastic Products Co Inc JOHNS-MANVILLE CORP KENTILE INC MASTIC TILE CORP OF AMERICA MOULTILE INC Paboo Products Inc Boxdale Building Products Corp ane-Blabon Co Sloane-Blabon Corp Thomas Moulding Floor Mfg Co TILE-TEX DIV FLINTKOTE CO Uvalde Rock Asphalt Co Williams Products Co Inc

#### TILE, CLAY

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Arme Brick, Co Adel Clay Products Co Adretex Ceranic Corp American-Olean Tile Co American-Olean Tile Co American-Olean Tile Co Bingliamton Brick Co Bowerston Shale Co Cambridge Tile Mfg Co Charleston Clay Products Co Chicago Fire Brick Co Claycraft Co Denver Sewer Pine & Clay Co Eltin-Standard Brick Mfg Co General Shale Products Corp General Shale Products Corp Hope Brick & Tile Co Kalo Brick & Tile Co Kalo Brick & Tile Co Matonal Tile & Mfg Co Pastional Tile & Mfg Co Pastional Tile & Mfg Co Shortin Brick & Tile Co Shortin Carpeso Brick & Tile Co Shillwate Clay Products Ine Stillwate Clay Products Ine Stillwate Clay Products Ine Stillwate Clay Products Ine

Summit Products Inc. Summit Proceeds Brick & Tile Co Texas Brick Co Tile Council of America United Materials & Bichmond Brick Co Lid U S Quarry Tile Co Verdigris Valley Vitrified Brick & Tile Co Yankee Hill Brick Mig Co

# TILE, CORK

KENTILE INC

#### TILE, DRAIN

▶ TILE, DRAIN Acme Brick Co American Vitrified Products Co Henerston Suble Cipe Co Chehalis Brick & Tile Co Chehalis Brick & Tile Co Clandis Brick & Tile Co Columbia Brick Works Columbia Price Co Concrete Products Corp Denver Sewer Pipe & Clay Co Grasstone Concrete Products Co Grasstone Concrete Products Co Grasstone Concrete Products Co Grasstone Concrete Ardia Co Hanceck Brick & Tile Co Hancek Brick & Tile Co Kalo Brick & Tile Co Lehigh Sewer Pipe & Tile Co NATIONAL CLAY PIPE MFRS INC NATIONAL CLAY PIPE MFRS IN National Firepronfing Corp. Pacific Clay Products Bobinson CLay Products Co Bobinson CLay Products Co Sheridan Press Brick & Tile Co Sheridan Press Brick & Tile Co Sheridan Press Brick & Tile Co Universal Sewer Pipe Co Universal Sewer Pipe Co What Cheer Clay Products Co Yankee Hill Brick Co

#### TILE, HEARTH

Longmont Brick & Tile Co Murray Tile Co Ine Sparta Ceramic Co

TILE, LINOLEUM

ARMSTRONG CORN CO Bonafide Mills Inc Sloane-Blabon Corp

#### TILE, PARTITION, CLAY

Acme Brick Co Columbia Brick Works Denver Sever Pipe & Clay Co Grasstance Concrete Products Co Great Falls Brick Co Hocking Valley Brick Co Hocking Valley Brick Co Kalo Brick & Tile Co Kalo Brick & Tile Co St Anne Brick & Tile Co Sealeon Products Inc

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Sheffield Brick & Tile Co Summit Pressed Brick & Tile Co Washington Brick & Lime Co Yankee Hill Brick Mfg Co

#### TILE, PARTITION, GYPSUM

Blue Diamond Corp CERTAIN-TEED PRODUCTS CORP NATIONAL GYPSUM CO Sealcon Products Inc U S GYPSUM CO

### TILE, PAVING, NON-SLIP

American Abrasive Metals Co Charleston Clay Products Co FLINTKOTE CO Metropolitan Brick Co National Tile & Mfg Co Norton Co Safe Tread Co Inc Stark Brick Co Stark Brick Co TILE-TEX DIV FLINTKOTE CO

#### TILE, PLASTIC

P IILE, PLASHIC Cermak Tile Co Delaware Floor Products Inc HACAMEISTER INC JOANS-MARVILLE CORP MASTIC TILE CORP OF AMERICA Midland Plastic Molding Co Stylon Corp. Styron Bri-Tile Co of N Y Thomas Moulding Floor Mfg Co U S Bloneware Co

#### > TILE, PLASTIC, ASBESTOS Acorn Plastic Engineers Inc

#### TILE, QUARRY

FILE, UOARKI Adel Ciap Products Co Arketex Ceramic Corp Brookharen Pressed Briek & Mfg Co Cannelton Sewer Pipe Co Carlyle Tile Co Clark (N) & Sons Div Pacific Clay Products Gladding-McBean & Co Hanley Co Interstate Brick Co Ludowid-Celadon Mifflin (B) Bood Co Interstate Brick Co Ludwici-Celadon Mifflin (B) Hood Co MoSAIC TILE CO Murray Tile Co Inc National Tile & Mfg Co Pacific Clay Products Summirville Pace Brick Co Summirville Pace Brick Co Utah Fire Clay Co Utah Fire Clay Co Washington Brick Lime & Sewer Pipe Co Wheeling Tile Co

#### TILE, ROOFING

P IILE, RUOFING California Pottery Co Clarkt (N1 & Sons Div Pacific Clay Products Gladding-MeRean & Co Interstate Brick Co Ludowici-Celadon Co Mifflin (B) Hood Co Murray Tile Co Inc National Fireproofing Corp Pacific Clay Products Washington Brick & Lime Co Wolverine Porcelain Enameling Co ZONOLITE CO

TILE, ROOFING, INSULATING KIMBLE GLASS CO SUB OF OWENS-ILL-INDIS GLASS CO

#### TILE, ROOFING, METAL

Continental Steel Corp Edwards Mfg Co REYNOLDS METALS CO DUILDING PROD-UCTS DIV

#### TILE, RUBBER

TILE, RUBBER
 American Riltrike Rubber Co American Rubber Co Armstrane Rubber Co Luc
 Armstrane Rubber Co Luc
 Brandt, Wear Rubber Co Ince
 Brandt, Wear Rubber Co Ince
 Browner Rubber Products (De F) Co
 Instru Plaster Ci Instructures Ince
 Partie Products Ince
 Part Co Anges Component
 Browner Co Browner Co
 Browner Co Browner Co

Sloane-Blabon Corp U S Rubber Co Williams Products Co Inc WRIGHT MFG CO WRIGHT RUBBER PROD-UCTS DIV

#### TILE, SEWER, SEGMENT

Vitrified Products Co Shale Co American Bowerston Shale Co Dickey (W S) Clay Mfg Co NATIONAL CLAY PIPE MFRS INC Pacific Clay Products Robinson Clay Products Co Universal Concrete Pipe Co Universal Sewer Pipe Corp

#### TILE. SILO

Acme Brick Co Adel Clay Products Co Columbia Brick Works Dickey (W S) Clay Mfg Co Kalo Brick & Tile Co National Fireproofing Corp Yankee Hill Brick Co

#### TILE, STRUCTURAL CLAY

▶ ILLE, STRUCTURAL CL
Arme rick Co
Arme rick Co
Armerick Co
Armerick Co
Chilance Caramic Corp
Bush (W OF & Co
Chelais Rick & Tile Co
Chelais Rick & Tile Co
Chelais Rick & Tile Co
Chelaise Rick Co
Clayeraft Co
Comobiling Products Ice
Determine Rick & Tile Co
Armerick Brick Co
General Sila Products Co
Election Clay Products Co
Hordin Rick & Tile Co
Interacter Rick Co
National Prieproofing Corp
National Preproduct Co
Cardific Lay Products Co
Fording Rick & Tile Co
National Preproduct Co
School Brick & Tile Co
State Brick & Tile Co
School Brick & Tile Co

#### TILE, WALL, ALUMINUM, PLASTIC COATED

#### Alloy Tile Cort Bestile Mfg Co VIKON TILE CORP

TILE, WALL BOARD

Actna Plywood & Veneer Co A & F Tileboard Co A & F Thieboard Co Alto-Tile Mirg Co ARMSTRONG CORK CO BUILDING MA-TERIALS DIY Barelay Mirg Co Inc Bestine Mirg Co Bolia Products Sales Inc Bolta Products CORP CELOTEX CORP CERTAIN-YEED PRODUCTS CORP CERTAIN-YEED PRODUCTS CORP Colotyle Corp Div Tyle-B Cornell Wood Products DANT & RUSSELL INC Davis Plywood Corp East Coast Tileboard Cor Corp eboard Corp East Coast Tileboard FLINTKOTE CO Roardtile Corp Gibbs Boardille Corp Homasofe Co Insulite Div Minnesota & Ontario Paper Co Johns. Marville Corp Marsh Wall Products Inc Masgnite Corp MARSH WALL PRODUCTS THE MASDNITE COMP Milwauker Plywood Co Mattien K CVSUM CO National Titeboard Cop PRESTILE MFE CO PRESTILE MFE CO RODDIS PLYWOOD CORP Roxdale Building Products Cop Superior Plastics Div Commonwealth Plastic Inc Superior Wall Products Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

TYLAC CO U S GYPSUM CO UPSON CO Wallace Mrg Co Wall-Tile Mrg Co Williams Products Co Inc WOOD CONVERSION CO Yankee Tile & Fibre Mrg Co

TILE, WALL, BOARD,

**GYPSUM** CELOTEX CORP NATIONAL GYPSUM CO

#### TILE, WALL, BOARD, PLASTIC COATED

ARMSTRONG CORK CO BUILDING MA-TERIALS DIV Barclay Mfg Co Inc Bestile Mfg Co East Coast Tileboard Co East Coast Theodard to Gibbs Boardtile Corp MARSH WALL PRODUCTS INC Miratile Mfg Co National Tileboard Corp PRESTILE MFG CO Rozdale Building Products Co Superior Wall Products Co TYLAC CO Wallace Mfg Co

#### TILE, WALL, GLASS

American Beauty Glass Tile Co Dearborn Glass Co Pittsburgh Glass Tile Co

TILE, WALL, MARBLE Vermont Marble Co.

#### TILE, WALL, METAL

Alloy Tile Corporation Baltimore Porcelain Steel Corp Bestile Mfg Co Cermak Tile Co Ine Ford Boofing Products Co Goldsmith Metal Lath Co Goldsmith Metal Lath Co Metal Tile Products Inc Ohio Can & Crown Co Plastic Products Co Roxdale Building Products Corp Steel Wall Tile Co VIKON TILE CORP Wheeling Corrugating Co

TILE, WALL, PLASTIC

A-1 PLASTIC MOLDERS INC AMERCO PLASTICS AMERICO FLASTICS Barclay Mig Co Bonafide Mills Inc Cermak Tile Co Inc Chicago Plastic Products Co Inc Church (C F) Mfg Co East Coast Tileboard Co Guildenset Com Guilderest Corp HACHMEISTER INC Insul Mastic Products Insul Mastic Products ( JONES & BROWN INC Lustro Plastic Tile Co Mastro Plastics Corp Meridian Plastics Ine Meyercord Co National Tileboard Corp s Co Inc National Tileboard Corp Pioneer Co Pittsburgh Plastic Tile Co Plastic Products Co Plastic Tile Co of America PRESTILE MFG CO Pabhing Co PRESTILE VFG CO Robins Tire & Robber Co Selek (Walter E) & Co Stylon Corp Stylon Corp Styron Bri-Tile Co of N Y Superior Plastics Div Commonwealth Plastics Superior Plastics Div Commonwealth Plastics Superior Wall Products Co Thomas Moulding Floor Mfg Co The-Ruic Co Tile-Rite Co TILE-TEX DIV FLINTKOTE CO

Trimedge Inc United Plastic Tile Co Williams Products Co Inc Wilson Plastics Inc

#### TILE, WALL, PORCELAIN ENAMEL

American & Venetian Tile Co ARMSTRONG CORK CO BUILDING MA-TERIALS DIV Baltimore Porcelain Steel Corp Clyde Porcelain Steel Corp Davidson Enamel Products Ine Porcelain Products Ine Scaporcel Porcelain Metals Ine

#### TILE, WALL, WOOD Malmtile Co

#### > TILE & TILEBOARD, ACOUSTICAL

ARMSTRONG CORK CO BUILDING MA-TERIALS DIV CELOTEX CORP CERTAIN-TEED PRODUCTS CORP

DANT & RUSSELL INC Duriaol Inc Hammon (Elof) Inc InSULITE DIV MINNESOTA & ONTARIO PAPER CS JEINES-MARVILLE CORP Heiler Island Lime & Transport Co Keller Island Lime & Transport Co Keller Island Lime & Transport Co Heiner Con Heiner Co WENS-CORNING FIRERCLAS CORP Porte MIG Co HEYNOLDS METALS CO BUILDING PROD-UCTS DIV Simpson Dagging Co Simpson Logging Co U S GYPSUM CO WOOD CONVERSION CO

#### **TIMBER CONNECTORS**

1 Steel Specialty Co Inc Timber Engineering Co TIMBER STRUCTURES INC

#### TOOL BOXES

All-Steel Equipment Co Equipto Div Aurora Equipment Co LUFKIN RULE CO Lyon Metal Products Inc Proto Tool Co Union Steel Chest Corp

#### TOOLS, BORING

Armstrong Brothers Tool Co ENERSON ELECTRIC NEG CO U S ELEC-TRICAL TOOL DIV Gairing Tool Co Graham (John H) & Co Inc Holub Industries Inc Mephisto Tool Co Inc MILWAUKEE ELECTRIC TOOL CORP Pratt & Whitney Div Niles-Bement-Pond Co Precision Tool Co Inc STANLEY TOOLS DIV STANLEY WORKS Wallace (J D) Mrg Co

 tools, carpenter

Athus (C) bis Borg Warner Corp
Flack Brethers Co Inc
Colarberg Mir Co
Diston (Berny) & Sons Inc
Drew (C) & Co
Eliason Tool Co
Eliason Tool Co
Echan (John H) Co Inc
Granham (John H) Co Inc
Granham (John H) Co Inc
Heiler Brothers Co
Lectonia Tool Co
Maghew Steel Products Inc
Millers Fails Co Maphew Steel Products Inc Milters Fails Co. MILWAUKEE ELECTRIC TOOL CORP OC-Wall Tool Co. Press Nature & Wilcox Co. Finant Tool Company Ratney-Tool Co. Sampon Tools Afge Co. Startet (L. 8) Co. Storts (John) & Son Inc. Union Hardware Co. Yaughan & Bushnell Mfg Co.

#### TOOLS, CARVING, HOMEWORKSHOP

HUMEYVOR STOFF Rues Machine Works Chicago Wheel & Mfg Co Clarke Nanding Machine Co DREMEL NFG CO Duro Metal Products Co Excel Auto Radiator Co INDEFENDENT PREUMATIC TOOL CO NOTH Brothers Mfg Co Div Stanley Tools Obdorne (C S) & Co PRAKE WOODWORKING MACHINE CO Pratt & Whitney Div Niles Benent-Pond Co Swodwark Mfg Co Pratt & Whitney Div Niles Bement-Pond Co Speedway Mfg Co Walker-Turner Co Div Kearney & Trecker Corp Wilson Saw Div Media Machine Works Inc

#### > TOOLS, CAULKING

Bucabel Tool Mfg Co Goldhlatt Tool Co Lectonia Tool Co Paine (Benjamin O) Proto Tool Co Bobbins Mfg Co

#### TOOLS, CONCRETE FINISHING

Atkins (E.C.) Die Borg Warner Corp. Disston (Henry) & Sons Inc. Coldblatt Tool Co. Dission (Henry) & Sona Inc Goldblatt Tool Co INDEFENDENT PNEUMATIC TOOL CO Marshalltown Trovel Co Starling Wheelbarrow Co Whiteman Mig Co

#### TOOLS, ELECTRIC, PORTABLE

Albertson & Co Inc AMERICAN FLOOR SURFACING MACHINE

BLACK & DECKER MFG CO BRADFORD MACHINE TOOL CO BRADFORD MACHINE TOOL CO Burgess Viberafters Inc Chicago Pneumatic Tool Co Clarke Randing Machine Co Consolidated Machinery & Supply Co Ltd Cummins-Chicago Conp Cummins PORTABLE TOOLS DIV PORTABLE TODIS DIV Electric Rypatic Co EMERSON ELECTRIC MFG CO U S ELEC-TRICAL TODI DIV FORSBERG MFG CO Goldblatt Todi Co Hestow & Anderson Div St Paul Foundry & MFG CO INDEPENDENT PNEUMATIC TODI CO Malt TODI CO Millers Folls Co MIL TODI CO DIV CORPORTER-CABLE MACHINE CO ROCKWELL MFG CO DELTA POWER TODI DIV alv DIV SKIL CORP STANLEY ELECTRIC TOOLS DIV STANLEY WORKS SYNTRON CO US Electrical Tool Co Wallace (J D) & Co Wright Fower Saw & Tool Co

> TOOLS, GLAZIERS' PITTSBURGH PLATE GLASS CO RED DEVIL TOOLS STANLEY TOOLS DIV STANLEY WORKS

### > TOOLS, LINOLEUM-LAYING ARMSTRONG CORK CO National Guard Products Youngstown Mfg Inc

#### > TOOLS, MASONS, PLASTERERS

PLASTERERS Adams (C F) Inc Adams (C F) Inc Adams (C F) Div Borg Warner Corp Banner Mir Co Berg (John) Mig Co Bridgeort Hardware Mig Corp Bueabel Tool Mig Co Cedarburg Mig Co Disson (Henry) & Sons Donley Brothers Dresden Mig Co Diston (Henry) & Sons Dresden Mig Co Diston (Henry) & Sons Dresden Mig Co Diston (Henry) & Sons Dresden Mig Co Graham (John H) Co Inc Industrial Iron Works Heller Brothers Saw Mig Co Inc Industrial Iron Works Kakest Company Lansing Co Marshalltown Trowel Co Marshalltown Towel Co Marshalltown Arws Co Neholis Mig Co Paine (Benjamin O) Peek Stow & Wilcox Co Plamb, (Fayette R) Inc Remineton Anns Co inc Stanley Tool I'v STANLEY WOI REMINGTON ARMS CO INC Sands Level 4 Tool 'o STANLEY TOOL DIV STANLEY WORKS Storts (John) & Son Inc Tennessee Line & Twine Co U S CYFESUM CO United Wire Goods Mfg Co Vernontown Tool Dir Mctex Corp Vulcan Tool Mfg Co Wheeling Corrugating Co

#### > TOOLS, PAINTERS' & **PAPERHANGERS'**

Atlas-Ansonia Co Bengal Co Black Panther Tool Co Carlson (A B) & Co Cylod Cuttery Co Colliner Brothers Colorerte Industries Iné Dence & Raynolds Inc Petton Siber Mig. Co Fitton Siber Mig. Co Goldblatt Tool Co Harbil Mig. Co Harbil Mig. Co Holley Chemical Co Hyde Mig. Co Landers Frazy & Clark Modern Specialtics Co Murray-Black Co Plarker (Ira) & Sons Co Ploncet Tool Co Inc PITTSBURGH PLATE GL Atlas-Ansonia Co Bengal Co Pioneer Tool Co Inc PITTSBURGH PLATE GLASS CO RED DEVIL TOOLS Ridgely Trimmer Co Rubberset Co Savogran Co Seiditta Paint & Varnish Co Selek (Walter E) & Co Sonneborn (L) & Sons Inc Stepienson Mfg Co Stepienson Mfg Co Stepienson Mfg Co Thi-Ko Mfg Co Dis Mfg Co Venontown Tropoly Metez Corp Wendell Mfg Co Wendell Mfg Co Wendel Mfg Co Rubbernet Co.

#### TOOLS, PLUMBERS

Armstrong Brothers Tool Co Armstrong Mfg Co Baltimore Tool Steel Corp Hood Brothers Hydraulie Mfg Co Mephisto Tool Co Ine Mephisto Tool Co Inc MILWAUKEE ELECTRIC TOOL CORP P & C Hand Forged Tool Co Peck Stow & Wilcox Co Proto Tool Co Proto Tool Co Rainey-Tools Stortz (John) & Son Ine Vaughan & Bushnell Mfg Co Vernontown Tool Div Metex ( Wilde Drop Forge & Tool Co Corp

#### TOOLS, PNEUMATIC

Chicago Pneumatic Tool Co Ingersoll-Rand Co SKIL CORP SKIL CORP WORTHINGTON CORP CONSTRUCTION FOUPIMENT SALES DIV Wright Power Saw & Tool Co

#### TOOLS, ROOFING

& Brothers (0 F Coldblatt Tool Co INLAND STEEL PRODUCTS CO R C S TOOL SALES CORP STANLEY TOOLS DIV STANLEY WORKS Tri-States Bldg Material Co

#### TOOLS, WEATHERSTRIP

Barland Weatherstrip Material Co CECO STEEL PRODUCTS CORP CENTRAL METAL STRIP CO Monarch Metal Weatherstrip Corp Protex Weatherstrip Mfg Co Robbins Mfg Co STANLEY TOOLS DIV STANLEY WORKS

#### TOPS, CABINET, TABLE, COUNTER

Acta Plywood & Veneer Co American Central Div AvCo MFG Corp Angel Novelty Co Arborite Co Lto Armstrong Cork Co BRADLEY LUMBER CO OF ARK Continental Can Co CURTIS COMPANIES INC DAVIES (J A) & CO Del-Mar Cabinet Co Inc Douglas Distributors Corp Dougnas Distributors Corp Edeo Mfg Co Engineered Plywood Products Co Farley & Loctscher Mfg Co FORMICA CO GENERAL ELECTRIC CO SINKS & CABINET

TORNICA CO TORNICA CO TORNICA CO TENENT CENTRAL ELECTRIC CO CHEMICAL DIV HASKELITE MFC CORP Ingram-Richardson Mfg Co IXI. Furniture Co Johnson & Carlson KITCHEM MAID CORP Korok Mfg Co Lyon Metal Products Inc MARSH WALL PRODUCTS INC Midwart Mfg Co MOORE (GOOLGE) E) INC Moore Coopole E) INC Motion Mfg Co Midwart PLOSTIC PRODUCTS CO National Tile & Mfg Co Ohio Rubber Co Palley Mfg Co Ohio Rubber Co Palley Mfg Co Panelyte Div St Regis Sales Corp Paragon Utilities Corp Parkwood Corp PITTSBURGH PLATE GLASS CO RODDIS PLYWOOD CORP Technical

Tennesse Channel Mrg Bennesse Augustante Correspondent Steel CO Tuco Work Shops Inc U S Menge Plysood Inc U S Menge Plysood Inc U S Menge For WESTINGHOUSE ELECTRIC CORP Williams Products to Inc WOODALL INDUSTRIES INC Youngstown Mfg Inc

#### Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

#### TORCHES, BLOW

P UNCINES, BUT Aemil Froducts Inc Badger Corrugating Co Bernz (04to) Co Inc Celarborg Mfg Co Clayton & Lambert Mfg Co Detroit Torch & Mfg Co Everbot Mfg Co Justrite Mfg Co Justrite Mfg Co Justrite Mfg Co Lenk Mfg Co Macleod Co National Airoil Burner Co PITTSBURGH PLATE GLASS CO Turner Brass Works Wall (P) Mfg Co

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#### TOWERS, SELF-RAISING JAEGER MACHINE CO PATENT SCAFFOLDING CO INC

#### ▶ TRACTORS

ALLIS-CHALMERS MEG CO Buda Co Caterpillar Tractor Co DEARBORN MOTORS CORP Detroit Hoist & Machine Co Elweil-Parker Electric Co Industrial Truck Dir Clark Equipment Co International Harrester Co Lewis-Shepard Products Inc Mack-Injernational Motor Truck Corp Massey-Harris Co OLIVER CORP CLETRAC DIV

#### **TRAILERS**

Case Crane & Kilbourne Jacobs Co Daybrook Hydraulic Corp Borsey Trailers Eberhard Mfg Co Div Eastern Malleable Iron

Co Fruchauf Trailer Co Kingham Trailer Co Kingham Trailer Co Kingham Co Lansing Co Le Tourneau (R G) Inc Mustang Trailer Co Nabors (W C) Co Co Mustang Trailer Co Nabors (W C) Co **REYNOLDS METALS CO BUILDING PROD-UCTS DI& Brothers Co Streich (A) & Brothers Co Trailmobile Co Utility Trailer Mfg Co Wentworth & Irwin Wood (Gar) Industries Inc** 

• TRAPS, GREASE CRANE COMPANY Industrial Iron Works Industrial Iron Works NATIONAL CLAY PIPE MFRS INC Vestal Stove Co Building Specialties Div-Zurn (J A) Mfg Co

#### TREADS, STAIR, BRASS CHASE BRASS & COPPER CO

#### TREADS, STAIR, SAFETY

Alan Wood Steel Co Alan Wood Steel Co American Mason Safety Tread Co BRADLEY LUMBER CO OF ARK BRUCE (E L) CO CAREY (PHILIP) MFG EO CHASE BRASS & COPPER CO CURTIS COS INC Decorite Inc Decorite Inc JONES & LAUGHLIN STEEL CORP Logan Co Morgan Co Safe Tread Co Inc Servicised Products Co Wheeling Corrugating G Wooster Products Inc Youngstown Mfg Co

#### TREADS, STAIR, STEEL

P IRRADJ, SIARK, SIEE Alan Wood Steel Co American Marsive Metals Co American Mason Safety Tread Co Rlaw Knox Uiv Blaw Knox Co Cole Mfg Co Decatur Iron & Steel Co Fremont Rubber Co Industrial Iron Works International Steel Co Logan Co Inc Industrial Iron Works International Steel Co Logan Co Inc METAL CRAFTERS MOORE (GOOLOE E) INC Safe Tread Co Inc Smith (F P) Wire & Iron Works U S Rubber Co

Western Foundry Co Youngstown Mfg Inc

TREADS, STAIR, WOOD BRADLEY LUMBER CO OF ARK BRUCE (E L) CO Burke Millwork Co Burke Millwork Co CURTIS COS INC FAIR (D L) LUMBER CO Farley & Loetscher Mfg Co Frost Lumber Industries Ine GEORGIA-PACIFIC PLYWOOD CO Harris Mfg Co Hines (Edward) Lumber Co Huttig Sash & Door Co Marquart Millwork Co

AMERICAN BUILDER

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Memphis Hardwood Flooring Co Morgan Co Nickey Brothers Ine Spokane Sash & Door Co

**TRENCHERS** ARPS CORP HARNISCHFEGER CORP OLIVER CORP

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#### Sherman Products Inc. TRUCK BODIES

F HOCK BODIES Beall Pipe & Tank Corp Carter Mfg Co Fordyree-Crossett Lumher Co Fordyree-Crossett Lumher Co General Implement Corp Hercules Steel Products Corp Indiana Body Co KEWANEE MFG CO MORRISON STEEL PRODUCTS INC Perfection Steel Body Co Pointer-Willamette Co Pointer-Willamette Co Schaefer Body Spokane Sash & Door Co Stoughton Cab & Body Co Streich (A) & Bros Co Wentworth & Irwin Wood (Gar) Industries Inc

#### TRUCK BODIES, CONCRETE, DIIMP

Dumperete Div Maxon Construction Co Inc.

#### TRUCK BODIES, DUMP

Anthony Company Beall Pipe & Tank Corp Daybrook Hydraulle Corp Dumperete Div Maxon Construction Co Inc Farmers Lumber & Supply Co Gallon All-Steel Body Co Farmers Lamore & converted of the conver KEWANEE MFG CO Marion Metal Products Co Perfection Steel Body Co Pointer Willamette Co Wood (Gar) Industries Inc

#### **TRUCK BODIES, ROLLOFF**

Beall Pipe & Tank Corp Carter Mfg Co Fruehauf Trailer Co Honeyman Mfg Co Honeyman Mfg Co R-B Company Schaefer Body Stimmel Winch Co Stireich (A) & Brothers Co Wentworth & Irwin Inc

#### TRUCKS, MOTOR

AUDORAT CO INE Brockway Motor Co Ine CHEVROLET MOTOR DIV GENERAL MOTORS CORP CHRYSLER CORP Diamond T Motor Car Co DODGE BROTHERS DIV CHRYSLER CORP Database 1 Addres ar Co Dece 11 More Far Co Dece 11 More Far Co FORD MOTOR CO FORD MOTOR CO FORD MOTOR CO GMC Truck & Coach Dis General Motors Corp International Havester Co Kenworth Motor Truck Corp Mack-International Motor Truck Corp Marmon-Herrington Co Inc Milford Crane & Maciline Co PRIME MOVER CO Res Motors Inc Sterling Motors Truck Corp Studebaker Corp Studebaker Corp White Motor Co White Motor Co White Motor Co White Motor Co

#### TRUSSES, ROOF, STEEL

Allen Steel Products AMERICAN BRIDGE CO SUB OF U S STEEL Bethlehem Steel Co CECO STEEL PRODUCTS CORP CECB STEEL PRODUCTS COMP Erre Steel Construction Co Gabriel Steel Co Houston Biow Pipe & Sheet Metal Works MESKER (GEORGE L) STEEL COMP REPUBLIC STEEL COMP ST PAUL FOUNDRY & MFG CO Southern Wire & Iron Works TRUSCON STEEL CO STEEL CO

TRUSSES, ROOF, WOOD Green Lumber Co McKeown Brothers Co RILCO LAMINATED PRODUCTS INC Tacoma Lumber Fabricating Co TIMBER STRUCTURES INC WEYERHAEUSER SALES CO

APRIL 1953

#### TUBS, LAUNDRY

Alberene Stone Corp of Va AMERICAN RADIATOR & STANDARD SANI-TARY CORP AMERICAN RADIATOR & STANDARD SANI-TANY CORP Arrow Tank Co Inc CRANE COMPANY ELLER CB General Ceramics & Statite Corp Sanitary Ware Dy Ingram-Richardson Mfg Co Johnson & Carlson KONLER CS RECHARD & RADIATOR CO HIGHMORY & Sons Inc Standard-Eimere Granite Co Trenton Potteries Co Vermont Soussione Co Wheeling Corrugating Co

#### **WNITS, UTILITY**

Dwyer Products Corp Earle Kitchen Unit Co.

#### VALLEYS, METAL ROOF

Alabama Metal Lath Co Allen Steel Products Allen Steel Products American Brass Co BERGER MFG DIV REPUBLIC STEEL CORP CECO STEEL PRODUCTS CORP CHASE BRASS & COPPER CO Continental Steel Corp Gars-Pioneer Steel Corp Goldsmith Metal Lath Co Goldsmith Acta Co Illinois Zine Co INLAND STEEL PRODUCTS CO Nid-States Steel & Mus New Holland Metals Co NICHOLS WIRE & ALUMINUM CO Supply & Metal Corp ere In Revere Copper & Brass Inc REVMOLDS METALS CO BUILDING PROD-UCTS DIV ST PAUL CORRUGATING CO TENNESSEE COAL IRON & RAILROAD CO UNITED STATES STEEL CO

#### VALVES, PLUMBING,

HEATING, ETC. AMERICAN RADIATOR & STANDARD SANI-TARY CORP BELL & GOSSETT CO Black Sivalis & Bryson Inc Boston Brass Co Inc CHASE BRASS & COPPER CO Coyne & Delaney | CRANE COMPANY Durk Vier Co Durk Mic Co ELJER CO Jenkins Brokers Locke Regulator Co Michoaneli & Miller Ine MINNEAPOLIS-HONEYWELL REGULATOR MINNEAPOLIS-HONEYWE CO Mueller Brass Co Mueller Co Myers (F E) Brother Co Rockford Brass Works Schaible Co Sloan Valve Co

Taco Heaters Inc THRUSH (H A) CO Trane Company Zurn (J A) Mfg Co

#### **VANES, WEATHER**

Bantam Mfg Co Burkett Lightning Rod Co Edwards Mfg Co Edwards Mfg Co Electra Protection Co Fiske (J W) Iron Works Independent Protection Co James Mfg Co Rand-Williams Mfg Co Inc Samcoe (Wm J) Iron Co Starline Inc Whitehall Metal Studios Inc

#### **VAPOR BARRIERS**

Vir-O-C Angier Corp BARRETT DIV ALLIED CHEMICAL & DYE BARRETT DIC CORP BIRD & SON INC CAREY (PHILLP) MFG CO CERTAIN-TEED PRODUCTS CORP INFRA INSULATION INC Control of Control Contr Keystone Asphalt Pr Kimberly-Clark Corp Protective Papers Inc REYNOLDS METALS CO BUILDING PRODS DIV RICHKRAFT CO SISALKRAFT INC VENEERS, HARDWOOD Veneer Co Albany Plywood Co ATLAS PLYWOOD CORP Braund-Harmon Co Braund (W B) Co

NIGGINS INC MARSH WALL PRODUCTS INC Nickey Brothers Pearl City Plywood Co Ine Weber Veneer & Plywood Co

#### ▶ VENTILATORS. FOUNDATION

AIR CONTROL PRODUCTS INC Arex Co BENNETT-IRELAND INC BRUCE (E L) CO

Donley Brothers KEWANEE MFG CO LESLIE WELDING CO LESLIE WELDING CO Louden Machinery Co MAJESTIC CO Standard Steel Cabinet Co U S GYPSUM CO

#### VENTILATORS, GLASS BLOCK, WALL

Airolite Co AIR RECTIFIERS INC HOUGH SHADE CORP Modern Shade CORP Modern Stainless Specialties Co Monarch Metal Weatherstrip Corp PITTSBURGN PLATE GLASS CO

#### VENTILATORS, PORTABLE HERMAN NELSON VENTILATORS, ROOF,

REVOLVING

Rurt Mfg Co CECO STEEL PRODUCTS CORP Clay Requipment Corp Danzer Metal Works Ilg Electric Ventilating Co INLAND STEEL PRODUCTS CO INLAND STEEL PRODUCTS C James Mfg Co Klauer Mfg Co Penn Supply & Metal Corp ST PAUL CORRUGATING CO el Co Starline Inc Warner Ventilator Co

#### VENTILATORS, ROOF, WALL. AND WINDOW

Adams Co AIR CONTROL PRODUCTS INC AIR CONTRACT AND CONTRACT AND CONTRACT AND CONTRACT CORD Airolite CO Allen Steel Products Inc American Shower Corp American Sheet Metal Works ANGEL NOVELTY CO Arex Co Badger Corrugating Co BERNS MFG CO BOSTWICK STEEL LATH CO BOSTWICK STEEL LATH CO Brower Mig Co Brower Mig Co Inc CAREY (FMILIP) MFG CO GECO STEEL PRODUCTS CORP C & H Air Conditioning Fan Co ChartAnaOGGA IMPLEMENT & MFG CO Charter And State Co Charter And State Co Confort Products Corp DAMP-VENT CO Dicht Mig Co Electrical Div Singer Mig Co Donley Brothers Edwards Mfg Co EMERSON ELECTRIC MFG CO Farwell Ozmun Kirk & Co FASCO INDUSTRIES INC Harris Inc Hermphill (A D) Co HERMAN NELSON HERMAN NELSON HOMMAN & Barnard Inc MOPE'S WINDOWS INC Houston Riow Pipe & Sheet Metal Works Hudson (H D) Mfg Co Ideal Ventilator Co Ing Electric Ventilation Co Ing Electric Ventilation Co Ing Electric Ventilation Co Ing Electric Constant HAAND STEEL PRODUCTS CO IONNS-MANYILLE CORP Kernchen Co Harris Ine JOHNS-MANVILLE CORP Krauser-Royd La Crosse Steel Boofing & Corrugating Co Larion (Chas G) Co Laton (Chas G) Co LeSsing WER CO LeSsing Werd Products Co Lecigning Wood Products Co Low Conklin & Co Vicialeraft Serven Co Metalcraft Screen Co Modern Stainless Specialties Co Div Modern Electric Laboratory Electric Laborator National Screen Co Olson Mfg Co Paasche Airbrush Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52 Peerless Electric Co Penn Supply & Metal Corp Pennsylvania Wire Glass Co Phenix Mig Co Plymouth Stamped Metal Co PRVME & CO INC Electric Ventilator Co PRVME & CO INC Electric Corp St Louis Blow Pipe & Heater Co St PAUL CORBUGATING CO Samoco (W J) Iron (Co Samoco (W J) I Situndard Steel E Cabinet C Startine Inc. STEWART WFG CO SUTTON (C A) CORP Swartwout Co Trane Company Uno Ventilator Co Vertal Store Co Ward (Kdagar T) Co Inc Wardiow & Jordan Wardiow & Jordan Wardiow & Jordan Wardiow & Jordan Western Appliance Co Inc WESTINGHOUSE ELECTRIC CO Willis Steel Corp Winco Ventilator Co

#### ▶ VERMICULITE

Acme Asbestos Covering & Flooring Co Baker-Thomas Lime & Coment Co California Zonolite Co

Dodson Mfg Co GREAT LAKES CARRON CO TREAT BLACES CARRON CO Internountain Insulation Co Mikolite Sales Corp Northwest Insulations Co Robinson Insulation Co Schundler (F E) & Co Ine Southert Zonolite Co Sullivan Co Tamms Industries Ine Texas Vermiculite Co Vermiculite Institute Corp Vermiculite Institute Corp Vermiculite Products Ine Western Mineral Products Co ZONOLITE CO

#### ► VISES

 VISES
 American Scale Co
 Arnstrong Mig Co
 Athol Machine & Foundry Co
 Billings & Spencer Co
 Champion Hardware Co
 Clumbian Vise & Mig Co
 Desmond-Stephan Mig Co
 Graham (John H) & Co Ine
 Grand Specialities Co
 Littletown Hardware Co
 Millers Falls Co
 North Brothers Mig Co Div Stanley Tools
 Parker (Charles) Co
 Peck Stow & Wilcox Co
 RichARDS-WILCOX WIFG CB Parker (Charles) Co Peck Stow & Wilcox Co Richards-Wilcox MFG CO St Paul Foundry & MFG Co Sargent & Co Starley Tools Div Stanley Works

#### WALL COPING

P WALL COPING Acme Brick Co American Vitrifed Products Co Bowersten Shale Co Canetion Sweer Pipe Co Ciay City Pipe Co Dickey CW 8) Ciay Mfg Co Evans Pipe Co Lehigh Newer Pipe & Ciay Co MatibaaL CLAY PIPE MFRS INC National Fireproving Co Robinson Clay Product Co Seateon Products Inc Stillwater Clay Products Co Union Clay Mfg Corp Washington Brick & Lime Co What Cheer Clay Products Co

#### WALLBOARD, ALUMINUM FOIL COVERED

CERTAIN-TEED PRODUCTS CORP NATIONAL GYPSUM CO U S GYPSUM CO

#### WALLBOARD, ASBESTOS CEMENT

ASBESTONE CORP CAREY (PHILIP) MFG CO CELOTEX CORP Johns-Manville Corp Keasbey & Mattison Co Ruberoid Co

WALLBOARD, FIBER CANE CELOTEX CORP

WALLBOARD, FIBER INSULATING ARMSTRONG CORK CO Barclay Mfg Co

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Rolta Products Sales Inc CELOTEX CORP Colo Mig Company East Const Tilebaard Corp FARTINE DO NINNESSTA & ONTARIO INAS-MARUILE CORP NATIONAL GYPSUM CO National Tilebaard Corp Plantergon Wall Board Co Superior Wall Board Co Superior Wall Products Co U S GYPSUM CO UPSON CO WOOD CONVERSION COMPANY

#### WALLBOARD, FIBER, WATERPROOFED

UPSON CO

#### WALLBOARD, FIBER, WOOD

Artna Plywood & Veneer Co ARMSTRONG CORN CO BUILDING MA-TERIAL DIV BIRD & SON INC RELA Products Raise Inc CERTAIN-TEED PRODUCTS CORP Cornell Wood Products Corp Cornell Wood Products Corp Pir-Tex Invitating Board Co Fir-Tex Invitating Board Co Fir-Tex Invitating Board Co Fir-Tex Invitating Board Co PAPE CO HONG-BELL LUMBER CO MARSH WALL PRODUCTS INC MASONITE CORP NATIONAL CYPSUM CO National Tileboard Corp Service Products Orp Service Products Orp Service Products Corp Service Products Co U S GPSUM CO U S GPSUM CO Wall Products Co U S S PLYWOOD CORP UPSON CO

### WALLBOARD, GYPSUM

Blue Diamond Corp CELOTEX CORP CENTAIN-TED PRODUCT CORP Grand Rapids Flaster Co NATIONAL CYPSUM CO Pabeo Products Ine Pacific Portland Compo Schumacher Wall Board Corp U S GYPSUM CO

# WALLBOARD, LEATHER

Actna Plywood & Vencer Co MASONITE CORP Miratile Mfg Co Wallace Mfg Co

#### WALLBOARD, MARBLE FINISH

ARMSTRONG CORK CO Barclay Mfg Co Glibba Roardfile Corp JOHNS-MANVILLE CORP MARSH WALL PRODUCTS INC Mirstile Mfg Co PRESTILE MFG CO WILLIAMS Products Co Inc

#### WALLBOARD, PAPER

CERTAIN-TEED PRODUCTS CORP Cornell Wood Products Co Fleming & Sons Inc Plastergon Wall Board Co U S PLYWOOD CORP UPSON CO

# WALLBOARD, WOODGRAIN

ARMSTRONG CORK CO BUILDING MA-TERNAL DIV CENTAIN-TEED PRODUCTS CORP FORMICA CO GUMAS BOARDINE OF TO MASKELITE WFG CORP HOMASOTE CO MARSH WALL PRODUCTS INC NATIONAL GYPSUM CO PRESTILE WFG CO Service Products Div Woodail Industries Inc U S GYPSUM CO

#### ▶ WALLPAPER

Birgo Co Ine Ruffalo Walleraft Co Ine Buffalo Wall Paper Mfg Co Century Wallpaper Mfflo Cook Paint & Varnish Co Devoe & Raynolds Inc Di-Noe Co Giobe Mills Inc Ideal Co Imperial Paper & Color Corp Pigment Color Div Joliet Wall Paper Mills Kimberly-Clark Corp. Kinsul Div Lennon Wallpaper Co Midwest Wall Paper Co PirtsSukGen PLATE GLASS CO PirtsSukGen PLATE GLASS CO Plattaburg Wallpaper Co Standard Coated Products Div Inter-Chamical Corp Star-Perciess Wallpaper Mills Stotter Wallpaper Inc Variation (Geo E) Co York Wall Paper Co

# WALLPAPER,

READY-PASTED Trimz Co Inc United Wallpaper Inc

# WALLPAPER REMOVERS

Boyer Chemical Laboratory Co Consumers Glue Co Devoc & Raynolds Co Inc Durasol Chemical Co Fuller (II B) Co Glidden Co Le Page's Inc Le Page's Inc Patent Cercais Co Patent Ce

#### WARDROBES

Austral Sales Corp. BERGER MFG DIV REPUBLIC STEEL CONP. CARRA ADAMS & COLLIER CO Decorative Calinet Corp. Equipment Mfg Co Inc. Lee Metal Products MEMOEL CO Midwest Mfg Co MICWARDS-WILCOX MFG CO Stor-Aid Inc. Woodcraft Mfg Co

#### WASHERS, CLOTHES

Altorfer Brothers Co Antomatic Washer Co Barlow & Seelig Mig Co BENDIX HOME APPLIANCES INC DIV AVCO MFG CORP Blackstone Corp Conion Bros Mig Co Conion-Moore Corp Conson-Moore Corp Fathonak Mores & Co Fritudative Div General Motors Corp Fritudative Div General Motors Corp General Inpolement Corp NOTFOINT INC Retel VIANCE DEFT CoRP Landers Frary & Clark Masta Co Nasao L'Ulillies Corp NorGe Div BORG-WARNER CORP Presed Steel Co Thor Corp WEDITIONS Corp

# WATER CONDITIONERS

Permutit Co RHEEM MFG CO

#### WATER SUPPLY SYSTEMS

Aermotor Co Aurora Funny Co Bartes Mig Co Chicago Funny Co CRAME COMPANY CRAME COMPANY DECATURE FUNP CO CORP Demaing Co Dempater Mill Mig Co Edwards Co

Fairbanks Morse & Co FLINT & WALLING MFG CO Gardner-Denret Co Gorman-Rupp Co Gouida Pumpe Inc Heil Company Hudson (H D) Mfg Co Hummer Mfg Co Hummer Mfg Co Humer Mfg Co Lancaster Pum Ys Mfg Co Myere (F E) & Brother Co Myere (F E) & Brother Co Myere (F E) & Brother Co Pioneer Gen-E-Motor Corp Pomona Pump Co Red Jacket Mfg Co Bobbins & Myers Inc Saco-Lawell Shops Shetter (M) & Sons Co Wayre Home Equipment Co Wayre Home Equipment Co Wayre Home Equipment Co

#### WATERPROOFING COMPOUNDS, BASEMENT CISTERN Abeta Microsoft

Admistre 76 American Furesit Co AMERICAN STA-DRI CO AMERICAN STA-DRI CO AMERICAN STA-DRI CO AMERICAN WATCPTOOING CO BARRETT DIV ALLED CHEMICAL & DYE CORP Beimont Smelting & Refining Works CABD (SAMUEL) ING Constructed Abostos & Rening Corp Coddington & Di Mig Co Continental Abostos & Rening Corp Contenet abostos & Rening Corp FLINTKOTE CO FUENTROTE CO Forman-Ford & Co Fort Pitt Chemical Co Haynes Products Co Horn (A C) Co International Arguella Producta Ine KAY-TYE CO Materials & Treatment Co NGVA SALES INC PITTSBURGH PLATE GLASS CO PITTSBURGH PLATE GLASS CO FITT FOURCH PLATE GLASS CO Fortial Products Co Stantie Mig Co Sonneborn (L) Sons Ine Standard Dry Wall Products Stallizan Co Truscoa Laboratories Div Devoe & Reynolds Inc Tufferte Co Via Via Corp

# WATERPROOFING,

HITCOURL Adensite Co American Fluresit Co Ine American STA-DRI CO Bille Ridge Tale Co Ine Bolta Products Sales Ine Ceresit Waterproduk Corp Copros Ine Dery Corp Co Fort Pitt Chemical Co Harop Chemical Co Harop Chemical Co Horn (A C) Co Ine Johns, MANVILLE CORP KAY-TITE CO Leind Co Dinde Air Products Co Mineapolis Builders Supply Co Owie WORAF A SUPPLY CO Mineapolis Builders Supply Co Owie WORAF A SUPPLY Co Mineapolis Builders Supply Co Owie WORAF A SUPPLY Co Mineapolis Builders Supply Co Owie WORAF A SUPPLY CO Supply C

STANDARD DRY WALL PRODUCTS INC Skeelote Mfg Co Stonhard Co Stonhard Co Stonhard Fries Trucon Laboratories Int Trucon Laboratories Div Dewoe & Raynolds Inc Tuffalt Inc Yilla-Var Corp Walne Chemical Products Co Weather Seal Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

# WATERPROOFING,

MEMDIKANE AMERICAN ASPHALT ROOF CORP CABOT (SAMUEL) INC EARTETT DIV ALLIED CHEMICAL & DYE CAEY (PHILIP) NFG CO Celadri Corp FLINTKOTE CO Hom (A C) Co Inc JOHNS-MARVILLE CORP KAY-TITE CO Koppers Co Inc Lebon Co HINWAX CO Inc PITSSUBGEN PLATE GLASS EO Pressile Engineering Co Rametite Mig Co Inc SISALKRAFT CO SISALKRAFT CO SISALKRAFT CO SISALKRAFT CO TIENCO MIG CO SISALKRAFT CO SOMENOTI (L) Sons CO TEXAS CO TIENCO MIG CO SISALKRAFT CO SISALKRAFT CO SOMENOTI (L) SONS CO TIENCO MIG CO TIENCO MIG CO TIENCO MIG CO TIENCO MIG CO SISALKRAFT CO SOMENOTI (L) SONS CO TIENCO MIG CO TIENCO MIG CO TIENCO MIG CO SOMENOTI CO SOMENO

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# WATERPROOFING,

Belmont Smelting & Refining Works Inc Cereat Waterproofing Corp Event File Corp teal Co Gabson-Homans Co Horn (A C) Co Kedmont Mfg Waterproofing Co Inc Lelon Co Rametite Mfg Co Inc Sealcon Products Inc SISALKRAFT CO Somebort (L) Sons Inc Tauma Industries Inc Tauson Laboratories Div Devoe & Raynolds Inc Weather Seal Co

#### WATERPROOFING, SURFACE TYPE

Aberto Mfr ( Adensite Co Inc AMERICAN ASPHALT ROOF CORP American Fluresit Co In AMERICAN STA-DRI CO Anti-Hydro Waterproofing Co Armor Laboratories Inc BARRETT DIV ALLIED CHEMICAL & DYE CORP BIRD & SON INC Bolta Products Sale les Inc Bolta Products Salea Inc Breing Brothers Inc CABOT (SAMUEL) INC CALBAR PAINT & VARNISH CO CAMP Chemical Co Inc CAREY (PHILIP) MFG CO Certased Chemical Corp Certased Chemical Corp Certase Corp Ceresit Waterproofing Corp CERTAIN-TEED PRODUCTS CORP Chapman Chemical Co Coopers Creek Chemical Corp Devoe & Raynolds Co Inc Donley Brothers Dow Chemical Co Evererete Corp FLINTKOTE CO FLINTROT & Co Forman-Ford & Co Fort Pitt Chemical Co Homans Co Gibson-Homans Co Glastic Corp Glidden Co Harrop Chemical Co Horn (A C) Co Inc Hydrozo Products Hydrozo Products Inc JOHNS-MANVILLE CORP KAYTITE CO KAYTITE CO Lastik Products Co Inc Lasting Products Co Lebon Co Linde Air Products Co Lowebeo Ine Mar-Kay Mfg Co MEDUSA PORTLAND CEMENT CO Minwax Co Inc MIRACLE ADHESIVES CORP Mixtite Corp MOORE (GOODLOE E) CO Products Inc Nelsonite Chemical Pavinoleum Inc PECORA PAINT CO Pioneer Mfg Co PITTSBURGH PLATE GLASS CO Prima Products Inc PROTECTION PRODUCTS NEG CO Protective Papers Ranetite Mfg Co Reardon Co Rochond Products Co RUBEROID CO Rust-Oleum Corp Seaboard Plastics Corp Sealcon Products Inc Sonneborn (L) Sons Inc Spray-O-Bond Co STANDARD DRY WALL PRODUCTS INC Steelcote Mfg Co Stonhard Co

Stopall Waterproofing Mfrs Ine Sulfran Co Surface Protection Co Tamus Industries Inc TEXAS CO Trusson Laboratories Div Devoe & Raynolds Inforcte Co Inc Tuffarte Co Inc Tuffarte Co Inc Uta-va Geomic Laboratories Uta-va Geomic Laboratories Uta-va Geomic Laboratories Uta-va Geomical Products Co Wearne Chemical Products Co Werster We F) Cement Co Werster We F) Cement Co Werster We F) Coment Co Werster Werblants Inc Wildow 4 Williams Co Wurdack Chemical Co

#### WATERPROOFING, TRANSPARENT

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Adensite Co Inc American Fluresit Co Inc American Sta-DRI Co Anti-Hydro Waterproofing Co Bolta Products Sales Inc CABDA PAINT & VARMISH CO Calban Paint & VARMISH CO Calban Paint & VARMISH CO Certasal Chemical Corp Certasal Chemical Corp Certasal Chemical Corp Continential Assesses & Refining Corp Content A assesses & Refining Corp Gouter Paint Corp General Paint Corp Gibson-Homans Co Gilidden Co Harrop Chemical Co Harrop Chemical Co Harrop Chemical Co Mar-Kay Mfg Co Horn (L) Soas Inc Sonnebort (L) Soas Inc Sonnebort (L) Soas Inc Turcrete Co Inc Yiason Laboratories Div Deroce & Baynolds Inc Turcrete Co Inc Yiason Content Sure Sonnebort (L) Soas Inc Sames Industries Inc Sonnebort (L) Soas Inc Sames Industries Inc Sonnebort (L) Soas Inc Sames Industries Inc Turcrete Co Inc Yiason Caboratories Div Deroce & Baynolds Inc

#### ▶ WEATHERSTRIPPING

Accurate Metal Weatherstrip Co ALLMETAL WEATHERSTNIP CO AllMETAL WEATHERSTNIP CO Alber Mit Co Bariand Weatherstrip Material Co Bariand Weatherstrip Material Co Bearland Weatherstrip Material Co Define Co Hearland Weatherstrip Co Define Metal Strip Co Define With Co Gaziers' Tool Mfg Corp Ideal Co Katz Screen & Weatherstrip Co Lock Joint Window Co MacCutaRDE BE Scrives Co Mean Metal Weatherstrip Co Lock Joint Window Co MacCutaRDE Scrives Co MacCutaRDE Co Script Scrives Co Script Script Scrives Inc Matheral Weatherstrip Co Define Metal Weatherstrip Co Post Heal Weatherstrip Co Rese Metal Weatherstrip Co Post Weatherstrip Mfg Co Rese Metal Weatherstrip Co Prostic Engineering Co Prostic Weatherstrip Mfg Co Rese Metal Weatherstrip Co Rese Metal Weatherstrip Co Row SALES CO Security Co Securit

### COMBINATION SASH BALANCE

ALLMETAL WEATHERSTRIP CO CENTRAL METAL STRIP CO MASTER METAL STRIP SERVICE INC

APRIL 1953

WILWAUKEE STRIP SERVICE INC Weatherproof products corp. Zegers inc

# WEATHERSTRIPPING, DOOR

AND DOUBDOT DOTION Accurate Metal Weatherstrip Co Baltz (B N) & Co GEO STEEL PRODUCTS COMP GENTRAL METAL STRIP CO COLATE MIK Corp Dennis (W J) & Co Dorthin Metal Strin Mic Co MACKLANBURG-DUKCAN CO MASTER METAL STRIP SERVICE INC Security (O Security Co Security (Co Security Co Security (Co WASTER METAL STRIP SERVICE INC WASTER METAL STRIP SERVICE INC WASTER METAL STRIP WASTER SINC

#### ▶ WHEELBARROWS

American Steel Scraper & Wheelbarrow Co Atlas Car & Mg Co Chattanooga, Wheelbarrow Co Freuch & Heelt Div Kelsey-Hayes Wheel Co Goodret M F P Co Goodrear Tire & Rubber Co Jackson Mg to KEWANEE MF6 CO Lansing Co Novo Engine Co PRIME MOVER CO Seymour Mg Co Ine Sterling Wheelbarrow Co Toledo Wheelbarrow Co

#### WHEELS, GRINDING

Abrasive Products Inc Albertson & Co Inc Albertson & Co Inc Albertson & Co Inc Albertson & Co Inc Bay State Abrasive Products Co BRADFORD MACHINE TOOL CO BRADFORD MACHINE TOOL CO Carborundum Co Cortland Grinding Wheels Corp Decre & Co DREMEL MFG CO Faitbants Morse & Co General Hardware Co Goodrich Grieding Wheel Co Hamber MC CO Mid-West Abrasive Co Norton Co SIMONDS ABRASIVE CO DIV SIMONDS SAW A STEEL CO SKILL CORF Sterling Wheel Dir Cleveland Quarries Co

#### WINCHES, HAND

Bridgeport Chain & Mfg Co Clyde Iron Works Inc Erie Hoist Co Stephens-Adamson Mfg Co

#### WINCHES, TRACTOR AND TRUCK

American Hoist & Derrick Co Bridgeport Chain & Mig Co Four Wheel Drive Auto Co Franchauf Trailer Co Hyster Co OtiVER CORP CLETRAC DIV Original Endervs Co Round (David) & Son Shepard Niles Crane & Hoist Corp Stimmel Winch Co Stimmel Winch Co

#### WINDOW OPERATORS

Bommer Spring Hinge Co Ine Casement Hardware Co Chicago Spring Hinge Co CORRIN (P & F) DIV AMERICAN MARD-CORRIN (P & F) DIV AMERICAN MARD-CORRIN (P & F) DIV AMERICAN MARD-CORRING (P & Co ETTY (M S) & CO INC Gibura-Chinona Corp Hardware Products Ine Hartis Ine Horton Mfg Div Areo Corp Hardware (Noeph J) Sales Co Kaptur (Joseph J) Sales Co Kolbus (K) Corp L'N Closers Ine LOCKWOOD MARDWARE MFG CO New England Mfg & Supply Corp Norral Lock Co Div Segal Lock & Hardware Co

Parker (8) Hardware Mfg Co Beading Hardware Corp Bene-Craft Products RICHARDS-WILCOX MFG CO RUSSELL & ERWIN DIV AMERICAN HARD-WARE CORP SAGER-BARROWS DIV YALE & TOWNE SAGER & CO Segal Lock & Hardware Co Ine Statley WORKS DOOR CONTROL DIV WAGNER MFG CO

### WINDOW SASH PULLEYS

Champion Hardware Co Chamtell Hardware & Tool Co Civerland Lock Works GORBIN (P & F) DIV AMEBICAN HARD-WARE CORP GETTY (H S) & CO INC Grand Raulds Hardware Co GRACT PICLE & WARDWARE CO GRACT PICLE & WARDWARE CO Industrial Iron Works HINGE MICH CO HOBELTAI IRON WORKS HORE CO Phoenis Lock CO Stalley Corp STANLEY WORKS

# WINDOW SCREENS, ALUMI-

NUM FRAME ALUMATIC CORP OF AMERICA Aluminum Window Corp Barnhart (A W) Co Kanto Mfg Corp Lubman Corp Metaleraft Server Co Metaleraft Server Co BUDS NETALS CO BUILDING PROD-UCTS DIV FUDIGER-LANC CO Screens & Pahricated Metals Corp Steel Window Producta Co Winsulite Mfg Co

#### WINDOW SCREENS,

ROLLING Barnhart (A W) Co Kano Mfc Corp KEYSTONE WIRE CLOTH CO Lockhart Mfg Corp Metalersit Serven Co RUDIGER-LANG CO RUDIGER-LANG CO Stoel Window Producta Co Steel Window Producta Co

# WINDOW SCREENS, STEEL

A B C Steel Equipment Co ALUMATIC CORP OF AMERICA Barnhart (A W) Co GECO STEEL PRODUCTS CORP Chamberlin Co of America Inc Cincinnat FJ Screen Co Corpo - Miracle Products Co Corto Steel Fy Screen Dir Russell (F C) Co Continental Screen Co COPCO STEEL & ENGINEERING CO COPCO STEEL & ENGINEERING CO Cortot Steel Products Inc Dennig Routers FEMESTRA BUILDING PRODUCTS Gaudrel Steel Co Gouderart Metal Incoders Co HoPerS (W WINDWS INC Ingernoll Sitel Dir Borg-Warner Corp Johnson Metal Products Co Kane Mig Corp Kewanete MFG CO Metalcraft Screen Co Metalcraft Screen Co Metalcraft Screen Co Robins Mig Co Utolgers Co MUDIGER-LACE CO Steel Co Revention Screen Co Robins Mig Co Hew MORACH MACHINERY & STAMPING CO Steel Const. Friderict Metals Corp Security Rash & Screen Co SteelCRAFT MFC CO Heresal Fabricators Wilson (L S) Mig Co

### WINDOW SCREENS, SUN

### REFLECTING

Flex-0-Glass Mfg Co Ingersoll Steel Div Borg-Warner Corp KAISER ALUMINUM & CHEMICAL CORP Warp Brothers

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

# WINDOW SCREENS, WOOD

ALUMATIC CORP OF AMERICA American Rash & Door Co American Rash & Door Co Barnhart (A W) Co Barnhart (A W) Co Barnhart (A W) Co Barnhart (A W) Co CARR ADAMS & CELLER CO Commental Serven Co Commental Serven Co Commental Serven Co Curris Cos InC Dennis (W J) & Co Fordyce-Crossett Lamber Co General Woolfrag Mfg Co Hendsiter Coil Spring Mfg Co Holister Co Marquart Millwork Co Marquart Millwork Co Northwest Door Co Co Robel Halual Door Co Northwest Door Co Robinson Mfg Co Rocht Aluser Co Robinson Mfg Co Rocht Aluser Co Robinson Mfg Co Rocht Aluser Co Seneca Lumber & Millwork Co Selumacler (F F) Co Selumeacler Havicators Went Coast Seren Co White Pine Sash Co

#### WINDOW SILLS & STOOLS, METAL

Accurate Metal Weather Strip Co ACTMA STEEL PRODUCTS CORP Alexander Sill Co Alexander Sill Co BUILDERS MFG CO Donley Routhers FEMESTRA BUILDING PRODUCTS INLAND STEEL PRODUCTS CO Knapp Brothers MFG Co Soule Steel Co TRUSCON STEEL CO Wollacer Steel Corp

#### WINDOW SURROUNDS, STEEL

BUILDERS MFG CO HOPE'S WINDOWS INLAND STEEL PRODUCTS CO TRUSCON STEEL CO

#### WINDOWS, ALUMINUM, GLASS LOUVERS

Clearview Louver Window Co MARMET CORP Outside Venetian Blind Co Solar Air-Flo

#### WINDOWS, AWNING, METAL

THE IAL AIR CONTROL PRODUCTS INC AII-Lite Metal Window Co All-Lite Metal Window Corp Brown & Grist Criff Steel Products Inc Sub Lundell-Eckberg Friff Steel Products Inc Sub Lundell-Eckberg Fwelching Co Fenestra BuilLDING PRODUCTS Fentron Steel Works Inc Harris Inc Window Div

LUDMAN CORP MIAMI WINDOW CORP Bon-del Ine Stewart Iron Works Co Ine Super-Vent Co Trim-Set Corp Sub Fentron Steel Works

TRUSCON STEEL CO Valley Metal Products Co

# WINDOWS, AWNING,

ANDERSEN CORP CARR ADAMS & COLLIER CO Fox Brothers Mig. Co GATE CITY SASH & DOOR CO LUDMAN CORP ROLSCREEN CO

#### WINDOWS, BARN, STEEL

Adams Co CECO STEEL PRODUCTS CORP Clay Equipment Corp COPCO STEEL & ENGINEERING CO inc Products Inc. roft G Donley Brothers FENESTRA BUILDING PRODUCTS Gooderaft Metal Products Co MOPE'S WINDOWS INC H & B Mfg Co Hudson (H D) Mfg Co INLAND STELL PRODUCTS CO James Mfg Co James Mfg Co Kaptur (Joseph J) Sales Co KEWANEE MFG CO Klauer Mfg Co Louden Machinery Co Mesker Brothers Ney Mfg Co Olson Mfg Co Starline Inc STEELCRAFT MFG CO TRUSCON STEEL CO UNION ALUMINUM CO Valley Metal Products Co Inc VENTO STEEL PRODUCTS CO INC

#### WINDOWS, BARN, WOOD

American Sash & Door Co ANDERSEN CORP Buffelen Lumber & Mfg Co CARR ADAMS & COLLIER CO Cole Mfg Co CURTIS COS INC Farley & Loetscher Mfg Co GREGG & SON INC Hines (Edward) Lumber Co Huttig Mfg Co LONG-BELL LUMBER CO Marquart Millwork Co Morgan Co Morgan Sash & Door Co National Screen Door Co Northern Sash & Door Co Northwest Door Co Northwert Boor Co Northwest Door Co Phenix Mfg Co Roach & Musser Co Roach Island Millwork Co Segelke & Kohlhaus Co Silerest Co Spokane Sash & Door Co White Pine Sash Co

#### WINDOWS, BASEMENT, ALUMINUM

ALCASCO PRODUCTS INC CROFT STEEL PRODUCTS INC FLYNN (MICHAEL) MFG CO KAUTMANE COPP KEWANEE MFG CO UNION ALUMINUM CO Valley Metal Products C

#### **WINDOWS, BASEMENT** STEEL

Adams Co Barnhart (A W) Co Bogert & Carlough Co Decatur Iron & Steel Co Fries & Son International Steel Co FILES & Sen International Steel Co KEWANEE MFG CO THORN (J S) CO THORN (J S) CO STEEL CORP STEEL CORP Valley Metal Products Co VENTO STEEL PRODUCTS CO INC

#### WINDOWS, BASEMENT, WOOD

ANDERSEN CORP Anderson (V E) Mfg Co ANGEL NOVELTY CO Burke Millwork Co CARR ADAMS & COLLIER CO Cale Mfg Co CURTIS COS INC ETLING WINDOW Farley & Lootscher Mfg Co GREGG & SON INC Hines (Edward) Lumber Co Huttig Mfg Co Ideal Co Kinzua Pine Mills Co LONG-BELL LUMBER CO Long Lake Lumber Co Marquart Millwork Co Morgan Co Northern Sash & Door Co Northwest Door Co Pacific Mutual Door Co Notine Radford Co Roach & Musser Co Rock Island Millwork Co ROLSCREEN CO ROLSCREEN CO WEYERHAEUSER SALES CO

WINDOWS, BASEMENT AND UTILITY, STEEL

Adams Co ALCASCO PRODUCTS INC

Bayley (William) Co BOSTWICK STEEL LATH CO CECO STEEL PRODUCTS CORP Clay Equipment Corp COPCO STEEL & ENGINEERING CO Crittall Inc Croft Steel Products Inc Donley Brothers FENESTRA BUILDING PRODUCTS FLYNN (MICHAEL) MFG CO Goadriel Steel Co Gooderaft Metal Products Co HOPE'S WINDOWS INC II & R MIR Co INLAND STEEL PRODUCTS CO Kaptur (Joseph J) Sales Co KEWANEE MFG CO MAJESTIC CO Mesker Brothers Modern Stainless Specialties Co Div Modern Electric Laboratory NEW MONARCH MACHINE & STAMPING CO Soule Steel Co Steelcraft MFG CO Truscon Steel Co Sub Republic Steel Corp U S Gypsum Co Vento Steel Products Co INC

# WINDOWS, CASEMENT,

#### ALUMINUM

A B C Steel Equipment Co I ADAMS & WESTLAKE CO ALCASCO PRODUCTS INC All-Lite Metal Window Co All-Lite Metal Window Corp Bayley (William) Co Clark-Babbitt Industries Inc Compo-Miracle Products Co Croft Steel Products Inc Cumoles Products Inc Co Ine Croft Steel Products Inc Cupples Products Corp Eagle-Picher Co Fentron Steel Works Inc Flour City Ornamental Iron Co FLYNN (MICHAEL) MFG CO GENERAL BRONZE CORP GENENAL BARMAN Harris Inc Higgins INC Holister Coil Soring Mfg Co Hofe's WikDows INC Ingeroil Steel Die Borg-Warner Corp KEWANEE MFG CO Heatmeering Co Maco Corp MARMET CORP METAL ARTS MFG CO Metal Window Service C Pennsylvania Wire Glass

Pennsyhania Wire Glass Co PETERSON WINDOW CO REYNOLOS HETALS CO BUILDING PROD-UCTS OLY RUSSELL (F C) CO Storing Windows Inc Storing Windows of Aluminum Inc Storing (Albert) & Co THORM (J S) CO THORM (J S) CO Timm Industries Inc Trim-Set Corp Sub Fentron Steel Works Inc TRUSCON STEEL CO SUB REPUBLIC STEEL CORP Union Aluminum Co Inc Universal Window Co

Universal Window Ce V-Seal Corp Valley Metal Products Co Ware Laboratories Inc Watco Engineering Inc Watcher-Proof Co Williams Bros Corp Williams Bros Corp William (L S) Mfg Co Windalume Corp

#### WINDOWS, CASEMENT, STEEL

A B C Steel Equip Co Allen Steel Products Barnhart (A W) & Co Bayley (William) Co Bayley (William) Co CECO STEEL PRODUCTS CORP COPCO STEEL & ENGINEERING CO Inc cel Products Inc from & Steel Co Tout Surel rom & Steel Co Decatur Iron & Steel Co FEMESTRA BUILDING PRODUCTS FLVNN (MICHAEL) MFG CO Gooderaft Metal Products Co MOPE'S WINDOWS INC International Steel Co Kaptur (Joseph J) Sales Co Kaptur (Joseph J) : KEWANEE MFG CO Mesker Brothers MESKER (GEORGE L) STEEL CORP Michel & Pfeffer Iron Works Micner & Frington Co Potts-Farrington Co REPUBLIC STEEL CO RUSSELL (F C) CO Screens & Fabricated Metals Corp Sorie Steel Co STEELCRAFT MFG CO STEELCRAFT MFG CO Steel Vindow Products Co THORM (J S) CO TRUSCOM STEEL CO VENTO STEEL PRODUCTS CO INC Vimear Sales Co Williams & Williams Products Corp Wilson (L S) Mfg Co

WINDOWS, CASEMENT, WOOD

American Sash & Door Co ANDERSEN CORP er Co Inc Biles-Coleman Lumber Burke Millwork Co CARR ADAMS & COLLIER CO CARR AUGUST Cole Mfg Co CURTIS COS INC Farley & Loetscher Mfg Co GREGG & SON INC (Edward) Lumber Co Hines (Edward) Lumber Co Huttig Mfg Co Huttig Sash & Door Co Ideal Co Keystone Frame & Mfg Co Kinzua Pine Mills Co Keystone Frame & Mfg Co Kinzua Pine Wills Co LOMC-BELL LUMBER CO MALTA MFG CO Marquart Millwork Co Morgan Co Northern Sash & Door Co Northwest Boor Co Pacific Mutual Door Co Pacific Mutual Co Radford Co Roach & Musser Co Rock Island Millwork Co Rock Island Millwork Co ROLSCREEN CO Segelke & Kohlhaus Co Silerest Co Snedaker (Frank C) & Co Spokane Sash & Door Co Walworth Co WEATHER-SEAL INC White Pine Sash Co

#### WINDOWS, COMBINATION SCREEN AND STORM SASH. ALUMINUM

Alseo Inc. ALUMATIC CORP OF AMERICA Aluminum Window Corp CECO STEEL PRODUCTS CORP Compo-Miracle Products ( GENERAL BRONZE CORP GEWERAL BRONZE CORP Engla-Picher Co Holister Coil Spring Mfg Co McKinley (Orman G) Co RUSSELL (F C) CO Soil Storing Window Steel Windows Co Inc Storing Windows Co Inc Storing Windows of Aluminum Inc 1460-4 (-) 5 CO V-Seal Corp Watco Engineering Inc Weather-Proof Co Winstrom Mfg Corp Winsulite Mfg Co

#### WINDOWS, COMBINATION SCREEN AND STORM SASH.

#### STEEL

Allied Metal Fabricators Ine ALUMATIC CORPORATION OF AMERICA Barnhart (A W) Co Bayley (William) Co Chamberlin Co of America Ine Clay Equipment Corp COPCO STEEL & ENGINEERING CO COPCO STEEL & ENGINEERING CO Corp-Jamestonn Mfg Corp FENESTRA BUILDING PRODUCTS GENERAL RENAZE CORP ALWINTITE DIV Ingernoll Steel Div Borg-Warner Corp Kane Mfg Corp Baptur (Joseph J) Sales Co Kaufmann Corp KEWANEE MFG CO Michel & Pfeffer Iron Works Michel & Pfeffer Iron Robbins Mfg Co TRUSCON STEEL CO

#### WINDOWS, COMBINATION SCREEN AND STORM SASH. WOOD

ANDERSEN CORP Anderson (V E) Mfg Co Angel Novelty Co Brown Graves Co Buckeye Screen & Weatherstrip Co Burrowes Corp CARR ADAMS & COLLIER CO CURTIS COS INC Farley & Loetscher Mfg Co Feather-Lite Mfg Co GREGE & SON INC Hemphill (A D) Co Hess Mfg Co HOPE'S WINDOWS INC Huttig Mfg Co Marquart Millwork Co Northern Sash & Door Co Orange Screen Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

Phenix Mfg Co Prentice (F W) & Co Prentice (F W) & Co Rock Island Millwork Co Security Ssab & Serven Co Self Storing Window Co Seneca Lumber & Millwork Co Sipokane Ssab & Door Co Spokane Ssab & Door Co Wabash Serven Door Co Window Co Window Co Yardley Industries

#### WINDOWS, DOUBLE-GLAZED, HERMETICALLY SEALED

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CARR ADAMS & COLLIER CO LIBBEY-OWENS FORD GLASS CO OHIO PLATE GLASS CO PITTSBURGH PLATE GLASS CO

#### WINDOWS, DOUBLE-HUNG, ALUMINUM

A B C Steel Equipment Co Inc ADAMS & WESTLAKE CO ALCASCO PRODUCTS INC Alson Inc Alsco Inc Aluminum Window Corp Atuminum Window Corp Bayley (William) Co CECO STEEL PRODUCTS CORP Clarks-Babbitt Industries Inc Compo-Miracle Products Inc Comples Products Corp Eacle Picher Co FLEET OF AMERICA INC FLEET OF AMERICA INC FLEET OF AMERICA INC Flour City Ornamental Iron C FLYNN (MICHAEL) MFG CO GENERAL BRONZE CO Harris. Inc. Holister Coil Spring Mi HOPE'S WINDOWS INC ring Mfg Co Kaufmann Corp KEWANEE MFG CO METAL ARTS MFG CO Nu-Era Window Co Paramount Casement Window Corp Paramount Casement Window Corp Pennsylvania Wire Glass Co PER-FIT PRODUCTS CORP PETERSON WINDOW CO REYNOLDS METALS CO BUILDING PROD-UCTS DIV RUSSELL (F C) CO Stertling Windows Inc Sterling Windows Inc TMORN (J S) CO Timm Industries Trim-Set Corp Sub Fentron Steel Works Inc Fuion Alimnium Co Inc Trim-Set Corp Son Fenters Union Aluminum Co Inc V-Seal Corp Valley Metal Products Co Ware Laboratories Inc Wareo Engineering Inc Weather-Proof Co Windalume Corp Window Corp of America

#### WINDOWS, DOUBLE HUNG, SAFETY

International Safety Window Corp

#### WINDOWS, DOUBLE HUNG, STEEL

ADAMS & WESTLAKE CO American Sheet Metal Work Pomeroy (S H) Co Inc Potts-Farrington Co RUSSELL (F C) CO RUSSELL (F C) CO Soule Steel Co Southern Wire & Steel Products Co Steel Window Products Co Sterling Windows Inc THORN (J S) CO TRUSCOW STEEL CO

#### WINDOWS, DOUBLE HUNG, WOOD

Ace Seal-Rite Sales & Window Mfg Co Inc American Sash & Door Co ANDERSEN CORP ANDERSEN CONP Anson & Gilker Co A B B Window Sales Co Bache (Semon) & Co Biles-Coleman Lumber Co Ine BINSWARGER & CO BINSWARGER & CO BINSWA SACE & CO BUNE MILLANCE CO FUTEN LUMBER & CO Cole MIT & A & COLLIER CO Cole Mfg Co CURTIS COS INC Dark Pine Industry Inc Deer Park Pine Industry Ine Dixon Industries ETLING WINDOW Farley & Lottscher Mfg Co General Woodcraft Co Goshen Sash & Deor Co GREGG & SON INC Hines (Edward) Lumber Co Hotchkiss Brothers Co Hurd Millwork Corp Hurd Millwork Corp Huttig Mfg Co

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Huttig Sash & Door Co Ideal Co Keystone Frame & Mfg Co Kinzua Pine Mills Co Letraco Building Products Lockwood Wood Products LONG-BELL LUMBER CO MALTA MFG CO MALTA MFG CO Marquart Millwork Co Missoula White Pine Sash Co Morgan Co Morgan Sash & Door Co Morgan Co Morgan Sash & Door Co N S W Co Northern Sash & Door Co Pacific Mig Co Pacific Mig Co Pacific Mitrael Door Co Phillips Hippe Lamber Co Phillips Miyroe Lamber Co Phillips Miyroe Lamber Co Radford Co Roach & Musser Co Robertson (A) & Son Inc Rockwell Sales Corp Bockwell Sales Corp Rock Island Millwork Co Rockwell Sales Corp R 0 W SALES CO Sercens & Fabricated Metals Corp Segelke & Kohlhaus Co Semling-Menke Co Silerest Co Snedaker (Frank C) & Co Wabash Sercen Door Co Western Fine Mfg Co Lid WEYERHAEUSER SALES CO White Pine Rash Co

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WINDOWS, GLASS BLOCK AND SLIDING SASH KIMBLE GLASS CO SUB OF OWENS-ILL-INDIS GLASS CO

# WINDOWS, HORIZONTAL

**GLIDING, METAL** GENERAL BROWZE CORP GLIDE WINDOWS INC NOVA SALES INC PETERSON WINDOW CO SLIDE-VIEW DOOR & WINDOW CO Vista Sliding Sash Co Vita Automatic Windows Inc

#### WINDOWS, HORIZONTAL **GLIDING, WOOD**

ANDERSEN CORP Anson & Gilkey Co Burke Millwork Co Farley & Loetscher Mfg Co GREGG & SON Chang Pine Mills Co IONG-RELL LUMBER CO Northwest Door Co Northwest Poor Co Silcrest Co Spokane Sash & Door Co Western Pine Mfg Co White Pine Sash Co

#### WINDOWS, LOUVER ALUMINUM

Fentron Steel Works Inc LUDMAN CORP METAL ARTS MFG CO Midwest Louvrelite Co PRO-TECT-U JALOUSIE CORP Trim-Set Corp Sub Fentron Steel Works Inc Trim-Set Corp Sub I Van Ness Louvre Co Ventilite Corp

#### WINDOWS, LOUVER, STEEL Stewart Iron Works Co Inc

#### WINDOWS, PIVOTED AND **PROJECTED ALUMINUM**

A B C Steel Equipment Co Aluminum Window Corp Barnhart (A W) Co Bayley (William) Co CECO STEEL PRODUCTS CORP Cupples Products Corp FLYNN (MICHAEL) MFG CO GENERAL BRONZE CORP Storms (Albert) & Co THORN (J S) CO Tipm Location Timm Industries Inc UNION ALUMINUM CO Universal Window Co Universal Window Co Valley Metal Products Ware Laboratories Inc Williams Bros Corp ets Co

#### WINDOWS, PIVOTED AND **PROJECTED, STEEL**

Adams Co Allen Steel Products Bayley (William) Co Bogert & Carlough Co CECS STEEL PRODUCTS CORP COPCO STEEL & ENGINEERING CO Crittall Inc Decatur Iron & Steel Co Crittall

FENESTRA BUILDING PRODUCTS FLYMM (MICHAEL) MFG CO Gooderaft MEAL Products II & R MTg Co HOPE'S WINDOWS INC International Steel Co KEWANEE MFG CO MANNEE CORP Marquart Millwork Co Mesker Rothers MESKER (GEORGE L) STEEL CORP Michel & Frefer Iron Works Inc REPUBLIC STEEL CORP Soule Steel Co Steel Window Products Co Stewart Iron Works Co THORN (J S) CO THORN (J S) CO VENTO STEEL PRODUCTS CO INC Pre

#### WINDOWS, PIVOTED AND PROJECTED, WOOD

FROJECIED, W Farley & Loetscher Mfg Hayman Window Co Huttig Sash & Door Co KEWANEE MFG CO Marquart Millwork Co Morgan Sash & Door Co Pacific Mutual Door Co Segelik & Kohlhaus Co Silcrest Co Mfg Co

WINDOWS, ROUND, WOOD CURTIS COS INC

#### WINDOWS, SECURITY, STEEL

CECO STEEL PRODUCTS CORP COPCO STEEL & ENGINEERING CO Crittall Inc Cront line Cront steel Products Inc FENESTRA BUILDING PRODUCTS FLVNN (MICHAEL) MFG CO HOPF'S WINDOWS INC International Steel Co Laster (Joseph 1) Unstern TRUSCON STEEL CO VENTO STEEL PRODUCTS CO INC

### WINDOWS, STORM,

ALUMINUM Alseo Inc Aluminum Window Corp BUCKEYE SCREEN & WEATHERSTRIP CO CECO STEEL PRODUCTS CORP Eagle-Picher Co Katz Screen & Weatherstrip Co Steel Window Products Co

# WINDOWS, STORM, STEEL

Adams Co Alsco Inc Aluminum Window Corp Barnhart (A W) & Co Chamberlin Co of America Croft Steel Products Inc Croft Steel Products Inc Decatur Iron & Steel Co FENESTRA BUILDING PRODUCTS Holister Coil Spring Mig Co HOPE'S WINDOWS INC Ingersoll Steel Div Borg-Warner Corp HUFE'S MALE DIV BORG-WAINER COM Kane Mfg Corp KEWANEE MFG CO Lockhart Mfg Corp Mesker Brothers NEW MONABCH MACHINE & STAMPING CO Orange Sereen Co Paramount Casement Window Corp Robbins Mfg Co MUSSELL (F C) CO Neurity Sash & Sereen Co Security Sash & Sereen Co Soule Steel Co Starling Inc. MFG CO Starline Inc STEELCRAFT MFG CO Steel Window Products Co Sterling Windows of Aluminum TRUSCON STEEL CO Universal Echnicator Universal Fabricators VENTO STEEL PRODUCTS CO INC Ware Laboratories Inc Warther-Proof Co Weather-Proof Co Williams Oil-O-Matic Div Eureka Williams Corp Wilson (L 8) Mfg Co

WINDOWS, STORM, WOOD

ANDERSEN CORP Anderson (V E) Mfg Co BROWN GRAVES CO Burke Millwork Co CARR ADAMS & COLLIER CO Chamberlin Co of America Inc Cole Mfg Co Continental Screen Co Cole Mfg Co Continental Screen Co CURTIS COS INC Farley & Loetscher Mfg Co

GREGG & SON INC Hemphill (A D) Co Hines (Edward) Lumber Co Hoosier Sash & Door Co Huttig Mfg Co Huttig Sash & Door Co Kinzua Pine Mills Co LONG-BELL LUMBER CO LONG-BELL LUMBER CO Marquart Millwork (co Missoula White Pine Sash Co Morgan (co Morgan Co Morgan Co Morgan Sash & Door Co Northeren Deor Co Northeren Deor Co Pacific Mutual Deor Co Phenix Mig Co Inc Prentice (F W) & Co Deorb (c) Murae Co Prentice (F W) & C Roach & Musser Co Robbins Mfg Co Robbins Mfg Co Rock Island Millwork Co MUSSELL (F C) CO Schumacher (F E) Co Segelke & Kohlhaus & Co Seneca Lumber & Millwork Co Silerest Co Spokane Sash & Door Co WEATHER-SEAL INC White Pine Sash Co Wilson (L S) Mfg Co Window Conditioning Co

#### WINDOWS, VERTICAL GLID-ING, ELECTRICALLY OPER-ATED

RUSSELL (F C) CO Vita Automatic Windows Inc

WINDOWS, WOOD, WITH LOUVERS BELOW

Solar Air-Flo Co

#### WIRE

BERGER MEG CO DIV REPUBLIC STEEL KEYSTONE WIRE CLOTH CO

#### WIRE, BARBED

American Chain Link Fence Co AMERICAN STEEL & WIRE CO Bambrick (Bichard J) Bethlehem Steel Co COLORADO FUEL & IRON CORP Corp Continental News Voi Conperved Steel Co JONES & LAUGHLIN CORP KEYSTONE STEEL & WIRE CO NICHOLS WIRE & ALUMINUM CO Northwestern Steel & Wire Co Continental Pittsburgh Steel Products Co REPUBLIC STEEL CORP Sheffield Steel Co Sheffield Steel Corp TENNESSEE COAL IRON & RR CO SUB

WIRE, ELECTRICAL AMERICAN STEEL & WIRE CO Anaconda Wire & Cable Co CHASE BRASS & COPPER CO Coperreld Steel Co Essex Wire corp Paranite Wire & Cable Div General Cable Corp Sub Anaconda Copper Co CENERAL ELECTRIC CO CONSTRUCTION MATERIALS OVY Works Dir Okonite Co National Electric Products Corp Revere Copper & Brass Inc Roobling's (John A) Sous Co U S Bubber Co

#### WIRE, GALVANIZED STEEL

American Chain Link Fence Co AMERICAN STEEL & WIRE CO Armco Steel Corp Bethlehem Steel Corp Century Fence Co COLORADO FUEL & IRON CORP St Continental Self (W) Co Johnson Steel & Wire Co Johnson Steel & Wire Co Johnson Steel & Wire Co Keystone Steel & Wire Co Laclede Steel Co Nichols Wire & Aluminum Co Northweater Steel & Wire Co Pittsburgh Steel Products Co REPUBLIC STEEL CORP Seneca Wire & Market Sheffield Steel Corp TENNESSEE COAL INON & RAILROAD CO WICKWIRE SPENCER STEEL DIV COLORADO FUEL & INON CORP Wilson Steel & Wire Co Youngstown Sheet & Tube Co

Manufacturers' Names and Addresses Start on Page D-61 Manufacturers' Brand Name Identifications Start on Page D-52

WIRE, TIE

P WIRE, TIE Alabama Metal Lath Co American Brass Co AMERICAN STEEL & WIRE CO Bethlehem Steel Corp BOSTWICK STEEL LATH CO Copperweld Steel Co INLAND STEEL PRODUCTS CO INLAND STEEL PRODUCTS CO International Nickel Co Inc KEYSTONE STEEL & WIRE CO NATIONAL GYPSUM CO PENN METAL CO INC Symons Clampt & MFG CO TRUSCON STEEL CO U S GYBUNDO U S GYBUNDO U S GYBUNDO COLORADO FUEL & IRON CORP

#### WIRING, ELECTRICAL, MULTI-OUTLET

AMERICAN TELEPHONE & TELEGRAPH CO

#### WIRING SYSTEMS, REMOTE CONTROL

GENERAL ELECTRIC CO CONSTRUCTION MATERIALS DEPT Touch-Plate Corn

#### WOOD, PLASTIC

Boyle-Midway In Durbam (Donald) Co PITTSBURGH PLATE GLASS CO

#### WOOD SEALERS

Co Aetna Plywood & Veneer Co Akron Paint and Varnish Co AMERICAN FLOOR SURFACING MACHINE C0 C0 ATLAS PLYWOOD CORP BRUCE (E L) C0 Chapman Chemical Co Deveo & Raynolds Inc Du Pont (E I) de Nemours Co Forman-Ford & Co LINSEED GIL PRODUCTS Malex Chemical Corp Pratt & Lambert Inc SHERWIN-WILLIAMS CO U S PLYWOOD CORP

#### WOODWORKING MACHINES

American Woodworking Machine Co ATLAS PRESS CO Beach Mfg Co BLACK & DECKER MFG CO BOICE-CRANE CO BOICE-CRANE CO Buse Macline Works Chase Turbine Mfg Co Chattanouga Machinery Co Circo Tool Co C K L Machinery Co Consolidated Machinery & Supply Co Ltd CUMMINS-CHICAGO CORP CUMMINS PORTABLE TOOLS DUR PORTABLE TOOLS DUR Units Machine Co Dewalt INC Ekstrom Carison & Co Curtis Machine Corp Dependuble Machine Co DEWALT INC Experited in the Experiment Start of the Experiment Forster Mig Co Hanchett Mig Co Hanchett Mig Co Hanchett Mig Co Hermance Machine Co Hermance Machine Co Hermance Machine Co Holmes (E B) Machinery Co Janes Superior Machine Co Janes Superior Machine Co Master Woodworker Mig Co Melloy Machinery Mirs Metritt-Monsanto Corp Muskegon Machine Co Diarem Machine Voris Muskegon Machine Co Diarem Machine Works Inc Diared Machine Works Inc Diared Machine Work Inc Palmer Machinery Co PARKS WODWORKING MACHINE CO PONTER-CABLE MACHINE CO Power-King Tool Corp Powermatic Machine Co Pringle & Brodie Machinery Co Pringle & Brodle Michinery Co Richardson (1 S) Co BOCKWELL MFG CO DELTA POWER TOOL DIV SKIL COMP STANLEY ELECTRIC TOOLS DIV STANLEY WORKS Stetson-Ross Machine Co Tanner Machiner Co Tanner Machiner Dir Kearner & Trecker Corp Walker-Turner Dir Kearner & Trecker Corp Walker Strumer Dir Kearner & Trecker Corp Wilfmer (BAXTER D) & SON INC Wilfmon Saw Dir Media Machine Works Ine Woods (8 A) Machine Co Yastes-American Machine Co

# **1953 American Builder Directory**

# SECTION II

# **Brand Names**

### **Alphabetical List of Building Products and Equipment**

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BRAND NAMES used to identify principal building prod-ucts and equipment of major manufacturers are listed in this section in alphabetical order with the names of manufacturers using the brand names. Trade and brand names popularly used in the building industry are listed irrespective of their registration. This selective list is presented for the

convenience of builders, contractors, architects and retail material dealers who will find it helpful in identifying the manufacturers of certain building products and equipment.

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The names of the manufacturers are listed after the brand or trade name. The addresses of the manufacturers will be found in Section III beginning on page D-61.

America

Corp ARLON-

Co

tries Inc.

Corp

Inc

ATLAS

Co

Corp

Co

mental Iron Co

ARISTO—Fiat Metal Mfg Co ARISTO-BRIC—Ruberoid Co ARISTOCRAT—Helt Mfg Co ARISTOFLEX—Mastic Tile Corp of

**ARLINGTON**—American Radiator

& Standard Sanitary Corp ARLINGTON SQUARE—American Radiator & Standard Sanitary

ARLON—Armstrong Cork Co ARMOLITE—Bird & Son Inc ARMORPLY—U S Plywood Corp

ARMSTRONG-STEDMAN-Arm-

strong Cork Co ARRESTONE—Armstrong Cork Co ARRO-LOCK—U S Gypsum Co

ARROW-Keystone Steel & Wire

ART BRIC-Bird & Son Inc

ARTCRAFT-Huntington Indus-

ART IN IRON-Artcraft Orna-

ASBESTILE-Johns-Manville Corp

Atlas Press Co ATLAS—Universal Atlas Cement

ATTICVANE-Westinghouse Elec-

tric Corp Sturtevant Div

AURORA—Barber-Greene Co AUTOCOAL—Crane Company AUT-0-DOOR—Richards-Wilcox

AX—Aldrich Co AXIFLO—Westinghouse Electric

n

**BADGER-Milwaukee Flush Valve** 

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A-12-Armstrong Cork Co

Mfg Co AUTO-LOK—Ludman Corp

ART EDGE-Bird & Son Inc.

.

- ACCOTEX—Armstrong Cork Co ACL—Owens-Illinois Glass Co ACME NESTABLE—Republic Steel
- Corp ACME—Acme Appliance Mfg Go ACME—Eagle Lock Co ACME—Certain-teed Produc

Products

Corp ACME-Keystone Steel & Wire Co ACME-Inland Steel Products Co ACOUSTI-CELOTEX-Celotex Corp

- ACOUSTILITE-Insulite Div Minnesota & Ontario Paper Co ACOUSTIMASTIC-Pecora Paint
- Co
- ACOUSTONE-U S Gypsum Co ACRATHERM-Minneapolis-Honeywell Regulator Co
- ACROFLAME-American Radiator & Standard Sanitary Corp
- AD-AIRE-Carter-Waters Corp A-D BOARD-Carey (Philip) Mfg
- Ca ADJUSTO-Milwaukee Flush
- Valve Co ADMIRAL—Fiat Metal Mfg Co
- ADURO-Flintkote Co
- AEROFAN-Pryne & Co Inc AEROLUX-Johnson (S T) Co
- "AETNA"-Aetna Steel Products
- Corp AETNA—Eagle Lock Co AGATITE—Certain-teed Products
- Cerp AGWI-American Radiator
- Standard Sanitary Corp AIRACOUSTIC—Johns-Manville Corp
- AIR CONTROL PROD INC-Air Control Products Inc AIRSTAT—Minneapolis-Honeywell
- **Regulator** Co
- AIRTITE-Inland Steel Products Co
- AIRTROL-Bell & Gessett Co
- AIR-TURN—Barber-Colman Co AIR-VENT—Ruberoid Co
- AIR WAVE-Trade-Wind Motorfans Inc
- AJAX—Sherwin-Williams Co AKOUSTIKOS—Johns-Manville
- Corp ALACROME-Macklanburg-Duncan Co

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ALDEN-American Radiator Standard Sanitary Corp ALDURA—New York Wire Cleth Co ALGOMA—U S Plywood Corp

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- ALGONITE-U S Plywood Corp ALLERTON-American Radiator &
- Standard Sanitary Corp ALLIANCE WARE-Alliance Ware
- Inc
- ALLIGATOR-Allith-Prouty Inc.
- ALLWEATHER-Flintkote Co ALPINA-Inland Steel Products Co
- ALSYNITE-Alsynite Co of America
- ALUMATIC-Alumatic Corn of America
- ALUMATIC DELUXE Alumatic **Corp of America**
- ALUMATIC 3 TRACK-Alumatic Corp of America ALUMATIC ROYAL — Alumatic
- Corp of America ALUMINUM STRIPE—Keystone
- Steel & Wire Co ALUMINUM TOP-Keystone Steel
- Wire Co ALUMNI-DROME-Reynolds Met-
- als Co
- ALWINTITE --- General Bronze Corp
- AMBLEROID-Keasbey & Mattison Co
- AMERCLAD-American Steel Wire Div—U S Steel Corp AMERICAN—American Ste
- Steel Wire Div—U S Steel Corp MERICAN "B" & "C"—The AMERICAN
- American Floor Surfacing Machine Co
- AMERICAN DELUXE-The American Floor Surfacing Machine Co
- AMERICAN PENTRA-SEAL-The American Floor Surfacing Machine Ce
- **RENTAL**-American AMERICAN
- Floor Surfacing Machine Co AMERICAN SANDER PLANE-The American Floor Surfacing Machine Co
  - **List of Manufacturers' Names** With Addresses Starts on Page D-61

AMERICAN STANDARD-American Radiator & Standard Sanitary

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- Corp AMERICAN SUPER 8-The American Floor Surfacing Machine
- Co AMEROCK-American Cabinet
- Hardware Corp AMWELD—American Welding &
- Mfg Co ANCHOR—Barrett Div Allied Chemical & Dye Corp
- ANCHOR—Besser Mfg Co ANCHOR—Celotex Corp ANCHOR—Lufkin Rule Co
- ANCHORFAST-Independent Nail
- & Packing Co ANCHOR-LOK—Barrett Div Allied Chemical & Dye Corp
- ANDAL-Fawsco Mfg Div Falls Stamping & Welding Co ANDERSEN FLEXIVENT-Ander-
- sen Corp
- WINDOWALLS-An-ANDERSEN
- dersen Corp ANDERSON-Westinghouse Elec-
- Wire Co
- A-1-Cabot (Samuel) Inc
- APAC—Keasbey & Mattison Co APARTVENT—Nelson (Herman)
- **APMI**—Associated Plywood Mills

- ica
- ucts Co
- ARCO—American Radiator Standard Sanitary Corp
- RCOFLAME—American Radiator & Standard Sanitary Corp
- ARDEN—U S Gypsum Co ARGOTILE—Flintkote Co ARIDIZE-U S Gypsum Co

- BADGER—U S Gypsum Co BAILEY—Stanley Works BAKER PERFECT—American Steel & Wire Co

AMERICAN BUILDER

- tric Corp Sturieventy Co ANGEL—Angel Novelty Co ASBESTOCEL-Johns-Manville ASBESTO-LITE\_Kay-Tite Co ASQU—Carey (Philip) Mfg Co ATLANTIC BREEZE—Pryne & Co

- Inc
- Inc AQUADAM—Johns-Manville Corp AQUAPEL—Zonolite Co AQULUX—Johnson (S T) Co ARALUM—Alumatic Corp of Amer-

- ARCHITECT-Bird & Son Inc

- Tools Div Cummins-Chicago
- BALSAM-WOOL-Wood Conversion Co BANKHEAT-Johnson (S T) Co
- BANNER-Tennessee Coal Iron &
- Railroad Co BANZAL-Pittsburgh Plata Glass
- BARCO-Barco Mfg Co

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- BARCOL-Barber-Colman Co BARCOL OVERDOOR-Barber-Colman Ce
- BARNHIDE-Pittsburgh Plate Glass Co.
- BARRETT-HOLT-Barrett Div Allied Chemical & Dye Corp
- BATH MAID-Kitchen Maid Corn
- BAX-BOARD-U S Gypsum Co
- BEAR-Samson Cordage Works
- BEAUTY QUEEN-Toledo Desk &
- BEAUTY WARE-Briggs Mfg Co **BEAVER**\_Certain-tead Products
- Corn BEAVER-Samson Cordage Works
- BECKMAN-DAWSON-Flintkete Ce BED ROCK—Stanley Works BEE GEE—Brown-Graves Co
- BEEHIVE BRAND-Gabot (Samuel) Inc
- BEHR-CAT-Behr-Manning Corp
- BELL—Keasbey & Mattison Co BELL PRIME MOVER—The Prime
- Mover Co **BELSAW**—Belsaw Machinery Co
- BEND-BOARD-Marsh Wall Products Inc
- **BENEFIRE**—Bennett-Ireland Inc
- BENEFORM-Bennett-Ireland Inc
- BEN FRANKLIN-U S Gypsum Co
- BERLOY-Berger Mfg Co Div Re-public Steel Corp
- BERMICO—Brown Company BERNARD—Sargent & Co
- BERRY-Steel Door Corp BESSER-Besser Mfg Co
- BESSLER-Bessler Disappearing
- Stairway Co BEST BROS—National Gypsum Co
- REST-VENT Per-Fit Products Corn
- BESTWALL-Certain-teed Products Corp
- BETTER HOMES & GARDENS Meredith Publishing Co
- BEVIL-DEVIL-Kimball Mfg Co
- Inc
- B & G—Bell & Gossett Co BIG CHIEF—Flintkote Co BIG CHIEF—Carlson & Sullivan
- **BIG FOUR-U S Gypsum Co**
- **BIGMESH**-Inland Steel Products Co
- BILCO-Bilco Co
- BILDRITE—Insulite Div M nesota & Ontario Paper Co BIL-JAX—Bil-Jax Co Min.
- BILT-WELL-Carr Adams & Col-
- lier Co BIRD-Bird & Son Inc.
- BLACK ASPHALT-Carey (Philip)
- Mfg Co BLACK-BIRD-Samson Cordage Works
- BLACK & DECKER-Black Decker Mfg Co
- BLACK DIAMOND-Barrett Div
- Allied Chemical & Dye Corp BLACKHAWK-Arps Corp
- BLACK LAP-Garey (Philip) Mfg
- **BLACK MAGIC**—Miracle Adhesives Corp BLACK SHIELD—Barrett Div Al-
- lied Chemical & Dye Corp
- APRIL 1953

BALL-RITE \_\_ Cummins Portable BLACKSTONE\_American Asphalt BUSH\_The Bush Mfg Co

BUT-N-TITE-St Paul Corrugating

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CABLE KING-Yale & Towne Mfg

CABRANETTE-Murphy Door Bed

CALKELASTIC-Pecora Paint Co

CAPITOL-Gapitol Kitchens Div

of Hubeny Bros Inc CARADCO-Carr Adams & Collier

CARBOLIC-OL\_Sherwin-Williams

CAREYCEL-Carey (Philip) Mfg

CAREY COATING-Carey (Philip)

CAREYELAD-Carey (Philip) Mfg

Mfg Co CAREYSTONE-Carey (Philip)

CARGILL-Linseed Oil Prod Co

CARILLOY-United States Steel

Corp CARR-DOR-Carr Adams & Collier

**CARRARA**—Pittsburgh Plate Glass

CASCADE—Fiat Metal Mfg Co CASCADE—Miami Cabinet

CECO-Ceco Steel Prods Co

CECO-STERLING-Ceco Steel

**CEDARGRAIN**—Johns-Manville

CELLUFOAM—Masonite Corp CELO-BLOCK—Celotex Corp

CELOCHROME-Celotex Corp

CELO-SHINGLE-Celotex Corp

CELO-TEXBRIK-Celotex Corp

CEMENTICO-U S Gypsum Co

CEMESTO—Gelotex Corp CENTURY—Keasbey & Mattison

CERAMO-Carey (Philip) Mfg Co CERAMO-Ohio Hydrate & Sup-

**CERTILE**—Certain-teed Products

Corp CERTROCK—Certain-teed

CELO-SIDING-Celotex Corp

CELOCRETE-Celotex Corp

CELLADOORS-Bilco Co CELLASTAIRS-Bilco Co

CELL-U-BLANKET -

CELOBRIC-Celotex Corp

CELO-ROK-Celotex Corp

CELOTEX-Celotex Corp

Glass Co

Co

List of Manufacturers' Names

With Addresses Starts on Page D-61

aly Co

ucts Corp

GEMENTHIDE-Pittsburgh

CascaDe—mami Cabiner Di Carey (Philip) Mfg Co CASCADE—U S Gypsum Co CASENITE—Sherwin-Williams Co

CECO-MEYER-Coco Steel Prods

(Philip)

Div

Masonita

Plate

Prod-

CAREYLASTIC-Carey

CARRIER-Carrier Corp

CAS-Sisalkraft Co

CADET-Fiat Metal Mfg Co

CALICEL—Celotex Corp CALISTONE—Celotex Corp

**CANIEF**-Masonite Corp

Co

Co

Co

Mfg Co

Mfg Co

Mfg Co

Co

Co

Co

Cor

Corp

Prods Co

Ca

BX\_Aldrich Co

CHAMPION—Crane Company CHAMPION—Gunnison Homes Inc CHAMPION—U S Gypsum Co

CHAMPION-Vento Steel Products

CHAN-L-CROS-Junior-Pro Prod-

CHANNELFORM-Bostwick Steel

CHEROKEE-Mosaic Tile Co CHIC-MESH-Keystone Steel &

Wire Co CHIEF—Carlson & Sullivan Inc CHROMEDGE—B & T Metals Co CHROMSEAL—Pittsburgh Plate

CHRONOTHERM-Minneapolis-

Honeywell Regulator Co CHRYSLER-AIRTEMP-Airtemp

CLEAR-AIRE-Sin-Jin Products Co

CLETRAG-Oliver Corp Cletrac

CLIFFDALE-American Radiator

**CLIFFTON**—American Radiator &

Standard Sanitary Corp CLIMATE MASTER—Hess Co CLIMATROL—Mueller (L J) Fur-

**CLINCHER**—Inland Steel Products

CLOS-TITE-Carr Adams & Collier

COBURN C F & I-Wickwire Spencer Steel Div Colorado Fuel

COLCAP-Carey (Philip) Mfg Co COLEMAN-Coleman Co Inc

Hardware Corp COLONIAL—Miami Gabinet Div Carey (Philip) Mfg Co

COLONIAL TIMBERTEX\_Ruberoid

COLORADO - Wickwire Spencer

COLOR-CONDITIONING-Du Pont

COLOR-RITE-U S Gypsum Co COLOR-TONED-National Brass

COLOR TRIM-American Cabinet Hardware Corp COL-PLY—Flintkote Co

COLPRES 10-Timber Engineering

COMMAND-AIRE TWINS-Bryant

COMMANDER—Upson Co COMMODORE—Fiat Metal Mfg Co COMMODORE—Holt Mfg Co

COMMONWEALTH - Sherwin-Wil-

CONCRETE FORM PRESDWOOD-

Masonite Corp CONFETTI—Mastic Tile Corp of

**CONGRESS** - Samson Cordage

CONVECTOR-Mueller (L J) Fur-

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Works CONSERVOIL—Crane Company

CONTICO-Rubereid Co

COLUMBIA-Pittsburgh Plate

COLUMBIA-Samson Cordage

(E I) de Nemours & Co Inc

COLOR DYNAMICS-Pittsburgh

Plate Glass Co

Co

Co

Glass Co

liams Co

America

nace Co

**Heater Div AGE** 

Steel Div Colorado Fuel & Iron

(Samuel)

Cabinet

Co CM—Construction Machinery

& Standard Sanitary Corp

CLEAROLIN-Sherwin-Williams

Div Chrysler Corp

note Co.

Lath Co

Glass Co.

Div

nace Co

Sales Co

Inc

& Iron Corp

COLAS-Flintkote Co

COLLOPAKES-Cabot

COLONIAL-American

- Roof Corp BLACK TEMPERED PRESWOOD
- Masonrite Corp BLAXPHALT Sherwin-Williams
- Co BLAZECRETE \_\_ Johns-Manville Corn
- BLENDTEX-US Gypsum Co BLOCKEDGE-Certain-teed Pred-
- BLO-FAN—Pryne & Co Inc BLO-FAN—Pryne & Co Inc BLOK-MESH—Carter-Waters Corp BLOK-SEAL—Carter-Waters Corp BLO-POKE—Bennett-Ireland Inc
- BLOWETTE-Lau Blower Co BLOXOLITE-Hachmeister Inc
- BLUE BAND-American Gypsum
- Div Celotex Corp
- BLUE-CENTER—Upson Co BLUE RAPIDS—Certain-teed Prod-
- Co ucts Corp BLUE CIRCLE-Dunkirk Radiator CARBOSOTA-Barrett Div Allied Chemical & Dye Corp CAREX-C P 5-Carey (Philip)
- Corn
- BLUE RIBBON-Keystone Steel & Wire Co
- BLUE RIDGE-Libbey-Owens-Ford Glass Co
- BLUE RIDGE HAMMERED-Libby-**Owens-Ford** Glass Co
- CAREYDUCT-Carey (Philip) Mfg BLUE RIDGE LOUVREX-Owens-Ford Glass Co
- BLUE TIP-Simonds Saw & Steel
- Co RIUE VALLEY-US Gypsum Co
- BOICE-CRANE-Boice-Crane Co
- BONDCRETE-U S Gynsum Co
- BONUS-BUILT-Ford Motor Co
- BORED-IN-Sargent & Co
- BOR-IN-Lockwood Hardware Mfg
- BOR-LOC-Lockwood Hardware
- Mfg Co BOSS-RIB-Bostwick Steel Lath
- Co **BOSTWICK**—Bostwick Steel Lath
- BRACE-TITE-U S Gypsum Co
- BRAS-RITE—Sherwin-Williams Co BRIC-ROLL—Flintkote Co
- BRIC-SIDE-Johns-Manville Corp
- BRICSULATE-Carey (Philip) Mfg
- BRICK-TEX-Certain-teed Pred-
- ucts Corp BRID-JOINT-U S Gypsum Co
- BRIGGS BEAUTYWARE-Briggs
- Mfg Co BRIKSET-Medusa Portland Ce-
- ment Co BRIK-STRIP-Ruberoid Co
- BRILLIANT-Calbar Paint & Var-
- nish Co BRILLIANT FIRE-Ohio Foundry
- & Mfg Co BRIXMENT—Louisville Cement Co
- BROADLITE—Mississippi Glass Co BROAD SHADOW—Barrett Div Allied Chemical & Dye Corp
- **BROWN ELECTRONIK**-Minneapo-
- lis-Honeywell Regulator Co B T U-Carey (Philip) Mfg Co
- BUCKEYE-Buckeye Screen Weatherstrip Co BUCKEYE-Ohio Hydrate & Sup-

BUDGET-American Radiator &

**BUG-BLASTER**—Sherwin-Williams

Mfg Co BUILDWARE—Frantz Mfg Co BUNDYWELD—Bundy Tubing Co

FRAMES ---- Buildors

**Standard Sanitary Corp** 

**BURKS**—Decatur Pump Co

ply Co

Co

BUILDERS

Republic Steel Corp COOLITE—Mississippi Glass Co COOLITE—Pittsburgh Plate Glass P.a.

COPPER ARMORED-Sisalkraft Co COPPER CLIPT-Bird & Son Inc CORKBOARD—Armstrong Cork Co CORKOUSTIC—Armstrong Cork Co CORLON—Armstrong Cork Co CORNERITE—Penn Metal Co Inc CORNERITE—Truscon Steel Co CORONA DRY-Pittsburgh Plate

- Glass Co CORPORAL-Cartain-teed Prod-
- ucts Corp COR TEN-Tennessee Coal Iron & Railroad Co
- COVER COAT-U S Gypsum Co COVER-DRI-Barrett Div Allied
- Chemical & Dye Corp CRAFTCO-National Gypsum Co
- CRAFTCORD COVER-DRI-Flint-
- kote Co CRAFT-PAK-Masonite Corp
- CRAW-FIR-DOR-Fir Door Insti-41140
- CREONOID-Barrett Div Allied Chemical & Dye Corp CRESCENT GROUND -timande
- Saw & Steel Co CROCUS—Samson Cordage Works
- CROSLEY-Crosley Div Avco Mfg Corn
- CROSLEY SHELVADOR-Crosley
- Div Avco Mfg Corp CROWNPLY-Georgia-Pacific Plywood Co
- CRYSTAL-Barrett Div Allied Chemical & Dye Corp
- **CRYSTALEX**—Pittsburgh Plate Glass Co
- CUPRINOL-Cuprinol Div Darworth Inc.
- CUSHIONTONE-Armstrong Cork Co
  - D

DACO-DOOR-Atlas Plywood Corp DALTON—Daiton Mfg Co DAMP-VENT—Damp Vent Co DANCO—Daniels (C R) Inc DANDUX-Daniels (C R) Inc DA-NITE ACRATHERM-Minneapolis-Honeywell Regulator Co DEARBORN-Dearborn Mirs Corp DECOBLEND-Flintkete Co DECORALT-Flintkote Co DECORATIVE MICARTA\_II S PIVwood Corp DEEPSEAT—Bennett-Ireland Co DEFENDER-Keystone Steel & Wire Co DEFLECTROL-Barber-Colman Co DEION-Westinghouse Electric Corp DELCO-HEAT - Delco Appliance Div GMC DELTA-Rockwell Mfg Co Power Tool Div DELTA MULTIPLEX-Rockwell Mfg Ce Delta Power Tool Div DELUX—Insulite Div Minnesota & Ontario Paper Co DELUXE—American Cabinet Hardware Corp **DENCO**—Deniston Co **DENSITE**—Certain-teed Products Core DEXTER-Dexter Lock Co DEXTER-National Brass Co DEXTER-TUBULAR-National Brass Co DEWALT-DeWalt Inc DEWALT-MONARCH-DeWalt Inc

- DEWALT POWER SHOP-DeWalt inc

CONVERTIBLE-Berger Mfg Div DIAMOND-American Steel & Wire Co DIAMOND-Barrett Div Allied

Chemical & Dye Corp DIAMOND—U S Gypsum Ce

DIAPER HAMPER-Lawson (F H) C.

DIFFUSEX-Libbey-Owens-Ford

- Glass Co DILLON—Stanley Works **DISPOSALL**—General Electric Ce
- DODGE JOB-RATED-Dodge Div
- Chrysler Corp DOGWOOD-R G Coffman Co Inc
- DOLPHIN-Fiat Metal Mfg Co DOME TOP-Lawson (F H) Co
- DOOZIT-Bruce (E L) Go DORFAST-American Cabinet
- Hardware Corn DOR-WAY-Richards-Wilcox Mfg
- DOUBLE CROWN-Georgia-Pacific Plywood Co
- DRAFTITE-Keasbey & Mattison
- Co **DRAGON**-Richards-Wilcox Mfr
- Ce DRAWTITE-Allith-Prouty Inc DRIVE-IT-Powder Power Tool
- Corp DRYE-Weather Seal Co
- DRY KILN-Garey (Philip) Mfg
- Co
- **DUA-LAPS** American Stained Shingle Co
- DUBBLSEAL—Masonite Corp DUBL-BUTT—U S Gypsum C
- DUBL-COVERAGE-Ruberoid Co
- DUBLECOTE-Barrett Div Allied **Chemical & Dye Corp**
- DUBL-THIK-Upson Co
- DUL-KOTE-Tennessee Coal Iron & Railroad Co
- DUO-FAST—Fastener Cerp DUOLITE—Pittsburgh Plate Glass
- Ca DUO-PANE-Pittsburgh Plate
- Glass Co DUPLATE—Pittsburgh Plate Glass
- Co
- DUPLEX-Richkraft Co
- DUPLEX-US Gypsum Co DUPLEX-Upson Co
- DURA-Flintkete Co
- DURABOND-Penn Metal Co DURAGLAY-Grane Company
- DURA-COTTA-Johns-Manville
- Cert **DURALIN—National Brass Co**
- DURALL-New York Wire Cleth
- Co DUBA-LOK-Barrett Div Alliad
- Chemical & Dye Corp DURAPLASTIC—Universal Atlas
- **Cement** Co
- **DURA-SEAL**-Zegers Inc
- **DURA-SHIELD**-Flintkote Co DURATONE-Elkay Mfg Co
- Products DURITE-Certain-tood

- Corp DURO—Fiat Metal Mfg Co DUROLITE—Insulite Div Minnesota & Ontario Paper Co -U S Gypsum Co DURON-
- DUSO-Ohio Hydrate & Supply Co DYNA-FLASH - Milwaukee Elec FACTROLITE-Mississippi Glass
- Tool Corp

### E.

- EAGLE-Samson Cordage Works EASON-Ruberoid Co EBONOL—Sherwin-Williams Co ECLIPSE—Red Devil Tools ECONO-U S Gypsum Co
  - List of Manufacturers' Names With Addresses Starts on Page D-61

ECONOMY-Bird & Son Inc ECONOMY-Keystone Steel FIBEROCK-Carey (Philip) Wire Co FIBRE COATING-Carey (Philip) ECONO-SLIDE-Grant Pulley 2 Hawe Co Mfg Co FIRREX\_Flintkote Co FIBRONITE-Norge Cottages Inc EDHAM-Weyerhaeuser Sales Co ELASTIC-Carey (Philip) Mfg Co FIFTY-FIFTY-Du Pont (E I) de ELASTIGUM-Barrett Div Allied Chemical & Dye Corp ELDORADO-U S Gypsum Co ELECTRIC JANITOR-Minneapolis-50-50 PUSH-OVER-Allith-Prouty

FIBERLITE-Insulite Div Minne-

FIRE-CHEX-Carey (Philip) Mfg

FIRECRETE-Johns-Manville Corp FIRE-GUARD-Carey (Philip) Mfg

FIREITE-Johns-Manville Corp FIRESTOP BESTWALL—Certain-teed Products Corp FISSURETONE—Celotex Corp

FITS-ALL-Macklanburg-Duncan

#505 RED LEAD-King (E & F)

FIXMASTER-Cummins Portable

Tools Div Cummins-Chicago

FLASHING-Carey (Philip) Mfg

FLAT-RITE-Sherwin-Williams Co

FLAT TRANSITE-Johns-Manville

FLAXOAP-Sherwin-Williams Co

FLEETLITE—Fleet of America Inc FLEXALUM—Hunter Douglas Corp

FLEXARC-Westinghouse Electric

FLEXI-Berger Mfg Div Repub-

FLEXIBLAC—Cabot (Samuel) Inc FLEXIFLOR—R C A Rubber Co FLEXI-GRIP—American Cabinet

FLEXIGUM-Barrett Div Allied

Glass Co FLEXTOP—Carey (Philip) Mfg Co FLINTBOARD—Flintkote Co

Chemical & Dye Corp FLEXMETL—U S Plywood Corp

FLEXSCREEN-Bennett-Ireland

FLEXSEAL-Pittsburgh Plate

FLINTLOCK-Flintkote Co

FLOATING-Stanley Works

FLOORSET-Flintkote Co

FLO-LAC—Sherwin-Williams Co FLOORMIX—Flintkote Co

FLOREX-Libbey-Owens-Ford

Glass Co FLORHIDE—Pittsburgh Plate

FLO-WARM-Williamson Heater

FLO-WAX-Sherwin-Williams Co

FLUTEX-Libbey-Owens-Ford

FOLD-A-STAIR-Graig Wood-

FLUSHWALL-Flush Wall Radio

Glass Co FOAMGLAS—Pittsburgh Corning

Products Co FOLD-A-WAY—Patent Scatfolding

FOLD-R-WAY-Richards-Wilcox

FORD TRACTOR-Dearborn Mo-

FORMDUX-Airtemp Div Chrysler

AMERICAN BUILDER

FLOOR SEAL-Sherwin-Williams

Cabinat

Corp FLEXBOARD-Johns-Manvilla

Corp FLEXCELL—Celetex Corp

lic Steel Corp

Hardware Corp

Inc

Co

Co

Co

Corp

Co Inc The

tors Corp

Mfg Co

Corp

**Glass** Co

FLAT-TONE-Sherwin-Williams

FLASHTITE-Ruberoid Co

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sota & Ontario Paper Co

Nemours & Co Inc

Co

Co

Ce

Ca

Co.

Corn

Corp

Ca

& Co Inc

ECON-O-MATIC-Stanley Works

- Honeywell Regulator Co ELECTRO—Republic Steel Corp. ELECTROMODE—Electromode
- Corp ELECTRUNITE-Republic Steel Corn
- ELJER-Elier Co
- ELLWOOD-American Steel & Wire Co
- EMERSON JR-Emerson Electric Mtg Co
- EMPIRE-Empire Stove Co ENAMELCLAD-Carey (Philip)
- Mfg Co ENAMELOID-Sherwin-Williams
- Co
- ENDURO-Republic Steel Corn
- ENDORO-Republic Steel Corp ENSIGN-Fiat Metal Mfg Co ETCH WALL-Atlas Plywood Corp
- ETCH WOOD-Atlas Plywood
- ETERNIT-Ruberoid Co
- ETERNIUM-Barrett Div Allied
- Chemical & Dye Corp ETLING WINDOW THE-Etling
- Window ETLING UTILITY-Etling Window EUREKA-New York Wire Cloth
- Co
- EVANS-Evans & Co

Stanley Works EVERLOX—Barrett

Supply Co

Mfg Co

**Chemical & Dye Cerp** 

- EVERBOND X—Bruce (E L) Co EVERFAST—Barrett Div Allied
- Chemical & Dye Corp EVERGLAZE—Mosaic Tile Co
- EVERJET-Barrett Div Allied
- EVERJET—Barrott Div Allied Chemical & Dye Corp EVERLASTIC—Barrott Div Allied Chemical & Dye Corp EVERLASTING—Stanley Tools Div

EVER-READY-Ohio Hydrate &

EVERSQUARE-Symons Clamp &

EX-L-ITE-Republic Steel Corp

EXTRUDALITE-Libbey-Owens

EXTRATITE-Flintkote Co

E-Z-Standard Steel Works

EZ-WAY-EZ-Way Sales Inc

E-Z-FLEX-American Cabinet

F

FAB-RIK-O-NA-Wiggins (H B)

FAGEOL-Fageol Heat Machine Co

FASCO-Fasco Industries Inc FEATHER-TOUCH-Elier Co

FELTEX-Carey (Philip) Co

**FENESTRA**—Fenestra Building

FERROBORD—Truscon Steel Co FERROGLAD—Truscon Steel Co

**Ford Glass Co** 

E Z-Frantz Mfg Co

Hardware Corp

Sons Co

Products

Co

**EXPANSLIP**—Bennett Ireland Co

Div

Allied

- FORMFREE-Mosaic Tile Co FORMICA-The Formica Co FORMICA REAUTY BOARD-
- Formica Co FORMICA CONTACT BOND
- Formica Co FORMICA STRATA-WOOD
- Formica Co FORMICA VANITORY-Formica
- Ce FORTIFIED-U S Gypsum Co
- 4500—Sargent & Co 4-POINT—Barrett Div Allied Chem-

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- ical & Dye Corp 4-SQUARE-Weverhaeuser Sales
- FREEFLOTE-U S Gypsum Co FRENCH LOCK-Certain-teed
- Products Corp FRESH-AIRE—Bennett-Ireland Inc FUNGISIDE—Pittsburgh Plate
- **Glass** Co FURLATH-Inland Steel Products
- C. FURNACESTAT-Minneapolis-
- Honeywell Regulator Co
- F & W-Flint & Walling Mfg Co Inc
- **FYRO-GRILL**—Price Fireplace Heater & Tank Corp FYRO-PLACE—Price Fireplace
- Heater & Tank Corp

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- GALVANNEALED-Keystone Steel & Wire Co GALVITE-Sherwin-Williams Co
- GARDBOARD—Flintkote Co GARDENEER—Inland Steel Prod-
- ucts Co GASAVER-Williamson Heater Co
- (The)
- GEMCO-Moore (Goodlee E) Ce GIANT-Barrett Div Allied Chem-
- ical & Dye Corp GIANT—Bird & Son Inc GIANT STRIP—Johns-Manville
- Corp GIANT WEIGHT—Barrett Div Al-lied Chemical & Dye Corp GIBRALTAR—Pittsburgh Plate Glass Co
- GILSONOID-Flintkote Co GIMCO ROLLBAT-National Gyp-
- sum Co GIMCO SEALAL-National Gypsum
- Co
- GLASSURFACED-Kirlin Co GLASTONE-Libbey-Owens-Ford
- Glass Co
- GLATEX-US Gypsum Co
- GLAZECOAT-Johns-Manville
- Corp GLAZ-KALK—Sherwin-Williams Ce
- GLIDDEN-American Steel & Wire Co
- GLIDE--Frantz Mfg Co
- GLIDE-ALL-Woodall Industries Inc
- GLI-DOR-Carr Adams & Collier Co
- GLOGAS-Superior Fireplace Co
- GLOMASTER—Pryne & Co Inc GLORY—Inland Steel Products Co
- GOLD BOND—National Gypsum Co GOLD BOND-GIMCO—National
- Gypsum Co GOLD MEDAL—Patent Scatfolding
- Co Inc (The)
- GOLD STRAND-Wickwire Spencer Steel Corp
- GOLD STRIPE-Pittsburgh Plate Glass Co
- G-P PLYSHEET-Georgia-Pacific Plywood & Lumber Co P X-Georgia-Pacific Plywood
- G P & Lumber Co
- APRIL 1953

- GRADUATED SEAL-Raynor Mfg HEX-CEL-American Steel & Wire GRAD-U-FLOW-Minneapolis-Hon-
- eywell Regulator Co GRADUTROL-Minneapolis-Hon-eywell Regulator Co
- ND PRIZE-U S Gypsum Co GRANITEX-Mosaic Tile Co
- GRAPH-A-MATIC-Remington Rand Inc.
- GRAYLITE-Insulite Div Minne-
- sota & Ontario Paper Co GREEN SEAL—U S Gypsum Co GREEN TIP—Keystone Steel &
- Wire Co
- **GREYSTONE**\_American Asphalt
- Roof Corp GRILLADIER-Bennott-Ireland Inc
- GRILLCRAFT-Grillcraft Co
- GRILLCRAFT TRAVELER-Grill. craft Co
- GRIP-TOW-Yale & Towne Mfg Co Philadelphia Div
- **GUARD**—Certain-teed Products Corn
- GUARDIAN-Flintkote Co
- GUARDWELL-Gonco Steel & Engineering Co GUILD—Porter Cable Machine Co
- GULFSTEEL—Republic Steel Corp GULF STREAM—Aldrich Co
- GUM-A-TUB-Protectub Inc
- GYLAP-U S Gypsum Co
  - **GYPSTEEL**—Certain-teed Products Corp

    - н
  - HAGER-Hager (C) & Sons Hinge Mfg Go HAKO—Hachmeister Inc
- HALL-MACK-Hall-Mack Co
- HANDI-CRANE-Construction Ma-
- Corp HURWOOD-Stanley Works chinery Cos HAN-HE-DOR-Lawson (F H) Co HYDRALT—Flintkote Co HYDROCAL—U S Gypsum Co HYDRO-FLO—Bell & Gossett Co HYDRONON—Barrett Div Allied HARBORD-Harbor Plywood Corp
- HARBORITE-Harbor Plywood Corn Chemical & Dye Corp HYDROSTONE—U S Gypsum Co
- HARCURVE-Harbor Plywood
- Corp HARMONITONE-Mosaic Tile Co HARMOULD-Harbor Plywood
- Core HASKO-Haskelite Mfr Co
- HASKO ARCH-KOR-Haskelite Mfg Corn HAWK SPREAD-Ohio Hydrate &
- Supply Co HAWTHORNE—Keystone Steel &
- Wire Co HEALTHHEAT-Norge Heat Div
- Borg-Warner Corp HEAT-A LITE-Nu-Tone Inc
- HEATEX-Marsh Wall Preducts
- Inc HEATFORM-Superior Fireplace
- Co HEAT-PAK-Aldrich Co Div Breeze Corp Inc
- HEETAIRE-Markel Electric Products Inc
- HELLITE-Johns-Manville Corp
- HERCULES-Richards Wilcox Mfg Co
- HERCULES—Sargent & Co HERCULES—Stanley Tools
- HERCULITE-Pittsburgh Plate
- Glass Co
- HERMAN NELSON PORTABLE
- HERRINGENESSON POINTAGE HERRINGENCE—Truscon Steel Co HETTINGER'S TRIPLE SEAL— Weatherproof Products Corp HEVI-LIFT—Harnischfeger Corp
  - & Ontario Paper Co
    - List of Manufacturers' Names With Addresses Starts on Page D-61

Co HEXTRALINE—American Steel &

Wire Co HIDALIFT-Turner & Seymour

Mfg Co HI-DUMP—Jaeger Machine Co

HI-DUMP—Jaeger Machine Co HIGH BOY—Lawson (F H) Co HILITE—U S Gypsum Co HILO—Frantz Mfg Co

Co

Co

HILO\_Ohio Hydrate & Supply

HI-SPEED—Louisville Cement Co HI-STEEL—Inland Steel Products

HOEBY—Carlson & Sullivan Inc HOLGUN—Black & Decker Mfg Co HOLORIB—Fenestra Building

Products HOLT—Barrett Div Allied Chemi-

cal & Dye Corp HOME-UTILITY\_Black & Decker

Mfg Co HOMLIME—Louisville Cement Co

HOPES-Hope's Windows Inc HORIZONTAL GLIDING-Andersen

HOT BLAST-Carey (Philip) Mfg

HORIZONTALINE-Marsh Wall

HOUSEMART-Roddis Plywood

Corp HOW-ELL-DOR-Howell Mfg Co

ATORS-Howell Mfg Co

HOW-ELL-DOR ELECTRIC OPER-

HOWLE-Condensation Engineer-

ing Corp HUMID-AIRE—Meyer Furnace Co

HUMID-U-STAT-Minneapolis-

HUNT PROCESS-Garter-Waters

Honeywell Regulator Co

HYDROXIN-Kay-Tite Co

Railroad Co IMCO—Red Devil Tools

Co

Glass Co

Steel Co

Co

**Inland Steel Co** 

IDEAL-American Steel & Wire

IDEAL-Tennessee Coal Iron &

I-M FLUSH-United States Ply-

wood Corp IMMERSATHERM-Mercoid Corp

IMPERIAL-U S Gypsum Co IN-A-SLIDE-New Menarch Ma-

chine & Stamping Co INCOR—Lone Star Cement Corp INDUSTREX—Libbey-Owens-Ford

INLAND COPPER-ALLOY-Inland

INLAND 4-WAY SAFETY PLATE-

INLAND HI-BOND-Inland Steel

INLAND TI-CO-Inland Steel Co

INN-A-WALL-Norman Products

Go INSELSTONE—Jones & Brown Inc INSELSTONE—Jones & Brown Inc INSELSYDE—Jones & Brown Inc INSELWOOD—Jones & Brown Inc IN-SINK-ERATOR—In Sink Erator

Mfg Co INS-LITE—Insulite Div Minnesota

**Products Inc** 

HI-UP-Worthington Corp

INSULITE-Insulite Div Minnesota

A Ontario Paper Co INSULMAT—Mortell (J W) Co INSULMESH—Truscon Steel Co INTEGRALOCKS—Sargent & Co INTEGRALOCKS—Sargent & Co

IVOROID-Pittsburgh Plate Glass

.

JACK FROST-Barrett Div Allied

JIFFY—Angel Novelty Co JIFFY—Grand Haven Stamped

JIFFY GORNERS-Perma Prad-

JUNIOR BATS—U S Gypsum Co JUNIOR BEAMS—Jones & Laugh-

ĸ

KAL—U S Gypsum Co KALITE—Certain-teed Products

KARDEX-Remington Rand Inc

KAYLO-Owens-Illinois Glass Co

KEM-GLO-Sherwin-Williams Co KEMI-KAL-Sherwin-Williams Co

KEM-NAMEL-Sherwin-Williams

**KEM-TONE**—Sherwin-Williams Co

**KENMORE**—Certain-teed Products

KENTUBER—Kentile Inc KENTILE—Kentile Inc KENWODD—American Radiator & Standard Sanitary Corp KEYMESH—Keystone Steel &

Wire Co KEY'N KNOB—Lockwood Hard-ware Mfg Co KEYSTONE—Crane Company KEYSTONE—Keystone Steel &

KICKAPOO-Keystone Steel &

KITCHEN HOSTESS-Bianco Mfg

KITCHENAIDER-Mullins Mfg

**KITCHEN MAID-Kitchen Maid** 

**KITCHEN PROVED-Westing-**

house Electric Corp KITCH'N HANDY-Washington

KLENGON-Cabot (Samuel) Inc

K & M—Keasbey & Mattison Co KNICKERBOCKER—Flintkote Co

KNOBURN-U S Gypsum Co KOHLER OF KOHLER-Kohler Co

KOLOR PINS-Independent Nail &

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KOLECT-A-MATIC-Remington

**Steel Products Inc** 

Rand Inc.

Packing Co

Corp KALKOMO—Pittsburgh Plate

KAYSTO-Alumatic Corp of

K-CEMO-U S Gypsum Co

KENCORK—Kentile Inc KENFLEX—Kentile Inc

**KENRUBBER**—Kentile Inc

Wire Co K-FAC—U S Gypsum Co

Wire Co KIRLIN-The Kirlin Co

JUNIOR CHANNELS-Jones &

IVORY-U S Gypsum Co

Chemical & Dye Corp JETBLAK—Ruberoid Co

ucts Co (The) JK—Knights (James) Ce J-M—Johns-Manville Corp JMJ—JMJ Industries Inc

JUMBO-U S Gypsum Co

Products Co

lin Steel Corn

KAL

Glass Co

Kaylo Div

America

Cere

Co

Corr

Laughlin Steel Corp JU-OIL—Aldrich Co

Glass Co

KOLOR-TRIM-Wood Conversion

**KONICAL**—Inland Steel Products Co KOPRO-C-P-15-Carey (Philip)

Mfg Co KORD-Sterling Paint & Varnish

Ca KORDUCT-Johns-Manville Corp

KORINA-U S Plywood Corp **KROMIK**—Sherwin-Williams Co KUVER-KRAK-Upsen Co

LACTILE-Carey (Philip) Mfg Co LAMIDALL-Woodall Industries Inc

LAMINO-Keasbey & Mattison Co

LASTILE—Carey (Philip) Mfg Co LAUNDRETTE—Grane Go

LAUX-Monsanto Chemical Co LAUX FUNGISEAL-Monsanto

**Chemical Co** 

LAUX-GLUE-Monsanto Chemical

- LAUXITE-Monsanto Chemical Co LAUXTEX-Monsanto Chemical Co LAUXTINT-Monsanto Chemical
- Co LAVANET-Toledo Desk & Fixture
- Co LAYTITE-Connor Lumber & Land
- Co
- L-BLOW-Trade-Wind Motorfans Inc
- LEADER-Lufkin Rule Co
- LEAD-SEAL-Deniston Co
- LEATHERWOOD-Masonite Corp LECO-FLEX LATCH-Laboratory
- Equipment Corp
- LECO LATCH-Laboratory Equipment Corp
- LEE-Grant Pulley & Hdwe Co
- LEIGH-Air Control Products Inc **LEPTYNE**—Pittsburgh Plate Glass
- **LESLIE LOUVERS-Leslie Weld-**
- ing Co LEVELALL-Levelall
- LEVELINE-Galder Mfg Co
- LIBERTY-New York Wire Cloth Ca
- LIFE-LINE-Westinghouse Electric Corn
- LIFETIME-Bennett-Ireland Inc

LIFETIME-Reynolds Metals Co

- LIGHTNING-Pittsburgh Plate Glass Co
- LIGHTNING JOINT-Johns-Manville Corp
- LIGHT-SAVER-Fawsco Mfg Div Falls Stamping & Welding Co LIMELITE—Ohio Hydrate & Sup-
- ply Co LIMPET—Keasbey & Mattison Co
- LINABESTOS-Keasbey & Mattison Co
- LINEAWAY-Fawsce Mfg Div Falls Stamping & Welding Co
- LINE-O-FLO-Barber-Colman Co LINOTILE-Armstrong Cork Co
- LIN-X-Sherwin-Williams Co
- LIQUID RAW-HIDE-Linseed Oil Prod Co
- LITH-I-BAR-Lith-I-Bar Co
- LITH-I-BLOCK-Lith-I-Bar Co LITTLE AMERICAN-American
- Floor Surfacing Machine Co
- LOAD KING-Yale & Towne Mfr
- LOCK-JOINT-Inland Steel Products Co LOCKWOOD-Leckwood Hard-
- ware Mfg Co L-O-F-Libbey-Owens-Ford Glass
- Co

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LOK'D BAR—Hope's Windows Inc MAXDRIL—Cummins Portable LOK-JOINT—Insulite Div Min- Teols Div Cummins-Chicago neseta & Ontario Paper Co

LOK-TITE-Garr Adams & Collier Co LOMAINTENANCE-Allis-Chalmers

- Mfg Ce LOTT—American Steel & Wire Co LOUVREX—Libbey-Owens-Ford **MEDCO**—Medusa Portland Cement
- MENGELBORD-Mengel Co Glass Co. LOW-CHARGE-Jaeger Machine MESHTEX—Penn Metal Co METALASTIC—Sherwin-Williams
- Co LOWDENSITE-Insulite Div Minnesota & Ontario Paper Co
- LOX-RIGHT-St. Paul Corrugating Co
- LUCKE LEAK PROOF-Lucke (Wm B) Ce
- LUMINEX-Libbey-Owens-Ford
- **Glass** Co LUMITE--Lumite Div Chicopee Mills Inc
- LUMNITE-Universal Atlas Coment Co
- LUSTERLITE-Insulite Div Minnesota & Ontario Paper Co
- LUSTERTILE—Celotex Corp LUSTERTONE—Elkay Mfg Co LUX-RIGHT—St Paul Corrugating

MADUCO-Macklanburg-Duncan

MAGIC CIRCLE-Hotpoint Inc

MAGIC-DOOR-Stanley Works

**MAGNALITE**—Mississippi Glass

MAGNE-FILTER-American Radia-

tor & Standard Sanitary Corp MAHONING—U S Gypsum Co

MALTA UNIVERSAL-Malta Mfg

MARLITE-Marsh Wall Products

MARLITE DELUXE-Marsh Wall

MARLITE MARBEL PATTERNS-

MARLITE VELVETEX-Marsh Wall

MARLITE WOOD PATTERNS-Marsh Wall Products Inc

MAR-NOT-Sherwin-Williams Co

Masonite Corp MASTER—Amorican Cabinet Hard-

MASTER-BILT-Bird & Son Inc

MASTER-CAULK-Calbar Paint &

MASTER FRAME-Andersen Corp

MASTERIB-Penn Metal Co Inc

MASTER-LOCK-Bird & Son Inc

MASTER PAVE-Bird & Son Inc

MASTER-PROFESSIONAL-Holt

MASTER SECURITY-Kewanee

MASTITE-Ohio Hydrate & Sup-

MATICO-Mastic Tile Corp of

MAXAW—Cummins Portable Tools

**Div Cummins Chicago Corp** 

MASONITE PRESDWOOD-

Marsh Wall Products Inc

MANHATTAN-Pittsburgh Plate

MAGIC-AIRE-Huntington Indus-

Ce

Co

Co

Co

Inc

Glass Co

**Products Inc** 

**Products Inc** 

ware Corp

Varnish Co

Mfg Co

Mfg Co

ply Co

America

tries Inc

- MICA-KOTE-Carey (Philip) Mfg LYMAN-American Steel & Wire **MICARTA**-Westinghouse Electric
  - Corp MICROTHERM-Barber-Colman Co
- MICROTROL-Barber-Colman Co MIDGET KING-Yale & Towne MACOUSTIC-National Gypsum Co

**Teels Div Cummins-Chicage** 

MAYFAIR-American Radiator &

Standard Sanitary Corp

MAZEX-Libbey-Owens-Ford

**METALEAF**—Pittsburgh Plate

tries Inc METALITE—Thorn (J S) Go

METAPHRAM-Minneapolis-

Honeywell Regulator Co

MEZURALL-Lufkin Rule Co

METAL-FOLD-Huntington Indus-

-Meyer Furnace Co

M-H-Minneapolis-Honeywell Reg-

MIAMI-Industrial Machine Tool

Co Inc Window Div MIAMI-CAREY—Carey (Philip)

Cert

Co

Co

MEYCO

Glass Co

**Glass** Co

ulator Co

Mfg Co

- Mfg Co MIGHTY MIDGET UNISHEAR-
- **Stanley Works** MILCOR-Inland Steel Products
- Co MIL-FLOOR-Celotex Corp
- MILO-Mengel Co MILWAUKEE-Milwaukee Electric **Tool Corp**
- MIMAX-Pittsburgh Plate Glass Co
- **MINARET TIP-American Cabinet Hardware** Corp
- MINERAL WOOL BOARD-Armstrong Cork Co MINI-MESH—Penn Metal Co Inc

- MIRACLE WALLS—Tylac Co MIRROPANE—Libbey-Owens-Ford Glass Ce
- MISCO-Mississippi Glass Co MOBILAIRE-Westinghouse Elec-
- tric Corp
- MODERN CLASSIC-Coffman (R G) Co Inc
- **MODERNFOLD**-New Castle Products Co
- **MODERN HOMES**—Modern Homes Corp
- MODUFLOW-Minneapolis-Honeywell Regulator Co
- MODUTROL-Minneapolis-Honeywell Regulator Co
- MOHAWK-American Radiator & Standard Sanitary Corp
- MONARCH-Keystone Steel Wire Co
- -New Monarch MONARCHchine & Stamping Co
- MONITOR-American Steel & Wire Co
- **MONOCORD**—Weyerhaeuser Sales Co
- MONOFLO-Bell & Gossett Co MONOWALL—Armstrong Cork Co MOONGLO—Formica Co
- MORE-DRAIN-Berger Mfg Co Div **Republic Steel Corp**
- MOR-SUN-Morrison Steel Products Co
- List of Manufacturers' Names With Addresses Starts on Page D-61

MORTASEAL-U S Gypsum Co MORTEX—Mortell (J W) Co MORTITE—Mortell (J W) Co MOSAIC—Mosaic Tile Co MOTIF'D—U S Gypsum Co MOTORELAY-Barber-Golman Co MOTO-SANDER-Dremel Mfg Co MOTO-SAW-Dremei Mfg Co MOTO-TOOL-Dremei Mfg Co MOULFLEX—Moultile Inc MOULTILE—Moultile Inc MUFFLETONE—Celotex Corp MULLINAIDER—Mullins Mfg Corp MULLICHROME—Stanley Works MULTIGRIP-United States Steel Co

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- MULTI-MATIG-Remington-Rand Inc
- MULTIPLATE-Pittsburgh Plate **Glass** Co
- MULTI-PURPOSE-Flint & Walling Mfg Co Inc MULTI-SHINGLES—Barrett
- Div Allied Chemical & Dye Corp
- MULTI-STRAND-New York Wire Cloth Co MULTIVANE-Westinghouse Elec-
- tric Corp Sturtevant Div MURALAC
- MURALAC—Tylac Co MURALEX—Libbey-Owens-Ford Glass Co MURAL-TONE-Murale Co Inc

MURATILE—Mosaic Tile Co MW-50—Carey (Philip) Mfg Co MW-40—Carey (Philip) Mfg Co

NARROLINE-Andersen Corp

Wire Co

ucts Co

Aluminum Co

& Wire Co

Ce

Co

**Products Co** 

Inc

NATIONAL-American Steel &

NATIONAL SYSTEM-National

System of Garage Ventilation

NATROCO-National Mfg Corp

**NETMESH**—Inland Steel Products

**NEVAMAR**—National Plastic Pred-

NEVERSTAIN-Nichols Wire &

NEW MONARCH IN-A-SLIDE-New Monarch Machine

NILES—Bostwick Steel Lath Co

NOAHS PITCH-Carey (Philip)

Mfg Co NO-DRIP—Mortell (J W) Co

NITEAIR—Lau Blower Co NIXALITE—Nixalite Co of America

NOKORODE-Chase Brass & Cop-

per Co Inc NON-CLIMBABLE—Keystone Steel

NON-SYPHONING-Inland Steel

NO 20—Carey (Philip) Mfg Ce NO 25—Carey (Philip) Mfg Co NORGE HEAT—Norge Heat Div

Borg Warner Corp NORTHWOOD-Insulite Div Min-

nesota & Ontario Paper Co NOVOPLY—United States Ply-

wood Corp NOX-EM-ALL\_Barrett Div Allied

NU-ALPINA-Inland Steel Prod-

ucts Co NU-ART—Mackianburg-Duncan Co

NUCITE-Pittsburgh Plate Glass

AMERICAN BUILDER

NU-CALK-Macklanburg-Duncan

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**Chemical & Dye Corp** 

Machine

NEWMARBLE-Ruberoid Co

Stamping Co NI-CLAD—Lufkin Rule Co

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NAVAJO-American Radiator

Standard Sanitary Corp NEPONSET-Bird & Son Inc NEPTUNE-Fiat Metal Mfg Co NU-FRAME-Rudiger-Lang Co NU-GARD-Macklanburg-Duncan Co

NU-GLAZE-Macklanburg-Duncan

Co NU-KOIL-Macklanburg-Duncan

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Ce NU-LUME-Macklanburg-Duncan

NU-METAL-Macklanburg-Duncan

Co NU-PHALT-Macklanburg-Duncan Co

NUROID-Flintkote Co

NU-STATIC—Flintkote Co NU-STYLE—Carr Adams & Collier

Co

NU-WALL-Nu-Wall Mfg Co NU-WAY-Macklanburg-Duncan

Co NU-WOOD-Wood Conversion Co

0

OHIO-Ohio Hydrate & Supply Co OHIO AUTOCLAVED-Ohio Hy-

drate & Supply Ce OHIO MASONS—Ohio Hydrate & Supply Co

OHIO RITEWALL-Ohio Hydrate

& Supply Co OHIO SANLIME-Ohio Hydrate & Supply Co

OHIO WHITE AUTOCLAVED-Ohio

Hydrate & Supply Co LD AMERICAN—Americ OLD -American As-

phait Roof Co OLIVER—Oliver Corp

ONE-DER FRAMES-One-Der

Frame Corp 100 PLUS—Stanley Works ON-GUARD—Macklanburg-Duncan Co

OPAL -New York Wire Cloth Co **OPEN-TRUSS**-Truscon Steel Co OPTIONAL KOLOR PLAN-Gre-

Dipt Co Inc ORANGE-Virginia Metal Prod-

ucts Corp

ORIENTAL-U S Gypsum Co ORNALITE-Haskelite Mfg Corp

"O-T"-Truscon Steel Co OVERDOOR-Truscon Steel Co

OVERHEAD DOOR-Overhead

Door Corp **OVERMATIC**—Curtis Companies

Inc OVER-THE-TOP-Frantz Mfg Co

OVER-WAY-Richards Wilcox Mfg Co

P

**PACEMAKERS**—Harnischfeger Cori

PACKAGED WEATHER-General Electric Co

-U S Gypsum Co PAC-TEX PAINTBOND-United States Steel

Co PAINTLOK-Republic Steel Corp PAINTOVR-American Cabinet

Hardware Corp

PALCO-Pacific Lumber Co

PANAMOID—Barrett Diy Allied Chemical & Dye Gorp PANELBESTOS—Ruberoid Co

PANELWOOD-Masonite Corp

PARAB-O-LUME-Berger Div Republic Steel Corp

PARAGON-Barrett Div Allied

Chemical & Dye Corp

- PARKAY-Parkay Inc PAROID-Bird & Son Inc
- PARQUETRY-Mastic Tile Corp of America
- PARQ WALL-Atlas Plywood Corp PATROL-Certain-teed Products Corp

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PC—Pittsburgh Corning Corp PEBBLEX—Libboy-Owens-Ford

Glass Co PECOMASTIC-Pecora Paint Co **PEERLESS**—American Steel .

Wire Co PEERLESS-US Gypsum Ce PEG-BOARD-Butter B B Mfg Co

Inc

PEG BOARD-Masonite Corp

- PELLA-Roiscreen Co PENMETAL-Penn Metal Co Inc PENNVERNON-Pittsburgh Plate
- Glass Co. PENTECOR—Mississippi Glass Co
- PENTRA-SEAL—American Floor Surfacing Machine Co
- PERCOPROOF-Carey (Philin)
- Mfg Co PERF-A-TAPE-U S Gypsum Co PERFATILE-US Gypsum Co PERFATONE-US Gypsum Co
- PERFECTION-American Steel & Wire Co
- PERFECTION-Inland Steel Products Co. PER-FIT-Per-Fit Products Corp
- PERFOLATH-Certain-teed Prod-
- ucts Corp PERFORALL\_ -Woodall Industries
- inc
- PERFORATED FELTEX-Carey (Philip) Mtg Co PERM-ALIGN-Cummins Portable
- Div-Cummins-Chicage Toels
- **PERMALITE**—Great Lakes Carbon
- Corp PERMASET—Flintkote Co PERMASON—Monsanto Chemical

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- PROTECTITE COVER-DRI-Flintkote Co PERMA-STAIN-Perma Products PROTECTO-Superior Fireplace Co
- Co (The) PERMATITE-General Bronze
- Corp PERMATONE WHITE-Johns-Man-
- ville Corp PERMO—Fiat Metal Mfg Co
- PESTROY-Sherwin-Williams Co
- PETAL TONE-Mastic Tile Corp of America
- P&H-Harnischfeger Corp
- PHOENIX-Russell (F C) Co PHOENIX-Samson Cordage
- Works
- PICK-UP CART-Inland Steel Prod-
- ucts Co PILOT—Fasco Industries Inc PILOT—Johns-Manville Corp
- PIONEER-Flintkote Co
- PITTCAULK-Pittsburgh Plate **Glass** Co
- PITTCHLOR-Pittsburgh Plate
- **Glass** Co PITTCIDE-Pittsburgh Plate
- **Glass** Co
- PYROBAR—U S Gypsum Co PYROFILL—U S Gypsum Co PYROMENT—Keasbey & Mattison PITTCO-Pittsburgh Plate Glass
- PITTSBURGH INTER-LOCK-Jones
- & Brown Inc PIVOT-LIFT—Frantz Mfg Co
- P&K—Harnischfeger Corp PLANET—Johns-Manville Corp
- PLANTATION-Lawson (F H) Co
- PLASCO UTILITY-Pittsburgh **Plate Glass Co**
- PLASTIC ELASTIGUM-Barrett
- **Div Allied Chemical & Dye Corp PLASTICO**—Barrett Div Allied
- Chemical & Dye Corp
- PLASTICO-Warren-Knight Co PLASTIC PB-Barrett Div Allied Chemical & Dye Corp
- PLASTIMAX COLLOIDAL-U Gypsum Co
  - List of Manufacturers' Names With Addresses Starts on Page D-61

PLUG-IN-National Elec Products Corp

Corp

**Glass** Co

Mfg Co

Co

Ark

Co

Wire Co

Machine Co

**Electric Corp** 

POTTSCO-Celotex Corp

PRE-PAC-Flintkote Co

PLUGMOLD-Wiremold Co PLURALITE-Mississippi Glass Co

POLISH-OL-Sherwin-Williams Co PORCHIDE-Pittsburgh Plate

PORTER - CABLE-Porter - Cable

PORTO-SHEAR-Black & Decker

POWERAIRE-Westinghouse Elec-

PRECISION—Precision Parts Corp PRECISION-BUILT—Hemasote Co

PREMIER-American Steel & Wire

PREMIER-Bradley Lumber Co of

PRESDPLY—Masonite Corp PRESDWOOD—Masonite Corp PRESERVOL—Ruberoid Co

PRESTILE-Prestile Mfg Co

tex Corp PROSLATE—Bird & Son Inc

PRESPINE—Curtis Cos Inc PRESSURE-SEAL—Andersen Corp

PRIME-KOTE-Carey (Philip) Mfg

PROMENADE TRAFFIC TOP-Celo-

PROTECTOR-American Steel &

**PROTECTORELAY**-Minneapolis-

PROTEK-WOOD-U S Plywood

Corp PROTEXIT-Barrett Div Allied

Chemical & Dye Corp PROTOKOTE—U S Gypsum Co

PRY-LITE-Pryne & Co Inc PUL-LIFT-Yale & Towne Mfg Co

PULL-PUSH-Stanley Tools Div

PURITAN-U S Gypsum Co PUSHMATIC-Buildog Electric

PUSH-OVER-Allith-Prouty Inc PUSH-OVER—Alline-Fronty inc PUTTY MASTER—Fastener Corp PYRALUX—Du Pont (E I) de

Q

Supply Co (The) QUICK-WAY—Peterson Products

QUIKBRIK-American Cement

QUONSET-Great Lakes Steel

RADIA—Shepler Mfg Co RAMSET JOBMASTER—Ramset

**RAMSET TRU-SET-Bamset Fast-**

Hydrate

Stanley Works PUL-TITE—Stanley Works

**Products Co** 

Nemours Co

QUICK-MIX-Ohio

Co

Co

Products

Fasteners

eners

Corp

Honeywell Regiator Co PROTECTUB—Protectub Inc

tric Corp POWERSTAT—Mercoid Corp PRECIPITRON—Westinghouse

PLY-FOLD—Atias Piywood Corp PLYSHEET—Georgia-Pacific Piy-wood & Lumber Co P-MIR-DEK-Miracle Adhesive

RANCH PLANK—Bruce (E L) Go RANCH TYPE—Lawson (F H) Co RANDALITE—U S Plywood Corp RA-TOX—Hough Shade Corp RAYFLEX—Filmtkote Co REALOCK—Wickwire Spencer Steel Div Colorado Fuel & Iron

**BED BRAND-Keystene Steel &** 

Steel Co RED CIRCLE—Simonds Saw

**RED DEVIL-Pecera Paint Co REDEGE**—National Electric Prod-

REDIPREP-Upson Co

RED CENTER-Simonds Saw &

ucts Corp RED END—Lufkin Rule Co RED END—Simonds Saw & Steel

**RED STREAK-Simonds Saw &** 

RED TOP-Keystone Steel & Wire

**RED TANG-Simonds Saw** 

REDTOP-U S Gypsum Co REEDEX-Libboy-Owens Ford

REGLEX-Libbey-Owens-Ford

RELIABLE-Allith-Prouty Co

RE-NU-Flintkote Co REPUBLIC-Republic Steel Corp

RESINIZED-SPEED-GRITS-Behr-RESINIZED-ST Manning Corp RESOLITE—Resolite Corp RESOLITE—Celotex Corp

REX PAR-Sherwin-Williams Co

**REXVANE**—Westinghouse Electric

REYN-O-CELL-Reynolds Metals

**REZITEX**—Monsante Chemical Co

Chemical

Prod-

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REZ-Monsanto Chemical Co

REZC—Paine Lumber Co RHINO—Pecora Paint Co Inc RICHARDSON—Flintkote Co

RICHBEAD—Richkraft Co (The) RICHFLEX—Richkraft Co (The)

RICHGLAZE—Richkraft Co (The) RICHKRAFT—Richkraft Co (The)

RICHKURE—Richeraft Co (The) RILCO—Rilco Laminated Prod

**RILCORD**-Rilco Laminated Prod-

**RIPLEX**—Berger Mfg Div Republic

RITE-LOCK-Adams-Rite Mfg Co RITEWALL-Ohio Hydrate & Sup-

ply Co I W—Toch Brothers Inc I W LIQUID KONKERIT—Toch

RIW PLUG-A-LEAK-Toch Broth-

**ROCKET-Grant Pulley & Howe** 

**ROCKFORD**-National Lock Co

ROCKLATH-U S Gypsum Co

ROCKTEX-Carey (Philip) Co

**ROLL-AWAY-Frantz Mfg Co** 

ROLL-EEZ-Junier-Pro Products

ROLCO-Roiscreen Co

ROLITE-Roiscreen Co

ROCKTITE-Wesco Waterpaints

RODDISCRAFT-Roddis Plywood

ROCKOUSTILE-Johns-Manville

Wire Co

Steel Co

**Steel Co** 

Steel Co

Glass Co

Glass Co

REX-Flintkote Co

Corp

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Steel Corp

**Brothers Inc** 

ers inc

Co

Corp

Inc

Corp

Co

**REXTAB**-Flintkote Co

REZICOTE-Monsanto

Co

Co

- ROLLER COATER-Sherwin-Williams Co ROLL-N-FOLD-Majestic Co ROLL-D-HOIST-Construction Machinery Sales Co ROLL-POINT-American Cabinet Hardware Co ROLL-UP—Stanley Works ROL-R-WEDG—Richards Ca Wilcox 60 ROMFH—Ludman Corp ROOFINSUL—Johns-Manville Corp ROOF RENUR—American Asphalt Co Roof Co ROTO-Truscen Steel Co ROTO-CLONE-Herman Nelson ROTOVENT-Curtis Cos Inc ROW-ROW Sales Co R O W-R O W Sales Co ROYAL-American Steel & Wire 0.0 ROYAL-Chattanooga Implement & Mfg Co RUBBER LIKE-Bird & Son Inc RUBBER ROLLER-American Cabinet Hardware Corp RUBBERTEX\_Flintkote Co Ce RURFRINE\_Ruberoid Co. RUFTEX-Flintkote Co RUNWELL-Frantz Mfg Co RUSCO-Russell (F C) Co RUSSWIN-Russell & Erwin Mfg Div American Hardware Corp **RUTHLESS**—Keystone Steel & Wire Co s SABINITE-U S Gypsum Co SACHEM—Samson Gordage Works SAFEGUARD—Sterling Hardware Mfg Co SAFEKOTE—Ruberoid Co SAFE-N-DRY-Ruberoid Co SAFETY CIRCLE-Allis-Chalmers Mfg Co. SAGINAW-American Radiator & Standard Sanitary Corp SAG-NOTT-Harbor Plywood Corp ST PAUL-St Paul Corrugating Ca SALESMAKER—Bruce (E L) Co SANACOUSTIC—Johns-Manville Co Corp SANLIME-Ohio Hydrate & Supply Co SANTOBANE—Monsanto Chemical Co SANTOBRITE-Monsanto Chemical Co SARATOGA-American Radiator & Standard Sanitary Corp SATINCOTE—Insulite Div Minnesota & Ontario Paper Co SATINOL-Libbey-Owens-Ford Glass Co SATIN SPAR-Certain-teed Products Corp SATUROCK—Carter-Waters Corp SAVA-MAID-Grosley Div Avco Mfg Corp SAX\_Aldrich Co Co SCREW-TITE-Independent Nail &
- SCARLET OAK-Coffman (R G) Co Inc SCHUFLI-Pittsburgh Plate Glass
- Packing Co SCRUGUN—Black & Decker Mfg
- Co
- SCRU-TITE—Bennett-Ireland Inc SEALDHEX—Flintkote Co SEALDON—Certain-teed Products Corp
- SEALEDGE-Flintkote Co
- SEALED GRAYLITE LOK-JOINT-Insulite Div Minnesota & Ontario Paper Co
- SEALKOTE-Keasbey & Mattison Co

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SEASON-STAT-Mueller (L J) Furnace Co SEA SWIRL-Associated Plywood Mills Inc SELECTAIR--Johnson (S T) Co SELF-SENTERING-Truscon Steel SEL-VI-LAP-U S Gypsum Co SEMAPHORE-Barrett Div Allied Chemical & Dve Corn SEMI LUSTRE-Sherwin Williams SENECA-American Radiator & Standard Sanitary Corp Ce SENSATHERM-Mercoid Corp SENTRY-New York Wire Cloth Co SEVEN STAR IMPERIAL-U S Gypsum Co SEWERTITE-Garey (Philip) Mfg SHADOLINE-American Asphalt Roof Corp SHAD-O-LINE—Upson Co SHADOTONE—Flintkote Co Corp Co SHADOW-LINE-Wood Conversion SHADOW-LOCK-U S Gypsum Co SHAKERTOWN-Perma Products Co SHANK GAP\_Bennett-Ireland Inc SHAWNEE-American Radiator & Standard Sanitary Corp SHAWNEE—Flintkote Go SHEDWELL—Frantz Mfg Go SHEETFLEXTOS-Keasbey & Mattison Co SHEETROCK—U S Gypsum Co SHEETROCK—US Gypsum ( SHELF-X—US Gypsum Co SHELVADOR—Crosley Corp SHERARDUCT—National E Electric Products Cor SHINGLE-BACKER-Insulite Div Minn & Ontario Paper Co SHINGLECOAT-Barrett Div Allied Chemical & Dye Corp SHINGL-ROL—U S Gypsum Co SHINGLSTIK—American Asphalt Roof Corp SHIPLEY—York Shipley Inc SHURLOK—Flintkote Co SI-CLONE—Simonds Saw & Steel SIFO—U S Gypsum Co SILCON BRONZE—Chase Brass & Copper Co Inc SILENT-National Mfg Co SILENTAIRE-Berger Mfg Co Div **Republic Steel Corp** SILENTITE-Curtis Cos Inc SILENTVANE-Westinghouse Electric Corp Sturtevant Div SIL-0-ETTE—U S Gypsum Co Co SILVERSTONE—American Asphalt Roof Corp SISALATION—Sisalkraft Co SISALKRAFT—Sisalkraft Co S I S-Barrett Div Allied Chemical & Dye Corp SKIPPER—Fiat Metal Mfg Co SKUFPRUF—Richkraft Co SKX-Sisalkraft Co SKYLINE—Flintkote Co SKYTEX—Libbey-Owens-Ford Glass Co SLATEKOTE-Johns-Manville Corn SLIDE-A-FOLD-Graig Wood-**Products Co** SMALMESH-Inland Steel Prod-Hots Co SMOOTHCOTE-Insulite Div Min-

- neseta & Ontario Paper Co SMOOTHLITE-Insulite Div Minn & Ontario Paper Co
  - List of Manufacturers' Names With Addresses Starts on Page D-61

SMOOTHWALL-Johns-Manville Corn

- SNAPTITE-Berger Mfg Div Republic Steel Corp SNOLITE-Pittsburgh Plate Glass
- 0.0 SNOW DRIFT-U S Gypsum Co

SNUGFIT—Paine Co (The) SOLEX—Pittsburgh Plate Glass Co SONOAIRDUCT—Sonoco Products

- Co
- SONOTUBE-Sonoco Products Co SOUTHERNER-Norman Products
- SPACEMAKER-Steelcraft Mfg Co SPACEMASTER-New Castle Products Co.
- SPECIFICATION-Barrett Div Allied Chemical & Dye Corp
- SPEED-Louisville Cement Co SPEE-DEE—Dalton Mfg Co SPEED HOMELIME—Louisville
- Cement Co SPEEDLAY-Certain-teed Products
- SPEEDMATIC-Porter-Cable Machine Co
- SPINNER-American Floor Sur-
- facing Machine Co SPINNER\_Inland Steel Products Ca
- SPOT-Samson Cordage Works SPREAD EASY—Debs Decorators SPRING WING—Paine Co (The) SP SUPREME-Southern Pine Lbr
- Co SQUARE DEAL-Keystone Steel &
- Wire Co SQUARE DEAL-Upson Co SQUARE GUTTER-Inland Steel
- Products Co STA-DRI-American Sta-Dri Co
- STA-FAST—Texas Co STA-LITE—Wood Conversion Co
- STALWART—Flintkote Co STANDARD—American
- Cabinat Hardware Corn
- STANDARD\_Williamson Heater Co
- STANDARD DUOLUX-Masonite Core
- STANDARD PRESDWOOD-Masonite Corp STANLEY-CARTER-Stanley
- Works Stanley Electric Tools Div
- STANLOID—Stanley Works STAPLE-LOX—Flintkote Co
- STAR—Turner & Seymour Mfg Co STAR—U S Gypsum Co STARCRAFT—U S Gypsum Co
- STAREX-Ruberoid Co
- STA-SLATE—Ruberoid Co STA-STRAIT—Southern Pine Lbr
- STATIC-Flintkote Co
- STATITE—Angier Corp STAY-RIB—Inland Steel Products Co
- STEADFAST-Flintkote Co
- STEEL-FLITE BIN-VEYOR-Ke-wanee Mfg Ce
- STEELMESH—Penn Metal Co Inc STEEP-SLOPE—Bennett-Ireland
- Inc
- STERLEX-Libbey-Owens-Ford Glass Co
- STERLING-Sterling Hdwe Mfg Co
- STERLING-Warren-Knight Co STOK-A-TIMER-Merceid Corp
- STOKERELAY-Minneapolis-Honeywell Regulator Co
- STOKERMATIC-Rheem Mfg Co Stokermatic Div
- STONEFELT-Johns-Manville Corp

- STONESET-Medusa Portlano Camont Co.
- STONESHLATE\_Carey (Philin) Mfg Co
- STONEWALL-Ruberoid Co
- STOR-IN-DOOR-Grate Mfg Co Inc

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- STORMPROOF\_National Mfr Co.
- STORMSEAL-American Steel & Wire Co
- STORMSEAL—United States Steel Co
- STRAND-Fenestra Building Prodnote
- STRAN-STEEL-Great Lakes Steel Corn
- STRATOLINE-American Cabinet
- Hardware Corp STREAMAIRE—Young Radiator Co
- STREAMLINE-Tylac Co
- STREAMLUX-American Cabinet Hardware Corp STRI-COLOR—Flintkote Co
- STRIKE-RITE—Stanley Works STRIPITE—Bostwick Steel Lath Co STRIPITE—Penn Metal Co Inc
- STRONG-BILT-Upson Co
- STRONGHOLD-Independent Nail
- & Packing Co STRUCTO-CAL—U S Gypsum Co STRUCTOLITE—U S Gypsum Co STRUCTROBOARD—U S Gypsum
- Co
- STRUCTURAL CORRUGATED. Mississippi Glass Co
- STUCCO MESH-U S Gypsum Co STURDIBILT—Eikay Mfg Co STURDY—Calder Mfg Co SUDDEN DEPTH—Paine Co (The)
- SUNBEAM-American Radiator &
- Standard Sanitary Corp SUNFLEX—National Gypsum Co
- SUNFLOWER-Certain-teed Prod-
- ucts Corp SUNFLOWER-Ohio Hydrate & Supply Co SUN-GLO—Pittsburgh Plate Glass
- Co
- SUNPROOF-Pittsburgh Plate **Glass** Co
- SUN-SASH-Sun-Sash Co
- SUN VITA-Keystone Wire Cloth Co
- SUPERAIR—Majestic Co SUPER-EX—Inland Steel Products
- Ca SUPER-FELT-Johns-Manville
- Corp
- SUPER-HARBORD-Harbor Plywood Corp
- SUPER HARBORD PLYCRETE-Harbor Plywood Corp

SUPERIOR-Carr Adams & Collier Co

SUPERIOR—Crane Company SUPERIOR—Inland Steel Products

Co

- SUPERMETIC-Servel Inc SUPER-PLYCRETE-Harbor Ply-

SUPER-TEMPERED-Wickwire

SUPER-TITE-U S Gypsum Co SUPER WEIGHT-Barrett Div

Allied Chemical & Dye Corp

SUPER-X-Republic Steel Corp

SUPREME-Southern Pine Lum-

AMERICAN BUILDER

SUPREME-Maita Mfg Co SUPREME-Samson Cordage

SUPER-STRIP-Carev

Spencer Steel Corp

Ce

Mfg Co

Works

ber Co

wood Corp SUPER-SAW—R C S Tool Sales Corp SUPER STEEL-Williamson Heater

(Philin)

SURE GRIP-Samson Cordage THERMOTEX B-Carey (Philip) Warks WORKS SUREGRIP—Stanley Works SURETY—Carey (Philip) Mfg Co SWANEE—Berger Mfg Div Republic Steel Corp SWING-UP—Stanley Works SWP-Sherwin-Williams Co SYNTEX—Flintkote Go SYNTRON—Syntron Go SYRACUSE—Porter-Cable Machine Co

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TAPERLOX—Flintkote Co TAPERTEX—Flintkote Co TAPGUN—Black & Decker Mfg Co TARBESTOS-Carey (Philip) Mfg Co TAR-ROK-Barrett Div Allied Chemical & Dye Corp TASGOM—Cabot (Samuel) Inc TAXITE\_Sherwin-Williams Co TECHIDE—Pittsburgh Plate Glass Co TECO. -Timber Engineering Co

TECTON-Bird & Son Inc TEE-LOCK-American Asphalt Reof Corp TEE-LOCK—Ruberold Co TEE-LOK—Ruberold Co TEKWOOD—U S Plywood Corp TEMBOARD—Armstrong Cork Co TEM-CLIPS—Armstrong Cork Co TEMLOK—Armstrong Cork Co TEMPERED DUOLUX—Masonite Corp TEMPERED PRESDWOOD\_Ma. sonite Corp TEMPERED TEMWOOD-Armstrong Cork Co TEMPRTILE—Masonite Corp TEMPRTILE—Truscon Steel Co TEMWOOD—Armstrong Cork Co TENLIME-Woodville Lime Co TENNESEAL—Tennessee Coal Iron & Railroad Co TENSION-TITE-Rudiger-Lang Co TEN-TEN-Allith-Prouty Inc TERMINIX-Bruce (E L) Co TERRAFLEX-Johns-Manville Corp TERRATOX-Wood-Treating Chemical Co TEXACO-Texas Co TEXBORD—Celotex Corp TEX-LOK—Texas Co TEXOLITE—U S Gypsum Co TEXROPE—Allis-Chalmers Mfg Co TEX-TAB—Ruberoid Co TEXTOLITE-General Electric Co Chemical Div TEXTONE—U S Gypsum Co THATCHSULATE—Carey (Philip) Mfg Co IE OVERHEAD DOOR-Over-THE head Door Corp THERMACOUSTIC-National Gypsum Co THERMAL-FLO—Goleman Co Inc THERMASTER-Thatcher Furnace Co THERMAX-Celetex Corp THERMOBRIC-Globe Siding Products Corp THERMO-CON—Higgins Inc THERMOCRETE—Certain-teed

**Products Co** THERMOFILL—U S Gypsum Co THERMO-GRIP—Ideal Industries

Inc THERMOPANE-Libbey-Owens-Ford Glass Co THERM-O-PANEL--Ohio Plate

**Glass** Co THERMOPILOT-General Controls Ca

THERMOSEAL—Flintkote Co THERMO-SEAL—Russell (F C) Co

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Mfg Co THIKBRIK-Flintkete Co

THIKBUT-Flintkete Co THOROLITH-Standard Dry Wall

Products Inc THOROSEAL-Standard Dry Wall

**Products Inc** THREE SIXTY\_Narman Products

Co THRIFTEX-Flintkote Co

TIGER—Samson Cordage Works TIGER—Texas Co

TIGER BRAND—American Steel & Wire Co Div U S Steel Corp TILE ROOFING—Carey (Philip) Mfg Co

TILE-TEX-Flintkote Co

TIMBERGRAIN-Ruberoid Co

TIMBERTEX-Ruberoid Co TIME-O-SWITCH-Minneapolis-

Honeywell Regulator Co TIMBERCOID—Mercoid Corp TIMERELAY—Minneapolis-Honey-

well Regulator Co

**TI-NAMEL**—Inland Steel Products Co

TINNER'S RED-Pittsburgh Plata

Glass Co TIN-O-LIN-Calbar Paint & Var-

nish Co TITE-LAP-Barrett Div Allied

Chemical & Dye Corp TITE-LOCK-Barrett Div Allied

Chemical & Dye Corp TITELOCK—Inland Steel Products

TITE-LOK-American Asphalt Roof Corp TITE-ON-Ruberoid Co

TITE-ROPE-Samson Cordage

**TOMAHAWK**—Barrett Div Allied Chemical & Dye Corp

TOMB-Barrett Div Allied Chemical & Dye Corp TONCAN—Republic Steel Corp

TOPCO-Malta Mfg Co TOR-ON-Pittsburgh Plate Glass

**TORPEDO**—Inland Steel Products

Co TORPEDO—Lawson (F H) Co TRAFFIC TOP—Celotex Corp

TRAFFORD TILE-Keashey &

Mattison Co

TRANSEX-Libbey-Owens-Ford

Glass Co TRANSITE—Johns-Manville Corp TRANSITE CONDUIT-Johns-Man-

ville Corp TRANSITE KORDUCT—Johns-

Manville Corp TRAVACOUSTIC—National Gyp-

sum Ce TRAVERTONE-Armstrong Cork

C. TRIANGLE-Keystone Steel &

Wire Co TRI-MESH-Keystone Steel &

Wire Co TRIM-TONE-U S Plywood Corp

TRIPLE DRAIN-Republic Steel Corp

TRIPLE LOCK-Deniston Co

TRIPLE-SEAL—Gelotex Corp TRIPLE-SEAL—Weatherproof

Products Corp TRIPLETAB—Flintkote Co

TRIPLE-VENT-US Gypsum Co TRIP-L-GRIP-Timber Engineer-

ing Co TRIPL-IFE-Williamson Heater Co

TRI-SAW—R C S Tools Sales Corp TRI-SEAL—Sherwin-Williams Co

Co

List of Manufacturers' Names With Addresses Starts on Page D-61

TRI-TAB—Bird & Son Inc TRI-TONE—Carey (Philip)

Co TRIUMPH-Inland Steel Products

Mfg

INIVERSAL Certain-teed Prod-

ucts Corp UNIVERSAL-RUNDLE-Universal-

UNIVERSAL-RUNDLE—Universal-Rundle Corp UPSON—Republic Steel Corp UPSON DUBL-THIK—Upson Co UPSON KUVER-KRAK—Upson Co UPSON STRONG-BILT—Upson Co U S—American Steel & Wire Co USF—United Steel Fabricators

Inc USG—U S Gypsum Co USP—U S Plywood Corp USS—American Steel & Wire Co

USS-Tennessee Goal Iron & Rail-

USS AMERICAN-American Steel

Steel Co USS COR TEN—Tennessee Coal

USS STORMSEAL—American Steel

& Wire Co USS STORMSEAL—United States

USS VITRENAMEL-United States

UTICA SERIES-Utica Radiator

-

VACKAR-Black & Decker Mfg Co

VACUUM DRAFT-Norge Heat Div

Borg Warner Corp VAN PACKER—Van Packer Corp

VARIJET-Flint & Walling Mfg

VARI-O-LITE-Flintkote Co VARI-PITCH-Allis-Chalmers Mfg

VELVAGRIP-American Cabinet

Hardware Corp VELVET—Keasbey & Mattison Co

VEL WOOD-Marsh Wall Prod-

ucts Inc VENTURA—American Blower Corp

Div American Radiator & Standard Sanitary Corp VENTURI-FLO—Barber-Colman Co

VICTOR-Richards Wilcox Mfg Co

VINTAGE-Coffman (R G) Co Inc

VISTA-Pittsburgh Plate Glass Co

VITOLOIL-Pittsburgh Plate Glass

VITRENAMEL—United States Steel

VITRICEL-Carey (Philip) Mfg

VITROLINER-Condensation En-

gineering Co VITROLITE-Libbey-Owens-Ford

VMP-Virginia Metal Products

Corp VOLOCITROL-Barber-Colman Co

D-59

Carn

VEOS-Armstrong Cork Co

VERMONT-Ruberoid Co VIBRAFRAM-Celotex Corp

VIBRAPAC-Besser Mfg Co

VISAFLAME-Mercoid Corp

VISCOROID-Abesto Mfg Co

VICTOR-Stanley Works

VIMLITE-Celanese America Plastics Div

VISKALT—Flintkote Co VISKOTE—Flintkote Co

VITRAMIC-Ruberoid Co

VITREKOTE-Flintkote Co

Co

Co

**Glass** Co

VELVETEX-Mosaic Tile Co

VELVEX-Libbey-Owens-Ford

CARILLOY-United States

USS\_United States Steel Co

USS—Cyclone Fence Co USS—National Tube Co

Iron & Railroad Co

Iron & Railroad Co

road Co

Steel Co

Steel Co

Corn

Co inc

Glass Co

uss

& Wire Co

Co

TROLLEY—Allith-Prouty Inc TROUBLE SAVER—Patent Scaf-

folding Co Inc TROUBLE SAVER-Steel Scattold-

ing Co Inc TRU-BILT-West Coast Plywood

Ca

Co TRU-FORM-Boice-Crane Co TRU-GRAIN-Johns-Manville Corp

TRUSCON—Truscon Steel Co TRU-SEAL—Industrial Mac Machina Tool Co Inc

TRU-SIZED—Wheeler Osgood Co TRUSS-LOOP—Bostwick Steel

I ath Ca

TRUSSTEEL-U S Gypsum TRUSS-WING-Bostwick Steel

Lath Co TRU-TYE—Dravo Corp TUB-CAULK—Miracle Adhesives Corn

TUBELOX-Patent Scaffolding Co Inc

TU-BORS-Barrows Lock Works TUFF-BOND-Moore (Goodlee E)

THEF-COTE-Moore (Goodine E)

Co

TILF-FLEX-Libbey-Owens-Ford

Glass Co TUFFLEX—Wood Conversion Co TUFF-TRED-Moore (Goodice E)

Ca TUFF-WOOD-Wood Conversion

Co TUF-LUSTRE-Bruce (E L) Co TULINE-Certain-teed Products Core

TURBOVANE-Westinghouse

Electric Corp Sturtevant Div TURN-OVER—Coburn Trolley Track Products Wickwire Spencer Steel Div Colorado Fuel &

Iron Corp TUSCAR—Pittsburgh Plate Glass

Co

TUTCH LATCH-National Lock Co TWIN-CUSHION-Macklanburg-

**Duncan** Co TWINDOW-Pittsburgh Plate

Glass Co TWINFUEL-Norman Products Co.

Inc TWIN LOCK—Bird & Son Inc TWIN-RING—Coleman Co TWIN-TILE—U S Gypsum Co

TWO DRAIN-Inland Steel Products Co.

TYLA-CHROME-Tylac Co TYLACHROMET-Tylac Co

TYLITE-Tylac Co

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U-LOY-Republic Steel Corp UNIFIL-Robinson Insulation Co UNI-FIN-Barber-Colman Co UNI-FLO-Barber-Colman Co UNIGRID-Truscon Steel Co UNILITE-U S Plywood Corp UNIPULL-Bennett-Ireland Inc UNISHEAR-Stanley Electric Tools

**Div Stanley Works** UNITAIRE-Westinghouse Electric UNITED STATES (U S)-Emerson

UNIVERSAL-Carey (Philip) Mfg

Corp Sturtevant Div

Electric Mfg Co

VORTEX-Westinghouse Electric

Corp Sturtevant Div VULCANITE—Certain-teed Preducts Corp

w

- WAKCO-Warren-Knight Co WALK-OVER-Barrett Div Allied
- Chemical & Dye Corp WALL-FLEX-R C A Rubber Co WALLHIDE-Pittsburgh Plate Glass Co
- WALTILE-Keasboy & Mattisen
- WAPPAT-Mall Tool Co
- WARM-AIRE-Bennett-Ireland Inc. WARWOOD-Lawson (F H) Co WASHBURNE-National Mfg Co
- WASP-Stanley Works WASTE-AWAY-Westinghouse
- Electric Corp Appliance Div
- WASTEKING-Given Mfg Co WATERDYKE-Bird & Son Inc WATERPLUG-Standard Dry Wall
- Products Inc WATERSPAR\_Pittsburgh Plate
- Glass Ce WATSON—Rubereid Co WAUKEGAN—American Steel &
- Wire Co WAVELINE-Flintkote Co WEATHER-BLOC-Air Rectifiers
- Inc
- WEATHERBOARD-Carey (Philip)
- Mfg Co WEATHERCALK-Pecora Paint Co
- Inc WEATHERCOTE\_American
- phait Roof Corp WEATHERGOOD—U S Gypsum Co WEATHERLOK—Johns-Manville
- Corn
- WEATHERMAKERS-Carrier Corp WEATHERMASTER-Kol-Master
- Corp

- WEATHERPAD-Ruberoid Co WEATHERPROOF-Weatherproof
- Products Corp WEATHER-SHIELD-Certain-tood
- Products Co WEATHERTITE-Johns-Manville
- Core
- WEATHERTITE-Pacora Paint Co Inc WEATHERWOOD-U S Gypsum
- WEDGE-EDGE-U S Plywood Corp WEDGELOCK-Barrett Div Allied
- Chemical & Dye Corp WEDGE-LOCK-Berger Div
- public Steel Corp WEDGE-TIGHT—Calder Mfg Co WEDGLOK—U S Plywood Corp
- WEED-NO-MORE-Sherwin-
- Williams Co
- Williams co WEIR-Meyer Furnace Co WEIR-MEYER HEAT-Meyer Furnace Co
- WELDBORD-U S Plywood Corp WELD-O-TROL-Westinghouse
- Electric Corp WELDTEX—U S Plywood Corp WELDW00D—Atlas Plywood
- Corr WELDWOOD-U S Plywood Corp
- WESLOCK-Westwood Mfg Co WESTAIR-Western Appliance Co Inc
- WESTAPE-Wesco Waterpaints Inc
- WESTBOARD-Washington Va.
- neer Co WESTMORELAND-American Radiator & Standard Sanitary Corp
- WEVECOTE-Insulite Div Minne seta & Ontario Paper Co
- WEVELITE—Insulite Div Min-nesota & Ontario Paper Co WEYERHAEUSER 4-SQUARE-
- Weverhaeuser Sales Co WHALE-Samson Cordage Works

- WHIRLWIND\_Black & Decker Mfg Co WHIRI WIND-EDGERS-Holt Mfg
- Co WHITE CHIEF-Carlson & Sulli-
- van inc WHITE ROCK—Celetex Corp WHITESTONE—American Asphalt
- Roof Corn
- WHITE-TAPE-Evans & Co WHITNEY-Whitney (Baxter D)
- & Son Inc WIGWAM-Ruberoid Co
- WILD ROSE-Coffman (R G) Co Inc
- WILLIAMSON-Williamson Heater Co
- (Philip) WINDMASTER-Carey WINDDMASTER Mfg Co WINDO TITE—Ludman Corp WINDOWALLS—Andersen Corp WINDSOR—U S Gypsum Co WINDSOR—U S Gypsum Co

- WINSLOW-Warren-Knight Co
- WINSLOW American Radiator & Standard Sanitary Corp
- WINTER WAY-American Radiator & Standard Sanitary Corp
- WINTHROP-Flintkote Co WINTITE-American Cabinet
- Hardware Corp WISSCO—Wickwire Spencer Steel Div Celorado Fuel & iron Corp WIZARD—Lufkin Rule Co WIONDER—Construction Machin-
- ery Sales Co
- WOODCRAFT-Sherwin-Williams Co
- WOODGRAIN-Flintkote Co WOODTEX-Gertain-teed Products
- Corn WOOLTEX-Huntington Industries
- Inc WOODVILLE-Ohio Hydrate &
- Supply Co WRICO—Warren-Knight Co WRIGHTEX—Wright Mfg Co

WRIGHTFLOW-Wright Mfg Co WRIGHTWAY-Wright Mfg Co

- WROUGHT BRASS OR BRONZE-American Cabinet Hardware
- Corp W-SHEETS-Wheeling Corrugat-

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- ing Co WYANDOTTE-American Radiator & Sanitary Corp
- WYR-WAY-Knapp Brothers Mfg
  - Ca WYTEFACE-Keuffel & Esser Co

x

- XDUCT JR-National Electric
- Products Corp XTRASTRONG—Samson Cordage Works

### Y

- YALE-Yale & Towne Mfg Co YELLOW-END-St Paul Corrugat-
- ing Co YOUNGSTOWN-Mullins Mfg Corp

### 7

- ZEEN-X-U S Gynsum Co
- ZEPHAIR-Hunter Fan & Ventilating Co ZEPHR\_Fiat Metal Mfg Co
- ZEPHYRS—Cree-Dipt Co Inc ZIG-ZAG—Stanley Works
- ZILO-Sherwin-Williams Co
- ZING-ALLOY-Inland Steel Prod-
- ucts Co ZIP-IN-Gincinnati Fly Screen Div
- Russell (F C) Co ZONATILE—Zonolite Co ZOURITE—Kawneer Co

List of Manufacturers' Names With Addresses Starts on Page D-61

# **1953 American Builder Directory** SECTION III

### **Names and Addresses** Manufacturers and Associations

PRINCIPAL MANUFACTURERS of building products order. In some instances, the manufacturing organization is listed under the name of a division rather than under the parent company; popular usage served as a guide in these cases. For example, the manufacturer of Chevrolet Trucks is listed as-Chevrolet Motors Div., General Motors Corp., rather than as-General Motors Corp., Chevrolet Motor Div.

Acme Appliance Mfg Co 35 Se Raymond Ave Apex Electrical Mfg Co 1020 E 152nd St **Pasadena Calif** 

- Adams & Westlake Co Safford St Eikhart Ind
- Adams Rite Mfg Co 540 West Chevy Chase Dr Glendale 1 Calif Aetna Steel Prods Corn 730 Fifth Ave New
- York 19 N Y Air Control Products Inc Glade St at Larch

Coopersville Mich Air Rectifiers Inc 3734 N Southport Ave

- Chicago 13 III Airtemp Div Chrysler Corp 1610 Webster St
- Dayton 1 0
- Alcasco Products Inc 1780 Creston 51 Muskegon Mich

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- Aldrich Co Wyoming III Allianceware Inc Alliance O
- Allied Building Gredits Inc 3109 Wilshire Blvd Los Angeles 5 Calif
- Allis-Chalmers Mfg Co 1126 S 70th St Milwaukee 1 Wis
- Allith-Prouty Inc 819 N Bowman Ave Danville 111
- Alimetal Weatherstrip Co 2241 N Knox Ave Chicago 39 III
- Alsynite Co of America 4654 De Seto San Diego 9 Calif
- Alumatic Corp of America 2081 S 56th St Milwaukee Wis
- **Aluminum Window Manufacturers Association** 74 Trinity Place New York 6 N
- Amerco Plastics 177 Broadway New York 7
- American Asphalt Roof Corp 7600 Truman Rd Kansas City 3 Mo American Cabinet Hardware Co 416 S Main
- St Rockford III
- American Cement Products 15496 Livernois Detroit Mich
- American Floor Surfacing Machine Co 515 S St Clair St Toledo 3 0
- American Hardware Corp Corbin (P & F) Div 102 Washington New Britain Conn
- American Hardware Corp Russell & Erwin Div 102 Washington New Britain Conn American Kitchens Div Avco Mfg Corp Stenib
- St Connersville Ind American Machine and Foundry Co 511 Fifth
- Ave New York N Y American Radiator & Standard Sanitary Corp
- P O Box 1226 Pittsburgh 30 Pa American Roof Truss Co 1030 E 87th St Chi-
- cago III American Shower Door Co Inc 1028 N La
- Brea Ave Los Angeles 38 Calif American Sta-Dri Co 4019 38th St Brentwood
- Md American Stained Shingle Co Spruce & Den-
- nison Aves Columbus 8 0 American Steel & Wire Co 1420 Rockefeller
- Bidg Cleveland 13 0
- American Telephone & Telegraph Co 195 Broadway New York 7 N Y American Welding & Mfg Co 190 Dietz Rd
- Warren O American Zinc Institute Inc 60 E 42nd St New
- York City 17 N Y Andersen Gorp Bayport Minn
- \* Advertis APRIL 1953

- Angel Nevelty Co 340 Broad St Fitchburg Bradley Lumber Co of Ark Warren Ark Mass
- **Cleveland 10 0**
- A-1 Plastic Molders Inc 1415 Diversey Pkwy Chicago III
- Arberite Ce Ltd 385 Lafleur Montreal Que Can
- Arkansas Soft Pine Bureau Boyle Bldg Little Rock Ark
- Armstrong Cork Co 1010 Concord St Lan-caster Pa
- Arps Corp New Holstein Wis
- Arrow Fastener Co 1 Junius Brooklyn 12 N Y Artcraft Ornamental Iron Co 724 É Hudson St Columbus 11 0
- Ashestone Corp 5380 Tchoupitoulas St New Orleans 15 La
- Associated Plywood Mills Eugene Ore Atlas Plywood Corp Statler Bidg Boston Mass
- Atlas Press Co 1973 N Pitcher St Kalamazon Mich
- Auth Electric Co Inc 34-20 45th St Long Island City 1 N Y

### B

- Barber-Colman Co 104 Mill St Rockford III
- Barco Mfg Co Barrington III Barrett Div Allied Chemical & Dve Corp 40 Rector St New York 6 N Y
- Behr-Manning Corp Div Norton Co 933 Sid-ford St Troy N Y
- Bell & Gossett Co 8200 Austin Morton Grave 111
- Belsaw Machinery Co 315 Westport Rd Kansas City 2 Mo
- Belson Mfg Co 111 Franklin St Aurora III Bendix Mfg Co 192 Lexington Ave New York
- 16 N Y Bennett-Ireland Inc 1151 Market St Norwich
- NY Berger Mfg Div Republic Steel Corp 1038
- Bolden Ave N E Canton 5 0 Berns Mfg Co 3050 N Rockwell St Chicago 18 111
- Besser Mfg Co Elm St Alpena Mich
- Bessler Disappearing Stairway Co 1900 E. Market St Akron 5 0 Better Homes & Gardens 1714 Locust St Des
- **Meines 3 lowa** Bianco Mfg Co 2736 Victor St St Louis Mo Biersach & Niedermeyer Co 1937 N Hubbard
- Milwaukee Wis Biglin (H C) Co Inc 177 Harris St N W PO
- Box 1517 Atlanta Ga
- Bilco Co 164 Hallock Ave New Haven & Conn
- Bil-Jax Co 100 Wyse Rd Archbold O Binswanger & Co 207 N Main St Heuston 1
- Texas Bird & Son Inc 47 Wilson St East Walpole
- Mass
- Black & Decker Mfg Co 600 E Pennsylvania Ave Towson 4 Md Boice Grane Co 930 W Central Ave Toledo
- 6 0
- Bostitch Inc 1101 Mechanic St Westerly R I Bostrom Brady Mfg Co 537 Stonewall St S
- W Atlanta Ga Bostwick Steel Lath Co 101 Heaton Ave Niles O
- Bradford Machine Tool Co 657-671 Evans St Cincinnati 4 0

In other cases such as those involving departments of companies, the more popular major name is used as the key to the index. For example, the garage hardware department of the Stanley Works is indexed as follows-

Stanley Works, Garage Hardware Dept.

Care has been taken to make this index as accurate as possible, but the American Builder is not responsible for changes in addresses and other discrepancies.

## Brammer Mfg Co Davenport la Briar Hill Stone Co Glenmont O

- Briggs Mfg Co 3001 Miller Ave Detroit 11 Mich
- Brown Co 150 Causeway St Boston 14 Mass Brown (George C) & Co Inc Greensboro N C Brown-Graves Co 191 E Miller Ave Akron 1 O Bruce (E L) Co 1648 Thomas Ava Memphis
- 1 Tenn Bryant Heater Div Affiliated Gas Equipment
- Inc 17825 St Clair St Cleveland 10 0 B & T Metals Co 425 W Town Columbus 16 0
- Buckeye Screen & Weatherstrip Co 1378 S 22nd St Columbus 6 0
- Bucyrus-Erie Co 1046 Monroe Ave Milwaukee Wis
- Builders Mfg Co 1514 Brown-Marx Bldg Birmingham Ala Bulldog Electric Products Co 7610 Joseph
- Campau Box 177 Detroit 32 Mich Bundy Tubing Co 8109 E Jefferson St Detroit
- Mich Burnham Corp Beiler Div Balter St Irvington-
- on-Hudson N Y Bush Mfg Co 179 South St West Hartford 10
- Conn Butler (B B) Mfg Co Inc 3150 Randelph Bellwood III

C

- Cabot (Samuel) Inc 141 Milk St Boston 9 Mass
- Calbar Paint & Varnish Co 2612-26 N Martha
- St Philadelphia 25 Pa Calder Mfg Go 630 N Prince St Lancaster 3 Pa
- California Redwood Association 576 Sacramente St San Francisco 11 Calif
- Capitol Kitchens Div Hubeny Bros Inc 615 E First Ave Roselle N J
- Carey (Philip) Mfg Co 316 S Wayne Lockland Cincinnati 15 0 Carlson & Sullivan Inc 1617 S California Avc

Carrier Corp 302 S Geddes St Syracuse 1 N Y Carter Engineering Co Warrenton Va

Carter-Waters Corp 2440 Pennway Kansas

Case (W A) & Son Mfg Co 33 Main St Buf-falo 3 N Y

Ceco Steel Products Corp 5601 W 26th St

Cedar Rapids Block Co Dur-O-Wal Div 656 Twelth Ave S W Cedar Rapids Ia Celetex Corp 120 S LaSalle St Chicago 3 III Central Metal Strip Co 4343 N Western Ave Chicago 18 III

Certain-feed Products Corp 120 E Lancaster

Ave Ardmore Pa Chase Brass & Copper Co 236 Grand St Waterbury 91 Conn Chattanooga Implement & Mfg Co Chatta-

Chevrolet Div General Motors Corp General

Motors Bldg Detroit 2 Mich Chicago Tribune 1333 Tribune Tower Chicago

**Cincinnati Iron Fence Co Inc 2101 Florence** 

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Carr Adams & Collier Co Dubuque la

Monrevia Calif

City 8 Mo

Chicago 50 III

neoga Tenn

Cincinnati 6 0

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- Circulators & Devices Mfg Co 128-160 32 St Brookly 32 N Y
- Clipper Mfg Co 2800 Warwick Kansas City Mo Coffman (R G) Co Inc 2809 N Orange Ave Orlando Fia
- Coleman Co Inc Second & St Francis St Wichita 1 Kan Colonial Cedar Co 600 W Nickerson St Se-
- attle 99 Wash Colorado Fuel & Iron Corp Continental Oil
- Bidg Denver 2 Colo Condensation Engineering Corp 3511 W Po-
- tomic Ave Chicago 51 Ill Connor Lumber & Land Co Box 112 Marsh-
- field Wis **Construction Machinery Sales Co 420 Vinton**
- St Waterlee la Cook (Loren) Co 664 Front St Barea O
- Copce Steel & Engineering Co 14035 Grand River Ave Detroit 27 Mich
- Corbin (P & F) Div American Hardware Corp 67 Park Ave New Britain Conn Craig Wood Products Co Brennan Rd Colum-
- bus Ga
- Crane Co 836 S Michigan Ave Chicago 5 III Crawford Door Co 401 St Jean Ave Detroit
- 14 Mich Creo-Dipt Co Inc 986 Oliver St N Tonawanda
- NY Crosley Div Avco Mfg Corp 1329 Arlington St
- Cincinnati O
- Grossett Lumber Go Grossett Ark Gummins Portable Tools Div Gummins-Chi-cago Gorp 4740 N Ravensweed Ave Chicage
- 40 111 Cuprinel Div Darworth Inc 2 Maple St Simsbury Conn
- Curtis Companies Inc 1200 S Second Ave **Clinton** la D

Dalton Mfg Co 20 S Central Ave St Louis 5

- Damp-Vent Co 212 17th St Box 203 Bettendorf la
- Daniels (C R) Inc 4900 Block Wetheredsville Rd Hillsdale Baltimore 16 Md
- Dant & Russell Inc Portand Ore
- Davies (J A) & Co 314 Straight S W Grand Rapids Mich Dearborn Metors 2500 E Maple Rd Birming-
- ham Mich
- Debs Decorators Old Middleton Rd Madison 5 Wis
- Decatur Pump Co 2750 Nelson Park Drive Decatur III
- **Delco Appliance Div General Motors Corp** Lyell & Whitney Sts Rochester N Y DeLuxe Metal Trim Co 3343 Franklin St Louis
- Mo
- Deniston Co 4856 S Western Ave Chicago III Detroit Steel Products Co 2250 E Grand Blvd Detroit 11 Mich
- **DeWalt Inc P 0 Bex 540 Lancaster Pa**
- Dexter Lock Co Grand Rapids Mich
- Dodge Bros Div Chrysler Corp 7900 Joseph Campau Ave Detroit Mich
- Dodge (F W) Corp 119 W 40th St New York 18 N Y
- Douglas Fir Plywood Association Tacoma Bidg Tacoma 2 Wash Dremei Mfg Co 2409 18th St Racine Wis Dunham (C A) Co 400 W Madison St Ghicago
- 6 111
- Dunkirk Radiator Corp 85 Middle Rd Dunkirk
- **Dura-Bilt Tool Co Natick Mass**

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- Eagle Lock Co 20 S Main St Terryville Conn Earle Hardware Mfg Co Noble & Gregg Sts **Reading Pa**
- **Electromode Corp 45 Grouch St Rochester 3**
- Eljer Co Ford City Pa
- Elkay Mfg Co 1874 So 54th Ave Chicage 50 111
- Emerson Electric Mfg Co 8100 Florissant Ave St Louis 21 Mo
- **Empire Stove Co Belleville III**
- Etling Window 24 Huston St Barberton O Evans & Co 400-416 Trumbull St Elizabeth
- Eveready Briksaw Co 1509 S Michigan Blvd Chicago 5 III

Ez-Way Sales Inc Div of Minnesota Wood Specialties Inc Box 300 Dept A St Paul Park Minn F

- Factory Built Homes Inc McDenough N Y Fageol Heat Machine Co 5725 Mt Elliott Ava Detroit 11 Mich
- Fair (D L) Lumber Co Louisville Miss
- Fasco Industries Inc 255 N Union St Rochester 2 N V
- Fastener Corp 860 Fletcher St Chicago 14 III
- Fawsce Mrg Div Falls Stamping & Welding Co 1703 Front St Cuyahoga Falls O Fedders Qeigan Corp 70 Tonawanda St Buf-falo 7 N Y
- Fenestra Building Products 2250 E Grand
- Blvd Detroit 11 Mich Fiat Metal Mfg Co \$301 W Belmont Ave
- Franklin Park III Fir Door Institute 1205 Rust Bldg Tacoma
- 2 Wash Fleet of America Inc 110 Pearl St Buffalo 2 NV
- Flintkote Co 30 Rockefeller Plaza New York 20 N Y
- Flint & Walling Mfg Co 95 Dak St Kendallville Ind
- Flush Wall Radio Co 1012 Cleveland St Clearwater Fla
- Flynn (Michael) Mfg Co 700 E Godfrey Ave Philadelphia 24 Pa
- Foldaway Stairway Co Inc 813 Seaboard St Portsmouth Va
- Foley Mfg Go 3300 N E Fifth St Minneanolis 18 Minn Follanshee Steel Co Third & Liberty Sts Pitts-
- burgh 30 Pa
- Ford (Iven R) Inc McDenough N Y
- Ford Motor Co Dearborn Mic
- Formica Co 4614 Spring Grove Ave Cincinnati 32 0
- Forsberg Mfg Co 125 Seaview Ave Bridge-port 1 Conn
- Frantz Mfg Co Sterling III

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- Garlinghouse (L F) Co Inc 820 Quincy St **Topeka Kan**
- Gate City Sash & Deer Co P D Box 901 Fort Lauderdale Fla
- Gates & Son Inc 80 S Galapage Denver 9 Colo
- GBH-Way Homes Inc Walnut III General Air Cenditioning Corp Cincinnati 9 0 General Bronze Corp Stewart Ave Garden City L I N Y
- General Electric Co Chemical Div Pittsfield Mass
- **General Electric Co Construction Materials**
- Dept 1285 Boston Ave Bridgeport 2 Conn General Electric Co Home Bureau & Contract Sales Dept 310 W Liberty St Louisville 2 Ky
- General Portland Cement Co 111 W Monroe
- St Rm 905 Chicage 3 III General Products Co Fredericksburg Va
- Georgia-Pacific Plywood Co 270 Park Ave New York 17 N
- Gerity-Michigan Corp 10 S Superior St Toledo 4 0
- Getty (H S) & Co Inc 3348 N 10th St Philadelphia 40 Pa
- Given Mfg Co 3301 Fruitland Ave Los Angeles 58 Calif
- Glide Windows Inc 7463 Varna Ave N Hollywood Calif
- Good Housekeeping 57th St at 8th Ave New York 19 N Y
- Grand Haven Stamped Products Co Grand Haven Mich
- Grant Pulley & Hardware Co 31-85 Whitestone Parkway Flushing L I N 1
- Great Lakes Carbon Corp Perlite Div 612 S Flower Los Angeles 17 Calif
- Great Lakes Steel Corp 3750 Penobscot Bldg Dotreit 26 Mich
- Great Lakes Steel Corp Stran-Steel Div Penobscot Bldg Detroit 26 Mich
- Gregg & Son 21-31 Blandin Ave Framingham Mass
- Grillcraft Co 1067 St Clair Ave St Paul 5 Minn
- Grote Mfg Co LaFayette & Grandview Sts **Bellevue Ky**
- Gunnison Homes Corp U S Steel Corp Sub New Albany Ind

H Hachmeister Inc 1300 Island Ave Pittshursh Hager (C) & Sons Hinge Mfg Co 139 Victor

Hall-Mack Co 1344 W Washington Blvd Los Angeles 7 Calif

Hansen (A L) Mfr Co 5037 N Ravenswood

Harbor Plywood Corp Box 940 Aberdeen

Harnischfeger Corp 4400 W National Ave Mil-

waukee 14 Wis Hart Products Div Stratton & Terstegge Go

Box 311 New Albany Ind Haskelite Mfg Corp 701 Ann St N W Grand

Hassail (John) Inc Clay & Oakland Sts Brooklyn 22 N Y

Heatilator Inc 661 E Brighton Ave Syracuse

Heinemann (F) Saw & Mfg Co Canton 6 O Herman Nelson Second & Contral Ave Louis-

Heston & Anderson Div St Paul Foundry &

Higgins Inc Industrial Canal New Orleans La Holt Mfg Co 651-681 Twentieth St Oakland

Holt Mfg Co 272 Badger Ave Newark 8 N J

Homasote Co 1935 Harvey Rd Trenton 3 N J Homelite Corp 67 Riverdale Ave Port Chester

Home of the Week Plan Service 89 Elmorova

Hope's Windows Inc 84 Hopkins Ave James-

Hotpoint Inc 5600 W Taylor St Chicago 44

Hough Shade Corp 1203 S Jackson St Janes-ville Wis

House Beautiful 572 Madison Ave New York

Howell Mfg Co Cottman St & Hasbrook Ave

Hunter Douglas Corp 150 Broadway New

Hunter Fan & Ventilating Co 381 S Front St Memphis 2 Tenn

Huntington Industries Inc 2368 Prospect Mem-

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Independent Lock Co 1950 Clephorn St Fitch-

Independent Nail & Packing Co Stone St

Independent Pneumatic Teol Co State &

Industrial Machine Tool Co Inc 301 S Oak

Infra Insulation Inc 525 Broadway New York

Inland Steel Products Co 4111 W Burnham

Insulite Co Div Minnesota & Ontario Paper Co 500 Baker Arcade Bldg Minneapolis 2

International Cut Stone Contractor's Quarryman's Association ndianapolis Ind

T

Jaeger Machine Co 500 W Spring St Colum-

JMJ Industries Inc 226 Centerville Ave Belle-

Johns-Manville Corp 22 E 40th St New York

Johnson (S T) Co 940 Arlington Ave Oakland

Jones & Brown Inc 439 Sixth Ave Pittsburgh

19 Pa Jones & Laughlin Steel Corp 401 Liberty Ave Pittsburgh 30 Pa Pittsburgh 30 Pa

Kaiser Aluminum & Chemical Sales Inc 1924

**Broadway Oakland 12 Calif** 

Kaustine Co Inc Perry N Y

International Homes Inc Mineral Ridge O

In-Sink-Erator Co 1201 14th St Racine Wis

Mfr Co 601 Kirkwood Ave Fairfield Ia

Hess Co 1855 S 54th Ave Chicage 50 III

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Philadelphia 11 Pa

York 38 N Y

nhis Tenn

burg Mass

**Bridgewater Mass** 

St Fenton Mich

**Milwaukee Wis** 

N Y

Minn

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ville III

16 N Y

8 Calif

St Louis 16 Mo

Claim Sts Aurora III

Hubeny Brothers Inc Reselle N J

NV

III

St St Louis 4 Mo

Ave Chicago 40 III

Rapids 2 Mich

Kawneer Co 714 N Front St Niles Mich

Kay-Tite Co 46 Lexington Dr Livingston N J K-D Garage Door Sales 19830 Fitzpatrick De-

- troit 28 Mich
- Keasbey & Mattison Co 1944 Mitchell St Ambler Pa
- Kelvinator Div Nash-Kelvinator Co 14250 Plymouth Rd Detroit 32 Mich Kenitex Corp 854 S Robertson Blvd Los Angeles 35 Calif
- Kennatrack Corp Rt 5 E Jackson Blvd Elk-
- hart Ind Kentile Inc 58 Second Ave Brooklyn N Y
- Keuffel & Esser Co 300 Adams St Hoboken ....
- Kewanee Mfg Co 150 Burlington Ave Kewanee III
- Keystone Steel & Wire Co 7000 S Adams Peoria 7 III
- Keystene Wire Cloth Ce Hanover Pa
- Kimball Mfg Co 1629 Sycamore Royal Oak Mich
- Kimble Glass Co P 0 Box 1035 Toledo 1 0 Kirlin Co 3435 E Jefferson Ave Detroit Mich
- Kitchen Maid Corp Andrews Ind
- Knights (James) Co Wells & Church Sts Sandwich III
- Kohler Go 44 High St Kohler Wis Koven (L 0) & Bro Inc Dept AB 154 Ogden Ave Jersey City 7 N J
- Kwikset Sales & Service Co 516 E Santa Ana Ave Anaheim Calif

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- Laboratory Equipment Corp Hilltop Rd St Joseph Mich
- Laclede Steel Co Arcade Bldg St Louis Mo LaSalle Products Inc 151 Seneca St Buffalo
- 3 N Y Lau Blower Co 2001 Home Ave Dayton 7 0
- Lawson (F H) Co Evans & Whately Sts Cincinnati 4 0
- Leslie Welding Co 2937 W Carroll Ave Chicago III
- Levelall 83 Webster St Rockland Mass Libbey-Owens-Ferd Glass Co Nicholas Bldg 12th Fl Toledo 3 O
- Linseed Oil Products 355 H Del Monte St
- Pasadena Galif Lithibar Co 54 W 8th St Holland Mich
- Lockwood Hardware Mfg Co 1950 Cleghorn St Fitchburg Mass Lone Star Cement Corp 342 Madison Ave
- New York 17 N Y
- Long-Bell Lumber Co R A Long Bldg Kansas City 6 Mo Louisville Cement Co 315 Guthrie St Louisville
- 2 Ky Lucke (William B) Co 514 Railroad Ave Wil-
- mette III
- Ludman Corp 14100 Biscayne Blvd Miami Fla Lufkin Rule Co 1730 Hess Ave Saginaw Mich
- Lumite Div Chicopee Mills Inc 47 Worth St New York 13 N Y

M

- Macklanburg-Duncan Co P O Box 1197 Oklahoma City 1 Okla
- Majestic Co Brown St Huntington Ind Malibu Mfg Gorp 521 N LaCienega Blvd Los
- Angeles 48 Calif Mall Tool Co 7740 South Chicago Ave Chi-
- cago 19 III
- Malta Mfg Co Malta O
- Maple Flooring Manufacturers' Association 35
- E Wacker Drive Chicago 1 III Markel Electric Products Inc 129-149 Seneca St Buffalo 3 N Y
- Marmet Corp P 0 Box 208 Wausau Wis
- Marquette Cement Mfg Co 20 N Wacker Dr
- Chicago III Marsh Wall Products Inc 268 Main St Dever
- 0 Masonite Corp 111 W Washington St Chicago
- 2 111 Master Metal Strip Serv Inc 1720 N Kilbourn
- Ave Chicago 39 III Master Rule Mfg Co Lac 201 Main St White
- Plains N Y Mastic Tile Corp of America N Montgomery Newburgh N
- McMahan Bros 2220 S Hoover St Los Angeles 7 Galif
- Medusa Portland Cement Co 1000 Midland Bidg Cleveland 15 0

Mengel Co 1122 Dumesnil St Louisville 1 Ky Mercoid Corp 4201 W Belmont Ave Chicago 111

Norge Heat Div Borg-Warner Corp 346 E

South St Kalamazoo Mich Norman Products Co 1150 Chesaneake Col-

Norton Co 1 New Bond St Worcester 6 Mass

NuTone Inc Red Bank & Madison Rds Cin-

Nu-Wall Mfg Co 923 N 19th St Milwaukee 3

0

Oliver Corn Cletrac Div 400 W Madison St

Chicago III One-Der Frame Corp 2109 Third Ave N Birm-

Overhead Door Corp P R R & Kickapoe St

**Owens-Corning Fiberglas Corp Nicholas Bldg** 

Owens-Illinois Glass Co Kaylo Div Box 1035

D

Pacific Lumber Co 35 E Wacker Dr Chicago

Paine Lumber Co Ltd 73 W Algona Oshkosh

Parkay Inc 5000 Crittenden Dr Louisville 9

Parks Woodworking Machine Co 1524 Knewl-

Patent Scaffolding Co Inc 33-21 12th St Long

Island City 1 N Y Pearson (0) Mfg Co PO Box 255 Lake Villa

Pecora Paint Co Inc 4th St & Rdg R R

Philadelphia 40 Pa Penn Matal Co inc 140 Central St Boston 9

Per-Fit Products Corp 1200 E 52nd St In-

dianapolis 20 Ind Perma Products Co 5455 Broadway Cleveland

Peterson Products Co 1013-17 N Bluff St

Peterson Window Co 1341 E 8-Mile Rd Fern-

Pittsburgh Corning Corp 307 4th Ave Pitts-

Pittsburgh Plate Glass Ce Grant Bldg Pitts-

Place Homes Inc 1212 S Walnut St South

Plasken Div Libbey-Owens-Ferd Glass Co

Nicholas Bldg Toledo 6 0 Ponderesa Pine Woodwork 38 S Dearborn

Chicago 3 III Pootatuck Corp 24-48 Main St Stratford Conn

Porter Cable Machine Co 1714 N Salina St Syracuse 8 N Y

Portland Cement Assn 33 W Grand Ave

Precision Parts Corp 402 N First St Nash-

Prefabricated Home Mfrs Inst 908 20th St

Prestile Mfg Co 5850 W Ogden Ave Chicage

Price Fireplace Heater & Tank Corp Five

Protection Products Mfg Co 2305 Superior St

Pro-Tect-U Jalouise Corp 4525 Ponce De Leon Blvd Coral Gables Fla

Protectub Inc 71 Ludiow St New York N Y Pryne & Co Inc N Towne & Railroad Ave Pomona Calif

R

Ramset Fasteners Inc 12117 Berea Rd Cleve-

Raynor Mfg Co E River Rd Dixon III R C A Rubber Co 1833 E Market St Akron

C S Tool Sales Corp 200 Moem Ave Bx

Readybuilt Products Co 1707 McHenry St

**Powder Power Tool Co Portland Ore** 

N W Washington 6 D C

Austin Place Buffalo 7 N Y Prime Mover Co Muscatine la

Kalamazoe 99 Mich

Paine Co 2951 Carroll Ave Chicago 12 III

Ohio Foundry & Mfg Co Steubenville O Ohio Hydrate & Supply Co Woodville O Ohio Plate Glass Co Box 496 Toledo 4 O

umhus 12 0

cinnati 27 0

Wie

Nova Sales Inc Trenton 3 N

ingham 3 Ala Ornas & La Barre Detroit Mich

Hartford City Ind

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Toleda 0

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Mass

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Janesville Wis

dale 20 Mich

burgh 22 Pa

burgh 19 Pa

Chicago 10 III

ville 7 Tenn

land 11 0

1434 Joliet III

Baltimore 23 Md

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50 III

Bend Ind

Talada 1 0

- Meredith Publishing Corn 1716 Locust St Des Moines 3 la
- Mesker (George L) Steel Corp 1940 Stumpf St Evansville Ind
- Metal Arts Mfg Co P O Box 4144 Harwell & Oakcliff Rds S W Atlanta Ga
- Metalbestos Div Wallace (William) Co Belmont Calif
- Metal Crafters E Ave at 18th St N E Codar Rapids la
- Metal Products Corp 807 N W 20th St Miami 37 51-
- Mayer Furnace Co 1300 S Washington Peoria 111
- Miami Window Corp 5200 N W 37th Ave Miami Fla Milwaukee Elec Tool Corp 5316 W State St
- Milwaukee 8 Wis
- Milwaukee Flush Valve Co 301 E Reservoir Ave Milwaukee 12 Wis Milwaukee Strip Service Inc 4621-23 W Lisbon
- Ave Milwaukee 8 Wis
- Minneapolis-Honeywell Regulator Co 2747 S Fourth Ave Minneapolis 8 Minn
- Miracle Adhesives Corp 214 E 53rd St New Vork 22 N V
- Mississippi Glass Co 88 Angelica St St Louis 7 Ma
- Modern Homes Corp 7742 Greenfield Dearborn Mich Modine Mfg Co 1300 DeKoven Ave Racine Wis
- Monsanto Chemical Co 1700 S Second St St Louis 4 Mo
- Moore (Goodloe E) Co 2811 N Vermillion Danville 2 III
- Moorhead Brick & Tile Go St Joseph Mo
- Morrison Steel Products Inc 601 Amherst St **Buffalo 7 N Y**
- Mortell (J W) Co 550 N Hobbie St Kankakee 111
- Mosaic Tile Co 1949 Pershing Ave Zanesville 0
- Moultile Inc N Montgomery St Newburgh N Y Mueller (L J) Furnace Co 2005 W Oklahoma St Milwaukee 15 Wis
- Mulkey (Sam) Co 1621 Locust Kansas City
- 8 Mo Muller Machinery Co Inc 248 Whitman Ave
- Metuchen N J Mullins Mfg Corp Warren O
- Murphy Door Bed Co 19 W 44th St New York 36 N
- **Murray Company of Texas Dallas Tex**
- Murray Corporation of America 7700 Russell Detroit 11 Mich

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- National Brass Co 1609 Madison Ave S E Grand Rapids 2 Mich
- National Clay Pipe Mfrs Inc 100 N LaSalle St Chicago 2 III
- National Co Inc 61 Sherman St Malden Mass
- National Electrical Mfrs Assn 155 E 44th St New York City N )
- National Electrical Products Corp PO Box 897 Pittsburgh 30 Pa
- National Gypsum Co 325 Delaware Ave Buffalo 2 N Y
- National Homes Corp Bypass Rd Lafavette Ind
- National Lock Co 1902 7th St Rockford III National Log Structures Stayton Ore National Mfg Co Sterling III National Oak Flooring Mfrs Assn 814 Sterick

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- **Bldg Memphis Tenn**
- National Plastic Products Co Odenton Md National Steel Cabinet Co 2415 N Pulaski Rd
- Chicago 39 III
- National System Garage Ventilation 330 N Church St Decatur III
- New Castle Products Co New Castle Ind New Monarch Machine & Stamping Co 406 S W Ninth St Des Moines 9 Ia
- New York Wire Cloth Co New Canaan Conn
- Nichols Wire & Aluminum Co 1729 Rockingham Rd Davenport la
- Nixalite Co of America 115 W 3rd St Davenport la Nordahi Co 180 W Alameda Ave Burbank

Norge Cottages Inc 21 West St New York 6

Ready Hung Door Corn Neil P Anderson Bldg Fort Worth 2 Tex

Red Cedar Shingle Bureau 5508 White Bldg Seattle 1 Wash Red Devil Teols Colt St Irvington 11 N J Reflectal Corp 155 E 44th St New York 17 N Y Reinhold Publishing Corp 330 W 42nd St

- New York 36 N Y **Remington Arms Co Inc Industrial Tool Div**
- 936 Barunm Ave Bridgeport 2 Conn Remington Rand Inc Systems Div 315 Fourth Ave New York 10 N Y
- **Republic Steel Corp Republic Bldg Cleveland**

**Resolite Corp Zelienople Pa** 

- Reynolds Metals Co Building Products Div 2001 S Ninth St Louisville 1 Kv
- Reznor Mfg Co David St Mercer Pa Rheem Mfg Co 570 Lexington Ave New York
- 22 N Y Richards-Wilcox Co 174 Third St Aurora III Richcraft Co 510 N Dearborn St Chicage
- 10 111 Richmond Builders Inc 425 N W K Street
- **Richmond Ind**
- Richmond Radiator Co 19 E 47th St New York 17 N Y
- **Bilco Laminated Products Inc First National** Bank Bldg St Paul 1 Minn
- Rittenhouse Co Inc Earl St Honeove Falls N Y Roberts Gordon Appiance Corp 44 Central Ave Buffalo 6 N Y
- Robot Appliances Inc 13171 Prospect Ave
- Dearborn Mich
- Rockaway Sales Ce Rt 6 Rockaway 22 N J Rockawell Mfg Ce Delta Power Toel Div 400 N Lexington Ave Pittsburgh 8 Pa
- Roddis Plywood Corp 1155 Palmetto Marshfield Wis
- **Roiscreen Co Pella la**

- Rowe Mfg Co Galesburg III R O W Sales Co 1365 Academy Royal Oak
- 3 Mich Ruberoid Co 500 Fifth Ave New York 36 N Y
- Rudiger-Lang Co 8th & Carleton Sts Berkeley 10 Calif
- Russel & Erwin Div American Hardware Corp **102 Washington New Britain Conn**
- Russell (F C) Co Union Commerce Bldg Annex Cleveland 1 0
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Safway Steel Products Inc 6228 W State St **Milwaukee Wis** 

- Sager-Barrows Div Yalo & Towne Mfg Co Berrien Springs Mich
- St Paul Corrugating Co S End Wabasha St **Bridge St Paul 1 Minn**
- St Paul Foundry & Mfg Co Como Ave at Ryan St St Paul 3 Minn
- St Regis Paper Co 230 Park Ave New York 17 N Y
- Samson Cordage Wks 89 Broad St Boston 10 Mass
- San Angelo Plan PO Box 1470 San Angelo Tex

Sargent & Co Water St New Haven 9 Conn

- Scharf (J H) Mfg Co Omaha Nebr Schlage Lock Co 2201 Bay Shore Blvd San Francisco 19 Calif Scott (O M) & Sons Co Marysville O
- Sedgwick Machine Wks 150 W 15th St New
- York N Y Servel Inc 119 N Morton St Evansville 20 Ind

Sharp's Mfg Co Salem Ore Shepler Mfg Co 1229 Goebel St Pittsburgh 33 Pa

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- Shingistik 7600 Truman Rd Kansas City Mo Simonds Saw & Steel Co 470 Main St Fitch-
- burg Mass Simplex Level Co 6826 E Warren Detroit 7
- Mich Sin-Jin Products Co 5236-40 Fairlawn Ave
- **Baltimore 15 Md** Sisalkraft Co 205 W Wacker Dr Chicago 6
- 111
- Skil Corp 5033 Elston Ave Chicago 30 III Slide-View Steel Door & Window Co 521 La
- Cienega Blvd Les Angeles Galif Smith (L C) & Corona Typewriters Inc 701 E
- Washington St Syracuse 1 N Y Solvay Process Div Allied Chemical & Dye Corp 40 Rector St New York 6 N Y

Sonoco Products Co South St Hartsville S C Southern Pine Lumber Co Diboll Tex Southern Screw Co 118 Rickert St Statesville

- . Specialty Tool Mfrs Inc 732 S Illinois Belle-
- ville III Stained Shingle & Shake Association 5527
- White Bldg Seattle Wash Standard Building Products Co 621 McDonald Ave Brooklyn 18 N Y
- Standard Dry Wall Products Inc 77 Hudmont St New Eagle Pa Standard Steel Wks 16th & Howell N Kansas
- City Mo Stanley Electric Tool Div Stanley Wks New
- Britain Conn Stanley Tools Div Stanley Wks New Britain
- Conn Stanley Wks New Britain Conn
- Steadfast Equipment Co 874 Franklin Ave Thornwood N Y
- Steelcraft Mfg Co 9017 Blue Ash Rd Rossmoyne O
- Steel Door Corp 359 \$ Jessie St Pontiac Mich Steel Scatfolding Co Inc 856 Humboldt St Brookiyn 22 N Y
- Sterling Hardware Mfg Co 2345 Nelson St
- Chicago 18 III unicago 16 III Sterling Paint & Varnish Co 155 Commercial St Malden Mass Stewart Mfg Co 3209 E Washington St Indianapolis Ind
- Strand Garage Door Div Detroit Steel Prod-ucts Co 3101 Griffin St Detroit 11 Mich
- Stran-Steel Div Great Lakes Steel Corp Tecumseh & Ecorse Ecorse 29 Mich
- Stratton & Terstegge Co Box 311 New Albany Ind
- Structural Clay Products Institute 1520 18th St N W Washingon 6 D C Sturdee Metal Porch Co P O Box 671 Balti-
- more 3 Md
- Sun Sash Co 38 Park Row New York 7 N Y Superior Fireplace Co 1708 E 15th St Los
- **Angeles 21 Calif**
- Sutton (O A) Corp 1812 W 2nd St Wichita Kan
- Swift Business Machines Corn Great Barrington Mass
- Symons Clamp & Mfg Co 4249 Diversey Ave Chicago 39 III
- Syntron Co Black St Homer City Pa

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- Temco Inc 4104 Park Ave Nashville 9 Tenn Tennessee Coal Iron & Railroad Co 20th St at 1st Ave Birmingham Ala
- Tennessee Fabricating Co 1490 Grimes St Momphis Tenn
- Texas Co 135 E 42nd St New York 17 N Y Thomason Plywood Corp P O Box 352 Fav-
- etteville N C Thorn Co (J S) Co Allegheny Ave & Twentieth
- St Philadolphia 32 Pa Thrush (H A) & Co Peru Ind Tile Council of America 10 E 40th St New
- York N Y
- Timber Engineering Co 1319 18th St N W Washington 6 D C
- Timber Structures Inc P 0 Box 3782 Portland 8 Ore
- Timken Silent Automatic Div Timken-Detroit Axie Co 100 Clark St Jackson 32 Mich Toledo Desk & Fixture Co Maumee O
- Tracy Mfg Co Div of Edgewater Steel Co P O Box 1137 Pittsburgh Pa
- Trade-Wind Motorfans Inc 5725 S Main St
- Los Angeles 37 Calif Trinity Portland Cement Div General Portland Cement Co 111 W Monroe St Chicago III
- Tri-Saw Corp 6611 Clayton Rd St Louis 17 Me
- Troyer Driveway Service 2157 South Park Ave Buffalo 20 N Y
- Truscon Steel Co Sub Republic Steel Corp 6100 Truscon Ave Youngstown 1 0
- Turner & Seymour Mfg Co Lawton St Torrington Conn
- Tylac Co Monticello III Typheon Air Conditioning Co Inc 794 Union St Brooklyn 15 N Y

U S Gypsum Co 300 W Adams St Chicago & III

U S Plywood Corp 55 W 44th St New York

11

18 N Y

U S Steel Co 525 William Penn Place Pittsburgh 30 Pa United Steel Fabricators Inc 333 Gasche St

- Wooster 0 Universal Atlas Cement Co 100 Park Ave
- New York 17 N Universal-Rundle Corp Box 960 New Castle

Valley Plywood Co 72 W Broadway Eugene

Van-Packer Corp 209 S LaSalle St Chicago

Vento Steel Products Co Inc 250 Colorado

Vikon Tile Corp Washington N J Virginia Metal Products Go 60 Hudson St

Vulcan Radiator Co 26 Francis Ave Hartford

187

Wadsworth Homes Inc 6011 Johnson Dr

Warren-Knight Cu 138 N 12th St Philadelphia

Washington Steel Products Inc 1940 E 11th

Waterfilm Boilers Inc 154 Ogden Ave Jersey

Weatherproof Products Corp Waldo Sta P O Box 8498 Kansas City 5 Mo Weather-Seal Inc 24 W Huron St Barberton O Weatherstrip Research Institute 259 Addison

Wel-Bilt Products Co Box 95 Memphis 1 Tenn

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Western Metal Specialty Co 1211 N 62nd St Milwaukee 13 Wis

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Westinghouse Electric Corp Appliance Div

Westinghouse Electric Corp Electric Appli-ance Div 653 Page Blvd Springfield 2 Mass Westinghouse Electric Corp Lamp Div Bloom-

Westwood Mfg Co P O Box 2261 Terminal

Weyerhaeuser Sales Co First National Bank

White (David) Co 319 W Court St Milwaukee

Whitney (Baxter D) & Son Inc Witchendon

Wickwire Spencer Steel Div Colorado Fuel &

Wiggin's (H B) Sons Co 56 Arch St Bloom-

Wiley (John) & Sons Inc 440 Fourth Ave

Williamson Heater Co 3500 Madison Rd Cin-

Woodal Industries Inc 7571 E McNichols Rd

Wood Conversion Co First National Bank

Worthington Corp Construction Equipment Sales Div Plainfield N J Wright Mfg Co Wright Rubber Products Div P O Box 6557 Houston 5 Tex

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Yale & Towne Mfg Co Philadelphia Div 11000 Roosevelt Blvd Philadelphia 15 Pa

Yale & Towne Mfg Co Stamford Conn Yerk-Shipley Inc P O Box 349 York Pa Young Radiator Co 709 S Marquette St Racine Wis

7

Zegers Inc 8090 South Chicago Ave Chicago

Zonolite Co Field Bldg 135 \$ Lasalle St

Wiremold Co Station & Hartford 10 Conn

Iron Corp 575 Madison Ave New York 19

Upson Co 43 Upson Pt Lockport N Y

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Chicago 3 III

New York 16 N Y

**Detroit 34 Mich** 

**Bidg St Paul 1 Minn** 

Wagner Mfg Co Cedar Falls Ia

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West Coast Mills Chehalis Wash

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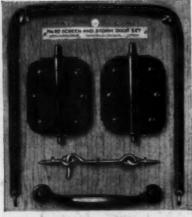
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