Six ways to vary a basic plan ➤

A subdivision of reconditioned houses

For rent or sale—these duplexes find a ready market

BLUEPRINT HOUSE—California builder blends styles to capture sales

Can dealers meet the challenge of direct buying? ▼
ARCHITECTS, BUILDERS
and HOME BUYERS AGREE...

NuTone
Makes Your New Homes
"Look Like a Million"

THIS YEAR, MORE THAN EVER, NuTone "Dress-Ups" can make your homes easier to sell, especially to women.

NUTONE OFFERS YOU 3 BIG FEATURES which every woman wants in her new home . . . and the cost is ONLY $100 or less (at list prices).

EVEN LOW COST HOMES CAN AFFORD to "Look Like a Million" with a NuTone Ventilating Fan, for Fresh, Clean Air in the Kitchen . . . a NuTone Door Chime, for a Friendly Musical Welcome at the Door . . . and a NuTone Electric Ceiling Heater, for a "Toasty-Warm" Bathroom.

Ask your Wiring Contractor to show you how to "Dress Up" your homes with NuTone.

FREE CATALOGS . . . INSTALLATION DATA

Call your NuTone Distributor or write
NuTone, Inc., Dept. AB-5, Cincinnati 27, Ohio

NUTONE
Kitchen Fans
Door Chimes
Ceiling Heaters
the **kwikset** "400" line
the quality lock for quantity building

**MILLIONS IN USE** — The famous KWIKSET "400" line of economy locksets are installed on the doors of private residences and large-scale housing developments throughout the United States and the entire world.

**TROUBLE-FREE SERVICE** — KWIKSET'S rugged construction and "sealed-on" plastic-coated finishes assure years of dependable, trouble-free service... guarantee the best possible value for your hardware dollar.

**FAST, EASY INSTALLATION** — KWIKSET'S team of time saving installation aids cuts installation costs to a minimum, providing further profits for home builders.

KWIKSET'S unconditional guarantee stands behind every "400" line lockset ever sold.
There's nothing like the new

**DEXTER**

"Single Bore"

SCREEN AND COMBINATION DOOR LOCK SET

Low in cost—installs easily!

Dexter's "Single Bore" screen and combination door lock set is famous Dexter quality through and through... exterior parts solid brass... interior parts steel, no die castings... locks safely, securely from inside at the touch of a fingertip... lock fits doors from 5/8" to 1 3/8" thick... no adjustment necessary... ideal for use with door closer... costs less and is Dexter Lifetime Guaranteed.

Installs in minutes!

You bore only one 1 3/2" hole to install the Dexter "Single Bore." This means hours saved in door installations.

Easy to plane door edge!

Because "Single Bore" does not have a protruding latch bolt, nothing interferes with planing edge of door after installation. Again, costly time is saved.

"SOFT TOUCH" yielding strike!

The Dexter "Soft Touch" yielding strike of the "Single Bore" requires no mortising, mounts on surface of door jamb. Metal lever yields when door closes, locks securely.
Now—a thermostat in every room

*including bathrooms

WITH IRON FIREMAN SELECTEMP — A NEW TYPE OF CENTRAL HEATING SYSTEM

THE idea of an individual thermostat in every room—and the almost unbelievable improvement in home comfort inherent in such a system—is something that prospective home owners can understand at a glance. With SelectTemp heating they can have any temperature desired, in any room, at any time. Furthermore, SelectTemp is exceptionally responsive. The temperature level of any room can be changed in just a few minutes.

SelectTemp is a central heating system, with a revolutionary type of room heating unit. Each unit includes thermostat, heat exchanger, circulating fan and filter.

Every room is an individual zone

Filtered warm air is circulated continuously by each room unit, which automatically modulates both the temperature and volume of the circulated air. If desired, any proportion of outside air can be introduced for ventilation. Another feature is that with heating units on outside walls, the thermostats sense drops in outdoor temperature before room air is affected, building up indoor air temperature to compensate for colder walls.

SelectTemp is not limited to two or three “zones.” Every room—even the bathroom—is an individual zone, yet SelectTemp costs no more than many heating systems with only one thermostat in the whole house.

Mail coupon below for complete, detailed information.

SelectTemp Highlights

THERMOSTAT IN EVERY ROOM. Temperatures can be varied in every room to fit the “activity plan” and personal preference of the occupants.

MODULATED HEAT. Air circulation is continuous. Both temperature and volume of air are automatically modulated, as required to offset heat loss from room.

FILTERED, CIRCULATED AIR. Individual room air circulation prevents transmission of odors or bacteria from other rooms. Air is cleaned by a spun glass filter in each room unit. Filtered outside air can be introduced if desired.

BOILER LOCATION. Does not require centrally located heating plant. Boiler can be placed in any desired location, with proper distribution of heat to every room.

LOW POWER COST. No electricity required to operate circulating fans. Nonelectric thermostatic type of room heating unit. Each unit includes stats.

LOW INITIAL COST. No other system can be so easily installed in either new or old construction. Small soft copper tubing (1/2 inch I.D.) carries steam to individual room heater units. Return lines are 1/4 inch. Substantial savings in installation costs.

LOW FUEL COST. Temperature easily reduced in unused rooms. Eliminates overheating.

AUTOMATICALLY BALANCED. No special adjustments of dampers, valves or orifices required to balance heating system. Each unit continuously regulates heat needed for each room. Automatically compensates for external heat sources such as fireplace or solar heat, without affecting temperatures of other rooms.

Send for Full Information

IRON FIREMAN MANUFACTURING CO. 3168 W. 106th Street, Cleveland 11, Ohio.

Please send literature on Iron Fireman SelectTemp heating.

Name......................................................................................................................................................

Address...................................................................................................................................................

City..............................................................................................................State...........................

AMERICAN BUILDER
Yes, the Dealer Will Stay

For many months this magazine has been concerned about trends in the distribution of building materials. Our concern prompted an article in the issue of October, 1953, in which an emphatic no was given as an answer to the question, "Is the distribution system for building materials outmoded?"

In the months since October our editors have been asking questions of both dealers and builders in all parts of the country. These questions sought to determine whether builders prefer to buy direct or would rather do business through retail lumber and building material dealers. They also sought to determine from the dealers why they think their builder business is in jeopardy or has been lost.

Generally, the dealers who have lost their builder business think it is because there is nothing they can do to hold it. It will probably come as a surprise to most of these dealers to learn that the majority of the builders who were interviewed said that they prefer to purchase from dealers, but that poor service has forced many of them to deal directly with manufacturers. There are, of course, many dealers who have studied the needs and problems of operative builders, and then have restyled their own operations to conform to the needs of the builder. These dealers are having no trouble, losing no business. In fact, some of them have increased their builder business substantially.

And the dealers, through their Lumber Dealers Research Council, have developed a system of yard-fabricated structural panels which they believe will be mutually beneficial to themselves and the builders, and help to preserve their builder business. The Research Institute of NAHB has expressed itself as being deeply interested in the economic soundness of preserving dealer-builder relationships.

In this issue we are attacking the problem again, and have cited some cases in which builder-dealer relationships are firm. In each case, we have detailed precisely what both the dealer and the builder have done to realize maximum economy and better profits to each through the use of better design, better planning and ordering procedures on the part of the builder; and changed operation on the part of the dealer. We are more convinced than ever that with proper application and study on both sides, the normal channels of distribution are still the most economical ever devised for this industry.

American Builder is sponsoring a conference in Chicago which will bring together a score of distribution specialists from several segments of the industry. The purpose is to discuss the distribution problem and the trends in panelization and manufactured constituent structural parts. And, finally to establish a pattern for co-ordinated research, and the restoration of order to the distribution process. We believe it can be done with economy to all as the end result. In the meantime, we recommend careful reading of the article in this issue, and we invite comments.
dollar volume of building increasing

For the eighth consecutive month, housing starts declined from the corresponding month in the previous year, according to estimates of non-farm housing started in the United States compiled by the Bureau of Labor Statistics.

A total of 73,000 dwelling units were started in February, 1954, as compared with 79,200 a year ago, a decrease of 6,200 units, or eight per cent. Since June, 1953, the decline has amounted to 50,000 units.

Home building is maintaining, nevertheless, an annual rate of more than a million units on a seasonally adjusted basis, according to the index maintained by the Bureau. The seasonally adjusted rate was 1,078,000 units in January, 1954, and 1,180,000 units in February.

Expenditures for new construction for the first two months of 1954 advanced slightly over the previous year. Expenditures for new dwelling units were up seven per cent while commercial building was up 47 per cent and institutional, 18 per cent. Industrial building expenditures declined 12 per cent in the same period. Farm construction expenditures declined 10 per cent and public construction decreased four per cent in dollar volume.

The increase of seven per cent in dollar volume of residential construction, in the face of a decline of eight per cent in number of units, can be accounted for only by the fact that homes are more costly. It is probable that they are somewhat larger; labor costs have advanced, too.

According to the Commissioner of the Bureau of Labor Statistics, "home building promises to be one of the most important factors in sustaining employment and consumer incomes during the coming year." Increases in the dollar volume of commercial and institutional building also have been very substantial.

The prices of building materials have remained relatively steady during the past year. Most materials show small increases. The composite price index of the Department of Commerce stands at 119.5 (1947-1949 = 100). Prices remained at a level substantially higher than they were prior to 1950.

Union hourly wage rates of building trade workers have increased much more than the cost of materials. The union wage rate index now stands at 133.0 (1947-1949 = 100). During the year there was an advance of 11 per cent in this index.

In accordance with slight increases in the cost of materials and greater increases in the cost of construction, labor, construction cost indexes of residences, apartment hotels and office buildings also have advanced slightly. The construction costs of residences is now 121.3 (1947-1949 = 100): apartments, hotels and office buildings, 127.3; and commercial and factory buildings, 127.8. The increase over last year is one per cent for residences, and three per cent for apartment hotels, office buildings, commercial and factory buildings.

HOW'S BUSINESS? Per Cent Change Compared With Last Year

<table>
<thead>
<tr>
<th>DWELLING UNITS STARTED</th>
<th>Per Cent Up</th>
<th>Per Cent Down</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Construction</td>
<td>+ 7%</td>
<td>- 8%</td>
</tr>
<tr>
<td>Residential Alterations</td>
<td>+ 7%</td>
<td>- 8%</td>
</tr>
<tr>
<td>Industrial</td>
<td>-12%</td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>+47%</td>
<td></td>
</tr>
<tr>
<td>Institutional</td>
<td>+18%</td>
<td></td>
</tr>
<tr>
<td>Farm Construction</td>
<td>-10%</td>
<td></td>
</tr>
<tr>
<td>Public Construction</td>
<td>- 4%</td>
<td></td>
</tr>
<tr>
<td>Total Construction</td>
<td>+ 1%</td>
<td></td>
</tr>
</tbody>
</table>

PRICE CHANGES

| Building Brick         | + 3%       |
| Cement                 | + 7%       |
| Lumber                 | - 3%       |
| Paint                  | + 2%       |
| Plumbing Equipment     | N. C.      |
| Heating Equipment      | + 2%       |

LABOR COSTS

| Average Hourly Earnings of Construction Labor | +11% |
| Residences                                   |     |
| Apartment Hotels and Office Buildings        | + 1% |
| Commercial and Factory Buildings             | + 3% |
| N.C. = No change                             |     |
"YOU DON'T HAVE TO SELL today's value-hunting home buyer, if you build with the quality brand names he expects and demands in his new house. That's why we use at least 20 Post-advertised materials and appliances in the houses we build. Those names are a merchant builder's best salesmen." (Manufacturers of building materials, equipment and fixtures place more advertising dollars in the Post than in any other consumer magazine.)
LATE FHA DEVELOPMENTS (original story on page 41). Acting FHA Commissioner Norman P. Mason, in one of his first official acts, announced the retirement of Deputy FHA Commissioner Walter L. Greene, effective April 15. With FHA from its beginning 20 years ago, Greene had served as its commissioner from July, 1952, to April, 1953.

Senator Homer Capehart said Senate Banking Committee would delay hearings on housing bill about two weeks, devote full time to conducting its own investigation rather than let FHA investigate itself. He said the committee had voted unanimously to request a $250,000 appropriation to do a "full and complete" job.

Senator Harry F. Byrd said the Joint Committee on Reduction of Non-essential Federal Expenditures had conducted an investigation almost a year "without fanfare," would not abandon it now. He scheduled an open hearing for the following week and said HHFA Administrator Cole himself would be questioned under oath.

In New York, at a Mortgage Bankers Association conference, W. A. Clarke, president, charged that the forced resignation of Guy T. O. Hollyday, a former president, was unjust and unwise. He speculated that the real motive behind the firing might have been inspired by Hollyday's opposition to an administration plan for HHFA to absorb FHA.

Later, Hughes criticized holding up passage of the housing bill while investigators probe alleged irregularities which for the most part occurred years ago under another administration.

It would be "a major tragedy for the American people and the administration's No. 1 political mistake," he said, "if it substituted headline hunting for passage of a housing bill which would benefit millions of people needing more adequate housing.

"While I realize there may be some publicity value inherent in investigations, the facts show that the FHA operations currently under question represent far less than 1 per cent of the agency's total operations. Let's not let a very small tail wag a very big dog."

CLASSIFIED AD CAMPAIGN introduced by Chicago Metropolitan Home Builders Association serves two-fold purpose of helping members sell homes and adding prestige to the association. Ads are prepared in typical one-column classified-display style, drive home the thought to buyers that their down payment is protected by a $100,000 fidelity bond if they deal with a member. Six ads were prepared on this theme; three are used among the classifieds each Sunday.

TEN CENTS AN HOUR MORE, from $3.30 to $3.40, is called for by carpenters union in Nassau County, N.Y., effective May 1. Long Island Home Builders Institute held special labor meeting, decided to hold the line against all proposed wage and other increases. They are advising subcontractors that "builders will not absorb increased costs from any contractors who may independently agree to increases at this time." The decision extends, it was emphasized even to the possible necessity of discontinuing operations.
Here's a Great New Sales Feature...

— the new Pressure-Seal Damper — found only in the 3-Star Heatilator Fireplace. Actually seals the throat of the fireplace airtight when the fireplace is not in use. Stops loss of house heat up the chimney. Prevents chimney downdrafts from sending blasts of cold air into the room. In air-conditioned homes, seals chimney against loss of expensive summer cooling as well as winter warmth.

When the Pressure-Seal Damper is closed the damper blade rests snugly against a specially designed asbestos gasket. Then, a slight additional pressure on the damper handle firmly sets the blade against the gasket and locks in place. This provides a positive airtight seal until the damper is again opened by an easy pull on the control handle.
No-Strike Law Urged to Settle Union Disputes

A law compelling unions to establish procedures for settlement of jurisdictional disputes without recourse to strikes was urged last month by Vernon L. Williams, representative of the Kansas legislature and member of the Kansas State Chamber of Commerce.

Such procedures, he advised at a meeting of the Wichita Association of Home Builders, are advocated by the chamber and "should be a legal requirement in all labor-management contracts."

Williams, who is wages and salaries administrator of the Coleman Company, said: "Almost every builder has seen or actually experienced the jurisdictional dispute. A jurisdictional strike may be precipitated by a plumbers' union and an electrical workers' union disagreeing on which is to install air conditioning in a project or even in a single building. It makes no difference that the builder has bought and paid for the equipment and he is ready and eager to pay a fair price for its installation. He cannot make the decision which will settle the dispute, even though he may be injured greatly."

The secondary boycott is another activity which should be prohibited by state law, Williams pointed out. Now, he said, a union representative can tell a builder that if he buys plumbing equipment, for example, from the XYZ Company he will be "unfair to organized labor" and that if he persists, his own employees will be "pulled off their jobs."

Confer on Housing Minority Groups

Leading builders of the state met in Columbus to discuss ideas for program of 11th annual Ohio Home Builders Association convention and exposition to be held Nov. 21-23 in Commodore Perry Hotel, Toledo. They are (clockwise): E. E. Krautman and Hudson Force, Akron; A. B. Stamberry, Toledo, OHBA president; Melvin E. Kimmey, Ralph Sharp and Joseph B. Haverstick, Dayton; Joseph J. Robers, Cincinnati; Fred Bostelman, E. H. Crowell (chairman) and Dale Mehling, Toledo; John L. Morley, Mansfield. A. J. Alexander, Akron

Four-County Home Builder Group Formed in New York

Thirty home builders and suppliers from four upstate New York counties have organized the Duso Home Builders Association with the intention of becoming affiliated with the New York State Home Builders Association and the National Association of Home Builders. The name is a coined word which contains the first letter of each county represented: Dutchess, Ulster, Sullivan and Orange. Dominick Brancato, Poughkeepsie, is chairman.

Cuts GI Loan Processing Time

Joseph F. O'Hern, New Jersey manager, Veterans Administration, announcing acceptance of uniform real estate sales agreement submitted by New Jersey Home Builders Association. Looking on are (from left) Ralph Carletta, chairman of the association's VA committee; Richard D. Hudson, president, and Chester L. Brown, VA loan guarantee officer.

Mapping Convention Plans for Ohio
A new door designed for use with central air conditioning or perimeter warm air heating. Equipped with a neat grille at bottom of panel, it eliminates need for return ducts or unsightly gap at bottom of door. Since the door allows free circulation of air between rooms, it permits closed door privacy without upsetting the balance of the system.

All steel construction, prime finished, the new Amweld Air Conditioning Door compliments any style of interior. Designed for use with Amweld K-D Inter-Lok frames — both door and frame can be installed in 11 minutes.

Available in 2'0", 2'4", 2'6", 2'8" and 3'0" widths and for standard 6'8" openings. See your Amweld dealer today, or write to us for catalog.

EFFECTIVE GRILLE AREA
Grilles are of uniform height and vary according to door widths: Grille area adequate for normal residential applications.
SAVE TIME, LABOR AND MATERIAL WITH

Single-Unit CLAY MASONRY

ALL THE EXTRA SALES VALUES OF BRICK AND TILE AT FRAME COSTS

- Minimum Maintenance  - Fire Safety
- Permanence        - All-Weather Protection
- Flexibility of Color, Texture, Design

Typical 6" Thru-the-Wall Burned Clay Units
(These meet FHA and all national building code requirements for one-story houses)

"SCR brick®" a solid, modular unit with coring not more than 25% of total volume. With furring strips, continuous base flashing and weep holes, this unit provides excellent weather protection in the most severe climates. Jamb slot accommodates metal or wood windows.

"SCR brick—Type SM™" is 8" long and has one large core in the center. Available in New York City and vicinity.

*Reg. TM, SCPRF; Pat. Pending

12" Hollow Unit — A modular clay tile unit, vertically cored with a void volume of about 40%, designed for use with or without furring. Furring is advisable where wind-driven rains occur or where insulation is necessary in cooler climates. Also provides window jamb slot.

12" Hollow Unit—A vertically cored clay tile unit with 6" x 4" x 12" nominal dimensions, designed for use with or without furring. For construction details on these units, just write us on your letterhead.

STURCTURAL CLAY PRODUCTS INSTITUTE

1220 18TH STREET, N.W., WASHINGTON 6, D.C.
Rose Plans 1845 Homes In Detroit This Year

"When you find yourself in a position where you have a new type home that's popular with home seekers and an easy mortgage market, there's only one thing for a builder to do—and that's to build as many homes as possible."

Irving Rose, president of Edward Rose & Sons, made that statement immediately after announcing that his firm planned to erect 1,845 homes this year, a considerable increase over 1953 production. New units will be built in 12 individual developments spotted in seven Detroit suburbs. The popular house he had in mind was the Midwest Contemporary model which has been selling briskly since Rose introduced it last fall. American Builder featured it as its "blueprint house" last January.

Roamin' the North—

Atlantic City's famed boardwalk has a new attraction this year. The Atlantic HBA has opened a permanent exhibit of home building equipment, materials and supplies in the Hotel Brighton. Humbert C. Pontiere, president, and Ocean City contractor, says the showing is intended primarily to keep builders informed on the latest materials and equipment, but will be open to the public. The 180-member organization has moved its office, headed by Bert Wilson, executive director, to the hotel. . . . First chairman of NAHB's new Young Home Builders Council is Bruce S. Blietz, vice president of the Irvin A. Blietz Companies, developers in Chicago's northern suburbs. . . . Milwaukee HBA has moved forward the date of its Parade of Homes from National Home Week to the week starting August 8.

Plan Remodeling Center

St. Paul builders George Donnay and Martin Reitz have purchased a theater building, plan to convert it to a large studio or housing rehabilitation center from which they can operate a remodeling program. So that it can be developed into a real one-stop operation, they expect to take in about five firms in related lines, such as plumbing and heating, building materials, etc. New home construction will be continued; in fact, the firm anticipated some of the "re-done" houses will be the down payments on new units. . . . HBA of Mercer County (N.J.) now is called the Delaware Valley HBA since much of Burlington County was added to its territory.

Michigan Hears the Trade-In Story

"Trade-in panel" held the spotlight at Grand Rapids convention of Michigan Association of Home Builders. Reading from left: John Worthman, Fort Wayne, Ind., builder; Donald L. Cederlund, Grand Rapids, new NAHB leader; John F. McCarthy, Chicago attorney and tax expert; Wendell Edwards, Detroit FHA director; Edward G. Gavin, American Builder editor, moderator; J. L. Zar, American Builder field editor; William E. Trade, Chicago builder; Kenneth Draper, president, Michigan Real Estate Association; Robert A. Taggart, president, Michigan Mortgage Bankers Association, and William T. Boersma, Grand Rapids appraiser.

With All Best Wishes

LeRoy C. Lutz, 1953 president of the Michigan Association of Home Builders, hands the gavel to his successor, Donald L. Cederlund.

Kent D. Johnson, 17-year-old Muskegon High student (right), receives Michigan Association award from Al Borgman for winning statewide model home contest.
building weather for May

An exclusive American Builder service
prepared by Irving P. Krick, Ph.D., and Staff

Special climatic studies were made for selected cities in each area to determine AVERAGE and LAST YEAR Operational Days. ESTIMATES are generally applicable to each area. Precipitation and temperatures extreme enough to stop outside work have been forecast as number of NON-operational days. Naturally, inside work may on occasion proceed even through the cold and wet spells shown.

NORTH: The North section of the United States may expect better working weather during the coming month than that observed last May.

The weather during May, 1954, in Area 1 is expected to be characterized by working conditions less favorable than usual. Considerable variation in both temperatures and precipitation is anticipated. In the eastern sectors, warm and dry weather is likely to occur while in the western portion, colder and wetter than normal weather is expected. In May of last year, colder and somewhat wetter conditions were recorded in Area 1.

Last May, this central mid-western area experienced warmer than usual weather in the east and colder than usual weather in the west. Rainfall amounts generally were deficient as compared to the monthly normal. For May of this year, more favorable working weather is in prospect as warm and dry conditions are anticipated. The number of operational days, therefore, should exceed both last year’s total and the long-term average.

Timing of weather events is indicative of trends. Don’t expect precipitation on every day of the period indicated.

Thunderstorms occur with greatest frequency during the afternoons (usually, the period when it’s hottest). The highest number of storms occur in Florida, around Tampa, with the Rocky Mountains a close runner-up. The mechanics of thunderstorms is simple. All you need is moist air that is forced upward. Most of the time moist air is given the needed lift by the sun’s heating of the surface, hence thunderstorms occur with greatest frequency during the warmer months. Warm, moist air being forced aloft over mountains, is another way of getting the needed lift. Still another—and this gives Florida the highest thunderstorm frequency of any state in the Union—is to have sea breezes come at each other from opposite directions, and be forced aloft along their line of collision.

When the air rises high enough, whatever the reason, it cools with elevation reaching its dew point or condensation level which creates the typically flat base of the thunderstorm cloud. Additional lift forces the cloud higher and higher until it reaches a level so cold that the water drops in the cloud freeze into ice crystals and form the “anvil top” common to the fully developed thunderstorm.
Here's a real tonic for new home sales! Aristoflex vinyl-plastic flooring not only serves as a powerful PLUS selling aid with the vinyl-minded buying public... but keeps your budget in line, too. And these are the reasons. In standard-gauge thickness it's comparable in price to grease-proof asphalt tile... in beauty and durability, it's a real eye-opener to prospective home buyers, as only modern vinyl-plastic can be. The advantages are many. Since Aristoflex is vinyl-plastic from top to bottom (no felt backing!) it can be used on, above or below grade. The smooth, non-porous surface resists acids, alkalies, greases and fire. The radiant colors and marbleization go clear through each tile. And from the builder's standpoint, Aristoflex saves labor costs, because it lays in easily, requires less handling by the mechanic. Also available in ½" thickness. Look into MATICO ARISTOFLEX today. Write for full details.

Dept. 5-5

MASTIC TILE CORPORATION OF AMERICA
Manufacturers of: Aristoflex • Confetti • Parquetry • Asphalt Tile • Cork Tile • Plastic Wall Tile
Joliet, Ill. • Long Beach, Calif. • Newburgh, N.Y.
You Can Obtain These Membership Dividends

- Latest information on mortgage finance, government agency regulations, design, construction techniques, merchandising
- An effective voice in local, State and National government affairs affecting your business
- Competent technical advice on construction problems available at all times
- "Up-to-the-minute" special bulletins on all home building developments
- Highly informative meetings keep you posted on all local trends, provide opportunity to exchange ideas with fellow builders on how to produce and sell a better home

Here is the opportunity of your business lifetime... an open door to hundreds of practical benefits... making you better informed, better equipped to engage in this highly competitive industry. NAHB is composed of over 29,000 members representing all segments of the industry. It was organized by builders—for builders—to encourage the constant improvement of home building techniques and practices. It is the unchallenged spokesman for the industry.

Do yourself a favor—decide NOW to investigate membership in this progressive organization serving your industry. Learn how it can serve YOU.
AMERICA'S FAVORITE DOUBLE-HUNG WINDOW!

One man can install a built-up R·O·W window. Taking out sash lightens the unit for easier handling. Sash can be primed and safely stored until the job is ready for interior trim. Builders report labor savings up to 50%.

See your local lumber dealer or write

R·O·W SALES CO. 1328-66 ACADEMY AVENUE - FERNDALE 20, MICHIGAN

R·O·W is the registered trade mark of the R·O·W Sales Co.
AUTHORIZED R.O.W. DISTRIBUTORS:

NEW HAMPSHIRE
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North Bergen, New Jersey

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GENERAL WOODCRAFT COMPANY, INC.
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Westville, New Jersey

NEW YORK
GENERAL WOODCRAFT COMPANY, INC.
North Bergen, New Jersey
A. ROBERSON & SON, INC.
Binghamton, New York
THE WHITMER-JACKSON CO., INC.
Buffalo, Rochester, New York

NORTH DAKOTA
JACK & KINNARD & COMPANY
Minot, North Dakota

OHIO
EABROW MFG., INC.
Toledo, Ohio
THE MANGENEE SASH & DOOR COMPANY
Canton, Youngstown, Ohio
R.O.W. WHOLESALE DISTRIBUTORS, INC.
Norwood, Ohio

PENNSYLVANIA
ADELMAN LUMBER COMPANY
Pittsburgh, Pennsylvania
JOHNSON & WIMSATT, INC.
Westville, New Jersey
A. ROBERSON & SON, INC.
Binghamton, New York

RHODE ISLAND
GENERAL WOODCRAFT COMPANY, INC.
North Bergen, New Jersey

SOUTH DAKOTA
WATERTOWN SASH & DOOR COMPANY
Watertown, South Dakota

VERMONT
GENERAL WOODCRAFT COMPANY, INC.
North Bergen, New Jersey

WEST VIRGINIA
R.O.W. DISTRIBUTORS
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WISCONSIN
WISCONSIN WINDOW UNIT COMPANY
Merrill, Wisconsin

CANADA
D. PORTER & SON
Stellarton, Nova Scotia, Canada

SO SMART!
SO NEW!
THEY'LL
BOOST SALES, TOO

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R-O-W is the registered trade mark of the R.O.W. Sales Co.
French provincial in Kansas City
can be expanded to 5 bedrooms

The first French provincial home to be built in the new Indian Fields subdivision of the J. C. Nichols Company at Kansas City features an unusual dining-television or all-purpose room over 18 feet long. Paneled in driftwood, it has a picture mural on its long inside wall. An open-three-sides fireplace with raised slump brick hearth capped by quarry tile serves as a divider between this area and the 15x21½ living room. Both rooms open onto an 8x21 green concrete patio in the rear.

Designed by Edward W. Tanner & Associates, the home occupies a plot approximately 115x145 and was priced at $36,500. First floor living area totals 1,620 square feet. Space upstairs can be utilized, when needed, for fourth and fifth bedrooms and a third bathroom.

The exterior is of slump brick, also rough cedar boards and batten, with a cedar shingle roof. Andersen wood casement windows are used on the front.
North Syracuse, N. Y.—

the V-shaped contemporary—
a different design for a corner lot

Attractive appearance on both streets of a corner lot, while conforming to set-back rules and preserving rear privacy was the incentive for this V-shaped contemporary house in North Syracuse, New York. R. M. Catlin, Builder, Inc., built it in its Memory Lane tract where all other homes are erected to order.

Construction is frame conventional, with W truss roof and poured concrete foundation. All windows are Pella double-glazed and screened. Interior walls are half-inch drywall or red gum paneling; latter is also used for kitchen cabinets.

Other features include M-H Moduflow control of gas forced air heat, GE remote control wiring, 30 feet of valance lighting in living room, 16 feet of plug-in strip in kitchen, jalousie door to patio, built-in Chambers range and oven, built-in birch bookcases and writing desk.
ARKANSAS SOFT PINE

Satin-like Interior Trim

Crossett supplies this superior woodwork in A. I. A.—approved contours and standard patterns which, through quantity production, give you the advantage of fine quality at important cost saving over custom millwork. Arkansas Soft Pine's soft texture, light weight and freedom from pitch work easily to close detail, patterns matching exactly at mitres.

Seasoned to mandatory moisture content, it doesn't split, shrink or swell. Thus stabilized, the wood absorbs primers evenly, holding paint or enamel finishes uniformly smooth, free from raised grain...qualities that safeguard lasting good appearance.

FOR BUILT-INS AND STAIR WORK
Matching the guild-craft refinement of its satin-like trim and mouldings, are Crossett's related Arkansas Soft Pine products for interior built-ins, stair work and the like, all available at your local lumber dealer's, and identified by these trade-marks. For further information, address:

CROSSETT LUMBER COMPANY
A DIVISION OF THE CROSSETT COMPANY
CROSSETT, ARKANSAS

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full equipment, extras go with this rambler

A generous complement of equipment and many luxury-type extras were built into this $29,900 66-foot rambler at Fridley Village, Minn., by Carlson-LaVine, Inc., of Minneapolis.

Living room has 96 sq. ft. fireplace stone wall flooded by valance lighting. Dwarf partition between living and dining rooms is topped by planters. Kitchen has Formica on steel counter tops, two-tone cabinets and seven pieces of equipment. Bathroom has Roman brick wall, ceramic tile floor. Walnut-paneled study has built-in desk and shelves, plus acoustical ceiling.

A second large fireplace is in the basement, also a half-bath, shop space and large area for recreation room. Radio controls operate 16-foot garage door. Lot is fully landscaped.
NOW

"Century" NU-GRAIN
SIDING IS
SILICONE-TREATED

the most weather-resistant, dirt-resistant asbestos-cement siding ever offered by K&M!

The water resistance of the Silicone-treated "Century" NU-GRAIN Shingles seems unbelievable. It causes water to "ball up" instantly and roll right off. Tests have shown its astounding resistance to sunlight, industrial fumes, ice and snow and below freezing temperatures.

Silicones are an invisible agent which cannot dissolve in water. They penetrate deeply and leave no surface film to peel off or wear away. Water-borne dirt, which can cause streaks under window sills and around other trim does not readily gain a foothold to mar the natural beauty of the shingles.

"Century" NU-GRAIN Shingles are as permanent as stone itself. They will not burn, rot or corrode and never need paint for protection. The distinctive NU-GRAIN shades—green, brown, gray and whitetone—and the realistic wood-grain pattern are designed for a lifetime.

"Century" Shingles are sold by more than 700 distributors. Ask the K&M distributor near you about new Silicone-treated "Century" siding or write to us for complete information.

There are six "Century" Shingles now Silicone-treated. In style # 56: (straight butt line) NU-GRAIN green, brown, whitetone and gray (illustrated); also Shell White with cypress graining. In style # 57: Shell White with cypress graining and wavy butt line.

KEASBEY & MATTISON
COMPANY • AMBLER • PENNSYLVANIA
America's first maker of asbestos-cement shingles

MAY 1954
Spacemaker Homes, Inc., built this model last year in Indian Hills addition, Fort Wayne, Ind., furnished it and then proceeded with a year's production of 43 similar houses, selling all before completion.

Real sales aid was a plot plan of the complete proposed street with \( \frac{1}{10} \)-inch scale front elevation of each home placed to show site, exterior finish, colors.

Buyers got floor panel radiant heat, mercury light switches, 18-inch maple chopping block with counter top, seeded lawns, 25 shrubs. The model, on an 80x130 corner, was priced at $18,400.

**BRAND NAME PRODUCTS USED**

- American-Standard bath fixtures
- Architectural ceramic tile
- Bell & Gossett pump
- Carbin door hardware
- Fiberglas insulation
- Fries roofing
- General Motors radiant heat coil tubing
- Hackmeister asphalt tile
- Kewanee-Ross boiler
- Kitchen Maid cabinets
- Libby-Owens-Ford Thermopane
- Lightcaster electric fixtures
- Maas & Wolstein Pinxteno interior paint
- Miami-Corey bath accessories, exhaust fan
- Minneapolis-Honeywell Moduflow controls
- O'Brien exterior paint
- Steel-Kraft vapor barrier
- Smith Permglas water heater
- U. S. Gypsum drywall
- Ware aluminum windows
- Woodall Glide-All sliding doors
In an endeavor to provide maximum space at minimum cost, the Goodwin Housing Corporation adopted this three-bedroom, two-bath house as one of three ranch styles for its large Kingston Estates development in Delaware Township, adjoining Haddonfield, N. J. At $14,250, including a fully landscaped 75x125 plot, it became an immediate hit with buyers.

Designed by Dante J. D'Anastasio, Camden architect, the house has an L-shaped center hall providing direct private access to all rooms. Built on a concrete slab, its overall dimensions are 54'2"x26 feet, including attached garage and storage area. Living-dining area extends through house. A room-wide window wall at the front overlooks a wide planting area next to the entrance.

Kitchen, ceramic-tiled bathrooms and utility room are grouped in the rear. Space is left in utility room for future addition of air conditioning.
Beautifies Screen Doors...

PROTECTS THEM, TOO!

FITS-ALL NO. 1—Instantly adjustable to all screen doors. Accordion-like action permits expansion from 16" to 30¾" in width between stiles and from 40½" to 30¾" high. Squared up size is 30¾" x 30¾". Packed 12 to carton—screws furnished. Made of Alacrome—silver-satin finish.

FITS-ALL NO. 2—For doors with divided sections. Each side adjusts from 13" wide and 19¾" high to 14½" wide and 17½" high. Will not rust or tarnish. Packed 12 pairs to carton.

FITS-ALL NO. 3—For lower section of door with cross-bar. Fully adjustable from 14" wide and 32½" high between stiles to 25" wide and 25" high between stiles. Silver-satin Alacrome finish. Packed 12 to carton.

FITS-ALL NO. 4—For upper section of doors. Adjusts from 19½" wide and 34" high between stiles to 33½" wide and 20¾" high between stiles. Will not rust or tarnish. Packed 12 to carton.

FITS-ALL NO. 7—Adjusts from 18" wide to 32" high between stiles to 24½" wide to 27" high. Squares up at 26" x 26". Packed 12 to carton.

ORDER TODAY! Your order will be shipped same day received!

MACKLANBURG-DUNCAN CO.
OKLAHOMA CITY, OKLAHOMA
FITS-ALL Adjustable Screen Door GRILLES
America’s Most Complete Line!

FITS-ALL NO. $6—Easily installed and fully adjustable. Made of Alacrome with silvery-satin finish—will not rust or tarnish. Packed in individual carton.

FITS-ALL NO. FS—Fits full-size panel. Adjustable from 22" to 30" wide and from 73" to 55" high between stiles. Packed 6 to carton.

Nu-WAY—Interlaced ribs form strong protection for screen. Fits 28" to 33", 36" to 39", and 32" to 40" doors. Easily installed on doors or as window guards.

My-GARD—Interlaced ribs form strong protection for screen. Fits 28" to 33", 36" to 39", and 32" to 40" doors. Easily installed on doors or as window guards.

Nu-WAY PUSH GRILLE—4" high, made of silvery-satin Alacrome. 32" fits openings from 24" to 26" wide and 36" fits between stiles from 28" to 30". Packed 12 to carton.

Nu-WAY DELUXE PUSH GRILLE—For aluminum or wood doors. 6" high, made for 32" or 36" doors. Silvery-satin finish, will not rust or tarnish! Packed 12 to carton.

Nu-WAY SUPER PUSH GRILLE—Made especially for combination doors—wood or metal—16" high for 32", 36", and 38" openings. 28" to 30", 36" to 38", and 38" to 40", insert panels and 26" wide and 36" fits Silvery-satin finish. Packed 12 to carton.

Nu-Art
GRILLE ORNAMENTS
Attaches to nearly all screen door grilles. Made of cast aluminum with colorful outlining. Comes in individual envelope with instructions, clamps and bolts.

Nu-Art Ornamental Aluminum—Ideal for trivets and other decorative uses. Comes 16" wide and 3" high—easily fitted. Silvery-satin finish will not rust or tarnish. Packed in individual display carton.

Fits-All Monogram
Customer chooses initials or numbers from your stock and mounts on black disc. Packed 2 discs to envelope with screws and fasteners. Attractive, yet inexpensive!

Brand New!
FITS-ALL
GRILLE MONOGRAM
YOUR INITIAL GOES HERE LIKE THIS
Ponderosa Pine’s "Big Time"

POST

promotion

is Your Opportunity in '54

This year, Ponderosa Pine Woodwork steps into the "big time" with full-page advertising in The SATURDAY EVENING POST.

Millions of families from coast to coast will learn why Ponderosa Pine doors, windows and cabinets are the mark of a better-built, distinctive home.

This giant promotional effort provides a substantial profit opportunity for merchant builders. First—because this nationwide acceptance of Ponderosa Pine as top-quality material can speed the sale of homes in which it is used. Second—because Ponderosa Pine stock woodwork, available in a wide range of styles and designs, enables the builder to avoid monotony in home design and to satisfy the home owners' demand for pleasing variety.

It will pay you to make Ponderosa Pine woodwork your partner in 1954!

THESE ARE MEMBERS OF AND CONTRIBUTORS TO PONDEROSA PINE WOODWORK

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Western Pine Association
Davenport, Iowa—

contemporary unit has double-duty gallery

An eight-foot-wide free-standing closet combines with a double duty gallery to make up an interesting contemporary plan in this model built in Davenport, Iowa, by the Dugan & Rauch Construction Company. The closet forms an entry hall and a dining area between living room and kitchen-utility, giving each section a suggestion of privacy even though the ceiling over all sections is virtually unbroken.

In normal usage, the gallery lives up to its name. But when a Foldoor partition is opened, it becomes a laundry area adjoining the kitchen. Its equipment includes Westinghouse washer and dryer and Calcinator gas incinerator. G. B. Cox was the architect.

Built on a concrete slab, the house has radiant panel heat. Cork tile flooring starts in the hall and extends through the bedroom wing. The living room is carpeted and linoleum tile covers kitchen and gallery floors. Price tag of $25,250 included $3,300 lot and $1,000 worth of landscaping.
Milwaukee tries a different approach to the 'three-flat'

Second floor plan, at top of page, shows two efficiency apartments, almost identical except that short public hall and chimney take some space away from rear unit. First floor plan, directly above, indicates one front entrance serves all three suites which helps strengthen illusion that building is a one-family house.

Two views of an efficiency suite living room-bedroom. Position of several heavy furniture pieces emphasizes spaciousness.

It looks like a private dwelling; it costs about the same as a duplex in the same area (around $27,000 exclusive of land), but it brings in the rent of a three-family building, which it actually is.

Leslie Markovich, secretary of Pioneer Builders, Inc., of Milwaukee, had an idea several months ago to build three-suite houses for income purposes, has just completed two like that shown on this page. A brick veneer two-story building, it has a conventional two-bedroom flat downstairs, designed for owner-occupancy. Two efficiency suites upstairs have Norge ranges, Frigidaire refrigerators and Waste-King disposers.

In the present Milwaukee market, Markovich points out that if the upper story were finished like the lower level, the second suite would bring about $115 monthly rental. However, he reports the two efficiencies could be rented for about $80 per month each. Cost of heating these units, based on heat loss estimate, is about $120 per year or $10 a month.

The building has three water heaters, three electric meters and one forced air oil heating system, so the owner must furnish only heat and water.
Milcor Metal Lath and Plaster provide the advantages of fire-safety, permanence, lasting beauty

And you get the greatest flexibility to carry out the architect’s design

There’s just no substitute for the strength and beauty of metal lath and plaster. This unbeatable combination provides permanence, fire-resistance, lightweight and rigidity. That’s why so many architects specify it.

Milcor Metal Lath can be formed to the most complex contours and faithfully expresses the modern architect’s conception of interior design. Where plans call for enclosed heating, ventilating, plumbing or air conditioning equipment, or for indirect lighting, you can’t beat Milcor Metal Lath and plaster.

Today, there’s a renewed appreciation of plaster interiors and an increasing demand for them. That’s why it pays to use Milcor Metal Lath in the homes you build.

Give home and building owners the finest type of wall surface there is — give them plaster on a network of steel. And in letting sub-contracts for plastering, specify Milcor Metal Lath, from the industry’s most complete line.

For further information on Milcor Metal Lath, write for a copy of Catalog 253.
We've got a One-Track mind!

...and we're Proud of it

Here at TEMCO, INC., we have a one-track mind. We eat, sleep and think and live in terms of gas fuel exclusively. Our total manufacturing and research facilities are devoted without reservation to the improvement of our gas appliances and to the progress of the industry as a whole.

We are completely happy in this single-mindedness. We had faith in the gas industry over thirty years ago. We retain that faith, even in the face of requests to manufacture appliances using other fuels. We are gas specialists now. We expect to remain gas specialists, to continue our undivided loyalty to the gas industry.

But loyalty is a two-way street. If the gas industry is to hold its own and continue to grow consumer-wise, it must take steps to inject new vigor and hard-hitting, doorbell ringing salesmanship into the business of selling gas appliances. It must, furthermore, go all out to encourage and present a united front with those manufacturers, like TEMCO, INC., who believe strongly enough in the future of the industry to invest their total corporate energies and capital in it.

Gas HAS GOT IT! Temco BUILDS IT... Best

TEMCO Inc.
NASHVILLE 9, TENNESSEE
BUILDER OF OVER 1,250,000 GAS APPLIANCES

We've still got a one track mind

This is an advertisement which we ran over a year ago. Since that time we have had much favorable comment from builders who agree with our theory of specialization. We are reprinting this ad by way of calling attention to the fact that our total manufacturing and research facilities continue to be devoted to the improvement of Temco gas wall heaters, floor furnaces, heaters and clothes dryers which go into the houses you build.
CHECK THE LOW, LOW COST
OF THE NEW FLEXIVIEW

Now, Andersen brings you even lower over-all cost per square foot with the new Flexiview ... low cost brought about through a fixed opening's savings on screen and hardware. Glazed with Andersen Double Insulating Glass, it offers an economical solution to the double glazing problem.

Flexiview units combine with either fixed or ventilating Flexivent windows to form windowwalls in endless variety. They make possible the picture window combinations that complete the versatile Flexivent line.

The Flexivent line, already a builder favorite for its low installation cost coupled with high quality, is now even more versatile, an even greater window value!

For specification data see your millwork dealer, Sweet's Light Construction File, or write Andersen Corporation. Windowwalls sold by established millwork dealers throughout the United States including the West Coast.
Andersen Corporation
Announces 2 Product Improvements
For the Versatile FLEXIVENT Window

The new
FLEXIVIEW
Window
Picture Window Partner to the FLEXIVENT

Roto Lock Operator
New Underscreen Operator for the FLEXIVENT
The new Andersen Roto Lock Underscreen Operator is designed for use with awning or casement installation. The centrally located rotogear, dual-arm operator provides positive control, tight corner closing, self locking. Can be easily installed on existing Flexivents. Special pine stop furnished with each operator. Special screen available in aluminum frame only.
FLEXIVENT

NEW TABLES OF SIZES SHOW
BIG SELECTIONS AVAILABLE

3 SASH OPERATIONS
FROM JUST ONE UNIT!

HOPPER POSITION. Sash swing inward. Extremely easy to clean—
easy to operate. Provides better control of ventilation.

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CASEMENT POSITION. Installed on end, sash swing outward to provide
an excellent low cost casement window.

Andersen Welded Insulating Glass optional
for all Flexivent and Flexiview windows!
Insulating Glass ends handling and washing
of storm sash, gives homeowner insulation of
double glazing year 'round.
Coefficient of heat transmission is .675
BTU under standard conditions compared to 1.13 for single glass.

Easy to operate! Operation is easy and simple.
Friction hardware will hold sash in any open position.
In awning or casement arrangements, just
swing screen inward and push sash out. In hopper
position, just pull the sash inward.

New Snap Lock available for Flexivents. Specially
made for use with hopper vent units installed as
transom or clerestory windows, or in any other
close-to-ceiling locations. New Snap Type Sash
Lock can be easily operated with any standard
make window pull.
94.9% of Lockheed’s 50,000 employees are enrolled in the Payroll Savings Plan

ROBERT E. GROSS
President, Lockheed Aircraft Corporation
National Chairman, 1953 Aircraft Industry Payroll Savings Drive

“A man’s personal economic security is the sum of his own diligent effort, a financially sound government and a systematic savings plan. He has the earnings and he has the government that can protect the individual. However, human nature being what it is, not everyone maintains a systematic plan of savings. So here is a plan designed to help the employee—the Payroll Savings Plan, whereby his company will regularly invest a part of his earnings (he specifies the amount) in United States Savings Bonds, America’s safest form of investment. We at Lockheed have endorsed and encouraged this plan because we know what it does to assure security—both individual and national.”

Lockheed Aircraft Corporation recently conducted a person-to-person canvass that put a Payroll Savings Application Blank in the hands of every employee of Lockheed’s eleven plants in Southern California. At the conclusion of this one-week campaign, 36,419 of the 38,037 employees—95.7%—had signed up on the Payroll Savings Plan. Three of the eleven plants achieved 100% enrollment.

Lockheed’s 95.7% in the Southern California plants is the highest employee participation of any company or group of this size this year. The previous national record in the aviation industry—92%—was set by Lockheed’s Georgia Division in April, 1953. Of Lockheed’s total payroll—50,000 men and women—94.9% are building “... security—both individual and national” by systematic investment in U.S. Savings Bonds.

45,000 companies operate Payroll Savings Plans. In many of these companies employee participation ranges from 60% to 80%; in some, it is even higher. On the basis of Payroll Savings Records, it is safe to estimate that 60% or more of the personnel of a company will join the Payroll Savings Plan—

— if the many personal benefits of the Payroll Savings Plan are properly presented to them by management.

— if they are shown how their monthly investment in Savings Bonds contributes to national stability by adding to our reservoir of future purchasing power

—$35.5 billion—the cash value of outstanding Series E Bonds—the kind purchased by Payroll Savers.

Your State Director, U.S. Treasury Department, is ready to help you build a 60%, 70% or 80% Payroll Savings Plan. He’ll explain how easy it is to conduct a simple person-to-person canvass and will furnish all the printed matter, posters, etc. Phone, wire or write today to Savings Bond Division, U.S. Treasury Department, Suite 700, Washington Building, Washington, D.C.
This is a typical Swanson kitchen. He furnishes the wiring for Electric Ranges, allowing his clients to make their own choice of range. In all but two of the last 37 homes Mr. Swanson has built, they chose to be modern . . . cook electrically!

The secret that really sells houses

When customers look for a house that’s a home, they examine its features most carefully. That’s why the kind of range in the kitchen is so important. It tends to be a key to quality for the house as a whole. When home buyers see an Electric Range, they realize that here is cooking equipment at its best, that it means economy and ease of operation, a clean kitchen as well as a cool one. Instinctively they feel that the rest of the house must also have the best of everything. They’re well on the way to being sold!

Builders of homes in every price bracket, in all parts of the country, are taking advantage of the Electric Range as a selling feature. Are you?

More builders every day are installing

ELECTRIC RANGES

Mr. C. Harry Swanson, builder of this South Bend, Indiana house says, "Every single house I build is wired for an Electric Range. That is my own preference, and experience has proved that by and large my clientele agrees with me. If a client is doubtful, I urge him to go electric. Then I know he’ll be satisfied. It’s the safe way."

ELECTRIC RANGE SECTION
National Electrical Manufacturers Association
155 East 44th Street, New York 17, N. Y.

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MAY 1954
Tiered design with a broad expanse of windows makes 380 Madison Avenue a splendid sample of the "new look" that's sweeping across Manhattan.

A typical example, too, of advanced architectural thinking lies in the choice of Eljer plumbing fixtures throughout!

Eljer offers architect and builder these advantages:

1 Eljer is constantly working in the design and development of fixtures for public buildings, hospitals, hotels, schools and prisons. Eljer has a great record in these demanding fields.

2 Eljer manufactures a comprehensive line of cast-iron, formed steel and vitreous china plumbing fixtures plus top-quality brass fittings. Eljer can serve all your needs for all four.

See your Eljer distributor for specifications and facts on all advantages or write Eljer Co., Box 192, Ford City, Pa.

Eljer, the only name you need to know in plumbing fixtures
Hollyday Out; White House Announces Probe of FHA

Resignation of Commissioner Guy T. O. Hollyday and seizure of all Federal Housing Administration files, both in Washington and in the field offices, has marked the beginning of an open investigation into Title I and Section 608 activities of the FHA.

The surprise move was announced April 12 at the White House, according to Housing and Home Finance Administrator Albert M. Cole, home owners and the government have been fleeced of millions of dollars by “serious irregularities and abuses.”

The following day, the White House announced that Norman P. Mason of North Chelmsford, Mass., had been appointed FHA acting commissioner. Mason, a former president of the National Retail Lumber Dealers Association, is a director of the United States Chamber of Commerce.

A two-pronged investigation, by the Department of Justice and the HHFA, will be conducted. William F. McKenna, Los Angeles attorney, and Lester Condon, former chief investigator of the House government operations committee, will direct the HHFA activity.

Cole said FHA “has obviously suffered from a progressive laxity which is incompatible with good government.”

Regarding the prompt resignation of Hollyday, a former president of the Mortgage Bankers Association of America, Cole termed it a move to step aside so others could investigate. He said Hollyday might be responsible for some of the FHA troubles because “he was aware of the situation and did not act.”

Department of Justice entry into the case, through the Federal Bureau of Investigation, will be to make an intensive search of “possible criminal violations and the initiation of criminal prosecutions where necessary.”

Cole said the inquiry was begun after several weeks of conferences with Department of Justice officials. He declined to predict what prosecutions may result.

Only a month ago, Hollyday had announced FHA had cost the government nothing, having repaid all $65,500,000 advanced to set up insurance programs, plus $20,350,000 in interest at 2½ per cent.

Investigation of large-scale rental housing projects (Section 608) has revealed 251 cases, according to Cole, where FHA insured mortgages greatly exceeded the cost of such projects. This permitted sponsors of the work, he said, to pocket “windfalls” of more than $75,000,000.

Cole ordered withdrawal of an acceptance of resignation submitted by Clyde L. Powell, assistant FHA commissioner for rental housing, adding that he wanted to retain Powell until the inquiry determines “whether he is personally responsible for what I deem very negligent operation of the program.” Powell, who has headed the rental housing division since it was organized in 1936, had announced he would leave the agency in mid-April to become associated with a large-scale New York City housing developer.

Other top FHA officials will be affected by the sweeping investigation.
FOR BUILDERS

INTERCHANGEABLE
and Junior
QUIETTE
SWITCHES

NOW OFFERS

WITH
SCREWLESS
WIRE-LOCK
TERMINALS

WIRE-LOCK TERMINALS SAVE TIME and MONEY!

EASY TO WIRE

Both the JUNIOR and the INTERCHANGEABLE QUIETTE SWITCHES are equipped with Arrow-Hart's screwless WIRE-LOCK terminals to speed up your jobs and save you time and money. Just strip off insulation to the length shown on the gage, insert the conductor into the terminal hole in the back of the switch... and that's all. The wire is securely locked in for a positive electrical and strong mechanical connection.

EASY TO RELEASE

RELEASE IS EASY WITH YOUR "KEY TO PROFIT"

The "Key To Profit" or a small screwdriver depresses the clamp spring and unlocks the conductor for quick release. No time-consuming looping of heavy wires, no splicing, no soldering or taping.
The small, compact INTERCHANGEABLE QUIETTE SWITCH saves time, material, money. Screwless WIRE-LOCK terminals cut installation time, eliminate looping of wires. A special line feed thru shunt in single pole models means no extra wires needed; soldering, splicing and taping eliminated. It's rated at 277 volts to handle highly inductive load characteristics of fluorescent lighting jobs.

NO NEED TO DERATE THIS INTERCHANGEABLE SWITCH that gives quiet, mechanical operation.

- Single or Double Pole, 3-Way or 4-Way
- Brown or Ivorylite
- Continuous Operation in any Position
- Positive Electrical Connections
- Quick Easy Wiring - Easy Wire Release

- No Mercury or other fluids
- Silver Alloy Contacts
- Strong Mechanical Connections
- Takes No. 14 or No. 12 Wire
- Underwriters' Laboratories Approved

The JUNIOR QUIETTE SWITCH for residential use in homes — and motels — is designed for users and contractors. Each job is more profitable because each job goes faster. Compactness gives more working room; WIRE-LOCK terminals and box screws supported in base plate by fibre washers save installation time. Your customers will like the quiet operation of the JUNIOR QUIETTE SWITCH and the "plateau" handle design that gives beauty to their homes and keeps out dust by fitting snugly into wallplate opening.

A ground feed thru shunt in single pole models saves you splicing, soldering and taping.

THE ARROW-HART & HEGEMAN ELECTRIC CO.
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Please send me the following:

□ "NEW QUIETTE SWITCH" Folder.

NAME ____________________________
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COMPANY _______________________
CO. ADDRESS _____________________
CITY ___________________ ZONE ______ STATE ________
House Passed Housing Bill Before FHA Inquiry Delayed Senate Action

The 1954 omnibus housing bill moved closer to final approval last month. This was its status when the FHA “blow-up” delayed Senate action:

1. The House passed its version of the legislation on April 2 by a vote of 352 to 36.

2. The Senate Banking Committee completed hearings on a similar bill in mid-April, and began reading the measure for Senate action. Debate on the bill was expected to begin around May 15.

3. Amendments tacked on by the House seemed sure to be changed in the Senate. This would throw the legislation into a joint conference later on, delaying its final passage.

One major change made by the House in approving the housing bill was to strike out all of “Title II”—the title which would have bestowed upon the President discretionary power to control interest rates, down payments and mortgage terms.

The change was applauded by home builders. NAHB President Richard G. Hughes, when he testified on the legislation, urged that proposed changes in down payments and mortgage terms be made effective at once “instead of being left to the President’s discretion.”

FHA Terms out of Date

Credit terms now available on homes insured by FHA are “10 years out of date,” Hughes declared. He said many families that need three and four-bedroom homes can’t get them, even though the home building industry stands ready to produce 2,000,000 new and “new-conditioned” homes annually.

An attempt was made on the House floor to add authority to contract for 35,000 new public housing units next year, but the move was defeated. This may be changed in the Senate, which in the past has been more favorably disposed toward public housing.

Lower Down Payments

Other sections of the House-approved bill provide for lower FHA down payments. The House adopted an amendment to establish down payments at the rate of 95 per cent of $10,000, plus 75 per cent of the excess, instead of 95 per cent of $8,000, and 75 per cent of the excess.

On this basis, the possible down payment on a $10,000 FHA loan would be $500; $1,000 on a $12,000 loan, and $2,500 on an $18,000 loan. A $3,000 down payment would apply on the maximum loan of $20,000.

One-Year Warranty

The House rejected a proposal for continuing the present one-for-one plan of FNMA. In another move, an amendment was adopted which would impose, after July 1, a one-year mandatory warranty on one and two-family houses built with FHA and VA assistance.

House action on the housing bill still is not final because the Senate may make numerous changes. In that case, a conference committee representing the House and Senate will have to be appointed to iron out differences.

‘Don’t Jump the Gun!’

Meanwhile, NAHB has advised its members that they should not make plans to use the more liberal down payment and other provisions of the legislation “until we know that they will actually go into effect.”

During Senate Banking Committee hearings, Senator Homer Capehart of Indiana, chairman, said he might call a special conference of housing, banking and other groups with conflicting views in an effort at compromise.

Bowser Succeeds Mack As FHA ‘Underwriter’

Charles A. Bowser, a home builder in Lansing, Mich., for the past eight years, has been named director of underwriting for FHA. He succeeds Curt C. Mack, who resigned in March to enter private industry.

Bowser, 44, is past president of the Michigan Association of Home Build-

Charles A. Bowser

ers and past president of the Lansing Home Builders Association. He has worked with Michigan State College in setting up educational programs for the light construction industry and has been a member of an advisory committee at the college for five years.

The new director of underwriting was to begin his duties with FHA on April 26.

Mack, who served as assistant FHA commissioner in charge of underwriting, began his work with the agency in 1938. He directed all mortgage insurance underwriting activities of FHA.

‘Most Comprehensive and Imaginative’

J. E. Drew, chairman of judges, awarding the American Public Relations Association’s silver anvil trophy in New York to Conrad “Pat” Harness (right), public relations director of the National Association of Home Builders. NAHB was cited for having “developed by far the most comprehensive and imaginative public relations program in the trade association field”
AS HOME BUYERS become more exacting in their demands...builders must be able to deliver greater values.

With Kaustine fully automatic oil fired "Counter-Flo" furnaces you can offer your prospects a top quality heating plant at a cost that increases your profit margin.

You can also deliver extra living space as these compact units operate efficiently in a 3½ square foot area. Combine this feature with extremely quiet operation and you have the ideal furnace for closet installation in small homes.

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Kaustine QUALITY COSTS LESS

There is a Kaustine Furnace or Winter Air Conditioner for every type of home.
Veterans Buying More Costly Houses, Says VA

Fewer low-price homes are being purchased by veterans, according to figures contained in the Veterans' Administration annual report, made public recently.

In the fiscal year 1953, about 40 per cent of the homes purchased were under $10,000. Only two years earlier, 70 per cent of the homes purchased were in this price bracket. Inflation no doubt caused some of the change.

Figures contained in the VA report gave this breakdown on prices which veterans paid for housing over the past three years:

<table>
<thead>
<tr>
<th>Per-cent of total closed during fiscal year—</th>
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<tbody>
<tr>
<td>Range</td>
</tr>
<tr>
<td>1953</td>
</tr>
<tr>
<td>Less than $8,000</td>
</tr>
<tr>
<td>$8,000 to $9,999</td>
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<tr>
<td>$10,000 to $11,999</td>
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<tr>
<td>$12,000 and over</td>
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More recent figures confirm the trend. In February of this year, only about 30 per cent of homes purchased by veterans were under $10,000. About 40 per cent were in the above-$12,000 class.

Meanwhile, the extent to which Korea veterans are entering the housing market is shown by VA. Since mid-1952, when the VA loan-guarantee program was extended to include them, about 45,000 have obtained VA-guaranteed home loans.

Law Changes

Congress again has entered the VA's direct home loan program. The House passed and sent to the Senate a bill to extend the direct loan authority for another year—to June 30, 1955. Senate approval is expected. The new measure authorizes VA to use $25,000,000 per quarter for direct housing loans. The agency, which has made about 45,000 such loans since 1950, limits them to veterans in "outlying areas."

Elsewhere in the legislative picture, T. B. King, the VA loan guaranty officer, has recommended that Congress approve a plan to help veterans finance improvements and alterations in their homes. His proposal would permit veterans who have used only a portion of their total loan guarantee privileges to employ the remainder as needed for changes and repairs.

Getting sound new construction methods and materials into actual use is one of the real problems confronting the light construction industry. In the past, the delay between the time a new method or a new product has been introduced and tested and the time it gains general acceptance has been entirely too long.

As a result, a high percentage of the new construction and modernization work in the housing field today is being done with almost exactly the same materials and methods which were used 20 and 30 years ago. This is true of both large-scale and small-scale building.

Lethargy and the shackles of tradition are partly responsible for the adherence to the costly methods of the 1920's, but another reason is the difficulty of presenting and explaining new techniques to the host of individuals who put up and modernize the nation's housing supply.

The "National Retail Lumber Dealers Exposition" which NRLDA is conducting next October in New York City is an important step toward getting new ideas in light construction better known and understood. Through the use of action-type exhibits, dealers, builders, and the general public will be given a clear-cut, step-by-step understanding of modern construction methods and of the varied uses of today's improved building products.

The NRLDA exposition is ideal for this purpose. The part which retail lumber dealers have played in expanding and improving the nation's housing and in increasing the efficiency of the smaller builder has too long been obscured by the numerically spectacular output of the larger metropolitan home builder.

The outstanding part which lumber dealers play in providing new housing is shown by government figures which reveal that more than 50 per cent of all new housing is constructed by individuals or concerns that build fewer than ten new units a year.

Most of those homes originate in the offices of retail lumber dealers who provide plans or advice on planning, arrange for the financing, help select materials, advise on economical construction methods and arrange for construction services. In many instances, dealers act as builder or contractor, sometimes through a separate construction organization, whether the homes are being custom built or are put up on speculation.

Moreover, virtually all of the vast volume of residential repair and modernization work originates with the dealer and, in a rapidly growing percentage of instances, is performed by him or under his supervision and control.

Thus, as the largest factor in the home building and modernizing industry, the retail lumber industry is in position to exercise a tremendous influence on the kind and number of new homes built and on home improvements.

By featuring the latest techniques in construction and modernization, NRLDA's exposition will enable dealers to give the public even better service. Parking Industry Joins Rush to Key City Sites

As increased traffic congestion requires passenger automobile owners to leave their cars farther from their downtown destinations, the area from which a parking lot will pull patronage faces expansion, according to a recent study made by Hendon & Co., Birmingham, Ala.

Providing parking facilities for downtown workers and shoppers has built up to a $3 billion industry, competing with other businesses for key locations in central business districts, states the Urban Land Institute, Washington, D.C., in a new study just published.

Changing patterns of downtown street traffic, including the increasing number of one-way streets, and the competition of municipal governments, are problems confronting those who plan new facilities.

Plan Changing Procedure Streamlined by FHA

Local FHA officers now have a working basis to establish valuations on "extras," which means builders will no longer have to "re-work" their applications if a buyer insists on changing a basic plan.

In its letter No. 1416 entitled "structural and equipment changes to basic plans," issued late in March, FHA provided local officers with a firm understanding of its value on extra items without reprocessing.
Your Profit Starts With the First Cut!

... and FREE TRIAL Guarantees it!...

MADE BY THE ORIGINATORS!
Clipper made the World's FIRST Masonry Saw nearly 20 years ago... still makes the World's FINEST Saws and Blades for every Masonry and Concrete cutting job.

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SPECIFY GENUINE CLIPPER—and take the gamble out of Blade buying! Nearly 20 years of field and laboratory research PLUS rigid manufacturing controls is your assurance of Consistent Quality in every Genuine Clipper Blade. A complete range of specifications for low cost, faster cuts in all types of Masonry Materials, Asphalt and Concrete.

Clipper "Wet" or "Dry" Abrasive Blades
Clipper Diamond Blades
Clipper Break-Resistant (CBR) Blades
Buy Them By The Case for Greater Savings!

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FREE TRIAL
Your ONLY Guarantee of Complete Satisfaction—Actual on-the-job test!
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sleys Sheldon Coleman, President of The Coleman Company

Lower prices—an improved and ex-
panded Blend-Air cooling-heating line
—greater selling support to help you
sell homes faster in 1954

Prices are lower—though costs are
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substantially to give you bedrock prices.
A real investment in your success—and
your profit.

Our line is deeper, more diversifed
than ever. From space heater to complete
year-round air conditioning, there's a Cole-
man unit that meets the requirements of
every size and type of home you build. The
addition of new horizontal furnaces and
new self-contained and remote residential
type cooling units, as well as commercial
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Coleman engineering improves each
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cation gives Coleman products top billing
in customer acceptance. Coleman's con-
tinuous program of Product Improvement
means Profit Improvement for you.

Strong national advertising clinches
home-buyer acceptance. A consistent
year-round program in national magazines
and other media pre-conditions home-
buyer acceptance of Coleman in your area.
A Coleman Blend-Air in a home you build
is a plus with your prospects!

The manufacturer and the builder that get the business
must “deliver” the goods. Now Coleman delivers the full line,
the individual product variety, the improved features and
the appealing low prices that enable you to offer your home
prospects the best value in heating or cooling on the
market. When you install a Coleman system in a house,
you offer guaranteed performance and bonus features!
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Coleman Blend-Air® is 5 years and 150,000 homes old!
NOW year-round air conditioning with exclusive features!

New improvements! Low 1954 prices!
A new standard in cooling and heating!

GREATER FLEXIBILITY TO FIT ANY SPECIFICATIONS

Now 14 year-round heating-cooling systems! For residential and commercial application, cooling capacities from 2 to 5 tons. 3 new self-contained units, including the most compact 5-ton unit on the market. Give twice as much positive humidity removal as ordinary systems. Quieter in operation because condensing unit may be installed in remote location.

Now 3 models Water Misers (compressor-condenser)!
Two, 3 and 5 ton capacities. They install anywhere—in garage, for instance. Coleman Water Misers cut cooling water costs 97%, electricity 25%, eliminate cooling tower problems. Water Misers operate more economically, with less noise, and are more accessible for service.

Three new horizontal furnaces! A total of 18 furnace models now in the Coleman line. Horizontals are designed for space-saving applications, and are rated at 85,000, 100,000 and 140,000 BTU input. Greater flexibility of manifold and control locations for ease of installation. All Coleman furnaces have long-life burners and combustion chambers.

New Blenders! Ceiling Blenders direct air flow to outside walls and windows for better perimeter cooling and heating. Ideal for kitchens, bathrooms, etc., or to supplement outlets in large rooms. Install with minimum cutting, eliminate redecorating expense in old homes. They install quickly, easily. Adjustable Concealed Blenders fit neatly in standard walls, behind studs. Cabinet Blenders are ideal for installations in existing homes.

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Comfort Costs So Little with Coleman®

America's Leader in Home Heating and Air Conditioning

MAY 1954
Forecast Need for 2,000,000 New and Reconditioned Homes Annually

The popular notion that 1,000,000 new homes per year are about all that the American economy can absorb has been overthrown by some hard facts developed during the recent Congressional hearings on the 1954 housing bill. Those hearings demonstrated convincingly that the American economy can absorb a far larger number of new units annually than was heretofore thought possible.

Statistics presented to the Congressional committees, covering population growth, family formations, consumer spending power and the state of our housing inventory, showed that the so-called "norm" of 1,000,000 new units annually is far too low. At that rate, we could not even maintain our present housing standards; instead of progressing, we would fall still farther behind. The plain fact is that for the next ten years our industry must produce an annual average of 1,400,000 new homes and must recondition 600,000 existing homes each year if it is to be ready to meet the housing emergency that will develop in the 1960's when new family formations are expected to reach record heights.

There are three basic reasons for setting our sights on this target of 2,000,000 new and "new-conditioned" homes: people need more housing; they want to own their own homes, and they have the earning power to pay for them.

In spite of the record-breaking production of the post-war years, the actual need for housing is still on the rise. To begin with, there is a bedrock need for close to 800,000 units annually just to keep pace with new household formations. Another 300,000 are required for normal replacement of obsolescent housing and homes that are lost through natural disasters, and to maintain a reasonable vacancy rate. Finally, there is a need for at least 300,000 new units a year to raise our over-all housing standards at least as rapidly as our general living standards are rising. Since an estimated 24,000,000 housing units in the United States today are at least 30 years old, compared with only 11,000,000 in 1930, a figure of 600,000 "new-conditioned" homes annually would seem a minimum level.

Almost as important as the need is the fact that recent improvements in the attractiveness, comfort and value of new housing have stirred a tremendous popular desire for home ownership and have created a strong urge in owners of older homes to buy new ones. For the first time in our modern history, home owners in America outnumber families who rent their living quarters, and this mass shift is certain to be a big factor in the housing market at least during the next decade.

As to the public's ability to pay for better housing, Government statistics show that the share of the average family's spending on housing, in relation to other expenditures, has dropped more than 21 per cent since 1929. Cash income per family, measured in 1953 dollars, has risen 40 per cent since 1929, but the value per occupied housing unit has fallen 30 per cent. In all, the Government figures indicate that some 11,000,000 families in the middle incomes brackets—having disposable cash incomes of $4,000 to $7,500 a year—are living below the housing standards attained by comparable income groups in 1929.

The industry's new goals are essential to the progress and well-being of the entire nation. And they are clearly attainable if the hoped-for cooperation of Government, home builders and mortgage lenders is forthcoming.
A horizontal furnace with appliance styling which will sweep the residential market. A deluxe unit heater suitable for use in offices and exclusive stores where unit heaters have never before been accepted. And it's all the same unit — the versatile Reznor PAC.

The PAC is AGA approved for use as a central heater in any type of duct system. For compactness and efficiency, you can't find a horizontal furnace which will beat it. For appearance, you can't find one which will come close. Yet it's priced no higher than less satisfactory units.

Without ducts, the PAC is a handsomely-styled unit heater which will fit well into the most exclusive establishment. And because it is so quiet and so clean — the PAC includes a built-in filter unit — you'll be glad to recommend it for such installations.

The PAC is available in 75, 100 and 125 thousand BTU models. For complete details see the Reznor catalog in Sweet's Architectural File or write to the Reznor Manufacturing Co., 42 Union Street, Mercer, Pa., and ask for Bulletin GNP-52.

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**Leco-Lon**

Now... America's largest-selling magnetic latch at this amazingly low price! Positive, lifetime power... modern, trouble-free design... priced to produce steady, high-volume sales, satisfied customers. On every count, Leco-Latch is right for you, whether you're selling or building! It's the catch that never misses.

**CONTRACTORS**— Write today for descriptive literature and the name of your nearest distributor.

**DEALERS**— Ask your distributor about the sensational Leco-Latch INTRODUCTORY PACK with FREE counter merchandising display.

**DISTRIBUTORS**— Write for Leco-Latch sample, literature and discount information.

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**MAGNETIC Latch**

FOR WOOD OR METAL CABINETS

only 49¢

Now... America's largest-selling magnetic latch at this amazingly low price! Positive, lifetime power... modern, trouble-free design... priced to produce steady, high-volume sales, satisfied customers. On every count, Leco-Latch is right for you, whether you're selling or building! It's the catch that never misses.

**CONTRACTORS**— Write today for descriptive literature and the name of your nearest distributor.

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**DISTRIBUTORS**— Write for Leco-Latch sample, literature and discount information.

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OF SUPER-TOUGH NYLON

only 12¢

The newest and greatest development in low-cost cupboard and cabinet latches! Leco-Lon is formed of rugged Nylon, is virtually indestructible. In laboratory tests, latch has been open and shut well over 100,000 times without wear or adjustment. Leco-Lon Latches can be dyed permanently to any desired color in a few minutes.

**COLORFUL display carton**


**Write for FREE LECO-LON sample and LITERATURE!**

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MAY 1954
Our customers want the best possible value for their housing dollar. Good plaster is indicative of quality construction throughout—seems to mean as much as a "sterling" stamp on a piece of silverware. The use of plaster has been a big factor in creating an overwhelming demand for our Hoffman Homes.

Samuel Hoffman, President, F&S Construction Co.

"Powerful Sales Arguments"

"Customers like the wide choice of decorative possibilities offered by plaster and the redecorating flexibility it affords them.

"Through the use of modern plastering techniques and efficient scheduling we've found that the cost of lath and plaster construction compares favorably with other wall and ceiling finishing methods. We, like our customers, are sold on plaster for real economy in homes, no matter what the price bracket."

Cal Levey, Project Mgr. F&S Construction Co.
-one of our best salesmen  
for $7500 homes

NOW...Plastering is Better than Ever!

This Emblem of Certified Craftsmanship symbolizes higher standards of job performance and responsibility. It has been developed by the National Bureau for Lathing and Plastering, an organization of lathing and plastering contractors and craftsmen.

Certified Craftsmanship means that job performance and responsibility will comply with the Code of Standard Practices for Lathing and Plastering, prepared by the National Bureau and subscribed to by scores of local chapters throughout the country.

This Pledge of Performance

is your written and signed assurance that the lathing and plastering on specific jobs will be in compliance with this newly adopted Code. It is a written commitment to work schedules, job cooperation, work of craftsmanship calibre and nationally recognized standards of quality. It is yours for the asking from lathing and plastering contractors adhering to the Code of Standard Practices for Lathing and Plastering.

We suggest a thorough reading of the Code of Standard Practices which appears on the back of every pledge. Ask your lathing and plastering contractor for a copy.

Associated Manufacturers of Lathing and Plastering Materials
520 N. Michigan Avenue, Chicago 11, Illinois
We've never seen so much enthusiasm as the low-cost Corbin Guardian cylindrical lock has stirred up in the trade... and we've been in the builders' hardware business for a long, long time!

You'll see these locks in a lot of places... for dealers have ordered more mounted samples than we've ever been asked to supply for any lock. But don't stop with seeing them! Try low-cost Guardian locks. Find out these money-saving facts for yourself!

P.F. CORBIN Division, The American Hardware Corporation, New Britain, Connecticut

The Guardian is engineered and manufactured specifically for low-priced homes. It fills a definite need in that field. It's priced low, but looks beautiful. It's easy to install in minutes, provides real pin-tumbler security for years. Made in 4 functions for every small-home need.

No. 680 Boring Jig for Corbin Guardian Cylindrical Lock saves time... insures a perfect installation job. Mortising tool for latch fronts, and boring bits also available.

The Corbin "Defender" is medium-priced; supplied with standard or long back-sets, standard or King-Size roses, for fine homes, offices, motels, stores. EXCLUSIVE "VELVET-GLIDE" ACTION. Solid brass, bronze or aluminum exterior parts; rust-resistant interior parts. Fast, foolproof installation. Corbin pin-tumbler security.
ON and OFF the RECORD

THE FIGHT against slums and neighborhood decay gains momentum almost daily. City after city has one or more organizations that is deadly serious about getting rid of blighted areas, and instituting programs of conservation.

ALBERT M. COLE, HHFA Administrator, has said the urban renewal part of the new housing bill is of profound significance to responsible leaders and citizens in every American city.

SAID COLE recently, "Slums are the product of neglect by landlords, by tenants, and by all of us who make up the communities in which slums exist. But above all, they are the product of neglect by our city governments."

THERE WILL be little or no argument with that statement.

WORKING QUIETLY but very effectively while the new housing bill is being discussed, and while cities concern themselves, is Yates Cook, carrying on from where he left off last fall in New Orleans.

NO ONE NEED expect that soon after the new housing bill is passed cities all over the land will suddenly take on new faces. Clearing slums and arresting decay are both long jobs that will require a lot of public education and a lot of new thinking on the part of city governments.

BUT THE JOBS are under way, and five years should see dramatic changes in urban housing standards.

"AUSTERE" FORMS in architecture are on their way out, is the prediction of Clair Fitchy, A.I.A. president. In a recent address he forecast a swing to the "more graceful, expressive forms as exemplified by curved mouldings and even sculpture, where appropriate."

IN ANOTHER RECENT prediction, T. H. Robsjohn-Gibbings startled the furniture industry when he stated that "modern architecture and modern furniture is of today a dying fashion... will be replaced by furniture and homes that are highly individual, created by highly individual designers and architects."

ARE THESE THE opening guns in a move to abandon modern design? A year from now we'll know.

NO DEPRESSION in sight, according to Dr. Emerson P. Schmidt, director of economic research of the Chamber of Commerce.

"BUILT - IN STABILIZERS," says Schmidt, helped prevent the decline in 1949 from becoming serious. We had nothing like them in 1930."

HIGHWAYS PLAY an ever increasing part in the development of land for home building. As cities and peripheral suburbs are built up solidly, home builders must seek land in presently open country. A major consideration is highway transportation to work centers.

THAT THE HIGHWAY system is inadequate for present traffic is well known. What the condition will be as more people occupy sub-suburban areas can only be conjectured. Certainly, if something is not done soon traffic will be intolerably snarled.

THE A.G.C. at its recent convention passed a resolution recommending that federal government recognize its responsibility by increasing federal-aid returns to the states of not less than 900 million dollars annually.

THE RESOLUTION urged that there be no diversion to other purposes of tax funds collected from highway users by any unit of the government.

IT IS IMPORTANT that A.G.C. be backed in its recommendations. They are in the public interest, and if highway development is allowed to lag, seekers of new homes will be penalized.

(Continued on page 58)
Ever talk to a carpenter who uses a Porter-Cable Saw? Do it sometime—he'll gladly explain the practical benefits of quality tool design.

He'll tell you, for example, that a Porter-Cable Saw feels natural. That it's easy to guide—doesn't twist in the work—doesn't strain his wrist. He'll tell you, too, that he's had his Porter-Cable a mighty long time and wouldn't part with it at any price, unless he could get another.

Every Porter-Cable Tool is inspected 100%. That means thorough examination of every bearing, motor, switch, casting, etc. Each tool is guaranteed against defects in workmanship and materials.

Porter-Cable
Quality Electric Tools.

When you want a quality saw, see your Porter-Cable dealer. Seven models to choose from. Shown here is Model A6 (2" cut)—only $65.00. For name of nearest dealer consult your phone book... or write to factory.
**"SHOW-HOUSE" features MOE Light**

in the May 1st issue of

**The Saturday Evening POST**

**Inspiration-Lighting**

by **MOE Light**

THE FIRST AND ONLY LIGHTING LINE TO BE FEATURED IN A FULL COLOR DOUBLE PAGE SPREAD IN THE POST "SHOW-HOUSE"

"SHOW-HOUSE," the authoritative home planning section of the Saturday Evening Post will feature and recommend Inspiration-Lighting by Moe Light in a double page, full color spread in its May 1st edition.

Send the coupon for "Your Home and Inspiration-Lighting"...a 52 page book lavishly illustrated in full color. Technical data, specifications, suggested solutions, pictures of the whole line, beautiful room settings...everything to help you sell is included in this powerful selling tool.

Hundreds...even thousands of your prospects will read this ad—many will send for the "Show-House" plans. Each plan specifies Inspiration-Lighting by Moe Light exclusively.

No other advertisement exceeds the readership of the "Show-House" ads among the 10,105,793 Post readers. This is your golden opportunity to profit by a really outstanding lighting promotion!

*(a combination of general, localized and accent lighting)*

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MOE LIGHT, Dept. AB-5
Fort Atkinson, Wisconsin

I am enclosing $1.00 for your new book "Your Home and Inspiration-Lighting." If I am not completely satisfied, I can return it to Moe Light within 10 days and receive a full refund.

Name
Address
City Zone State

MAY 1954
the reasons are simple...

Design & Engineering
Panaview aluminum sliding doors and windows have been designed by A. Grossman... and engineered by men who thoroughly understand operation and installation... 100% weather-stripped for any climate and all weather conditions... with many features over all other sliding doors and windows.

Economy
Panaview has proven to progressive builders and contractors an actual saving over other types of doors and windows as well as other makes of sliding doors and windows.

Special note to builders: Panaview aluminum sliding doors and windows may well be the difference between the sale of that house... and no sale!

Distributors: Some territories still available

PANAVIEW
13434 Raymer Street, North Hollywood, California

On and Off the Record
(Continued from page 55)

NOW THAT EVERYTHING in American political and economic life is being scrutinized for possible modernization and streamlining, it seems appropriate to suggest that FHA manuals come in for some study.

THese manuals have grown into bulky volumes, so complex in many instances that it is doubtful if anyone knows exactly what they contain.

IT IS NATURAL that this should have happened. FHA is relatively new, and as new problems were met, the solution was the typical one.

THAT IS, find an answer, and create a new section or clause for the manual. That's what happens to the by-laws of most organizations, until ultimately these by-laws are such a conglomerate mass of conflicting or inconclusive rules that no one can proceed under them with safety.

MAnuals originally set up as guides have now become rules, and they are so bulky and spelled out in so much detail that it is probable that even the people who were forced to expand them cannot understand them.

WE RECOMMEND that before the new FHA management does anything else it take time out for study and simplification of the guides it will have to work with.

CONGRESSMAN SHEEHAN (11th Illinois) recently registered decisive objection to the proposed UN Covenant on Human Rights because it fails to recognize property ownership as a human right.

SAID SHEEHAN, “Insofar as we are by treaty a member of UN, this failure to recognize the right to own private property as a human right contains far-reaching and dangerous implications... It is needless to comment on the socialistic implications of this covenant, because property would then be a political right and not a private right...”

WE ENDORSE the Congressman’s statement and attitude, and recommend that home builders do so also, and so advise their Congressmen.
THOMASON Flush Doors
Give You a Choice of

(or more)

Beautiful Face Veneers

...but only ONE high quality!

In residential, institutional, industrial or commercial structures... interior or exterior door design is important.

THOMASON Flush Doors add more eye-appeal and blend pleasingly with architectural features.

Make THOMASON Flush Doors a part of your planning. From the finest quality of foreign and domestic woods, you can choose a face veneer to suit your needs.

JUST LOOK AT THIS CHOICE OF FACE VENEERS

Philippine Mahogany, African Mahogany, any Genuine Honduras Mahogany, Walnut, Oak, Birch, Knotty Pine, Gum, or any face veneer desired. In addition, THOMASON plastic-faced flush doors are available in all domestic and foreign wood grain plastics, as well as in decorative plastics.

Remember: keep design in mind... buy from the THOMASON line.

THOMASON FLUSH DOORS
THOMASON PLYWOOD CORPORATION
Fayetteville • North Carolina
6 WAYS to vary a basic house

This 960-square-foot floor plan is the only one used in a 159-house subdivision in San Bernardino, California. Every house is offered at $38,550. Lots average 60 feet wide. Variations are won by reversing the floor plan, turning it on the lot and by nimble changes in the position of windows and exterior doors. Carports and roofs are also varied, and completely fenced backyards give a final note of individuality to low-cost houses with a very common denominator.

The houses are of frame and stucco on slab foundations. Most roofs are built up but some use asphalt shingles. Finish walls are Sheetrock, as are most ceilings, except where strips of insulation board, 10 inches by 6 feet, are used. Finish floors are asphalt tile except in living rooms where wood parquet is used. Other features: all slab doors, dual wall furnace, metal casement windows for bedrooms, wood frame picture windows for living rooms.
Fences along fronts are varied in type from house to house, but enclosure is completed in every case with this design using three pieces of 1x8 board applied horizontally, then vertical 1-inch board in random widths, and a 1x10 applied horizontally at top. The fence is 6 feet high.

Two of the elevations: Top one is for Plan No. 1, the other is for Plan No. 5.
Specify KENFLEX when you want a moderate-priced vinyl tile floor

KENFLEX provides specifiers with a low-cost opportunity to add the saleable advantages of vinyl flooring to every home. Rooms as charming and practical as the kitchen shown, are what prospects look for...and the amazing durability of KENFLEX gives an added sales point because, even years later, it means easier, quicker resale.

Specifications and Technical Data

**INSTALLATION:** Over any smooth, firm interior surface: wood, plywood, radiant heated concrete slab, concrete in contact with the earth—on or below grade.

**THICKNESSES:** Laboratory and in-use tests have proven the wear-resistance and durability of vinyl flooring. Consequently, Standard Gauge (1/16") is recommended for normal residential and commercial uses. Where traffic will be severe, 1/8" KenFlex is suggested.

**SIZES:** Standard tile size is 9" x 9"...also available are 9" x 9" decorative ThemeTile inserts, and 1" x 24" Feature Strip in four solid colors.

Your clients would want KenFlex even if it cost much more than it actually does! KenFlex gives every advantage of higher-priced floors...can be installed where so-called "luxury" floors are impractical. KenFlex is durable vinyl-asbestos...easily outwearing other types of resilient floors of the same thickness. And, KenFlex is easy to clean...no matter what greases, oils, alcohols, alkalies, dyes or household acids are spilled on it. Waxing is not required...except to add additional luster to the brilliant colors.

Approximate Installed Prices (per sq. ft.)

<table>
<thead>
<tr>
<th></th>
<th>Standard (1/16&quot;)</th>
<th>1/8&quot; Gauge</th>
</tr>
</thead>
<tbody>
<tr>
<td>KENFLEX all colors</td>
<td>40¢</td>
<td>65¢</td>
</tr>
</tbody>
</table>

KenFlex is available in 15 co-ordinated colors, all of which are marbleized. Costs shown are based on a minimum area of 1,000 sq. ft. over cement underfloor.

Samples and Technical Literature available on request from any of the Kentile, Inc. offices listed below. Or, contact the nearest Kentile Flooring Contractor. He's listed under FLOORS in the Classified Telephone Directory.
Builder Chooses American Kitchens for Vast San Manuel Project

WHAT'S IMPORTANT IN CHOOSING A KITCHEN?

To every builder... the kitchen's price is important. But more important is selecting a kitchen with the most easy to recognize high quality features that make prospects stop... look... BUY! American Kitchens cost no more... but offer far more in important house selling features as shown in this "Showdown Chart." That's why the Del E. Webb Construction Co., Phoenix, Arizona, is using American Kitchens in over 1000 new homes at San Manuel, Arizona. Budget priced... 1 to 4 bedrooms and averaging only $8500.00... yet American Kitchens lend luxury at low cost. Let us quote on your next kitchen job... 1 or 1000... and prove how high quality, low cost American Kitchens sell your homes faster.

Check these top competition-beating features.

American Kitchens

COMPETITOR #1

COMPETITOR #2

COMPETITOR #3

COMPETITOR #4

American Kitchens Division
AVCO Manufacturing Corp.
Connersville, Ind., Dept. 48-54

☐ I'd like to have "no obligation" quotation on my next kitchens.
☐ Would like literature and complete information.

Name ____________________________________________
Address __________________________________________
City ______________________________________________
State ____________________________________________

American Kitchens
SELL YOUR HOMES FASTER

MAY 1954

63
Since even the small homes you build will have one or more telephones, and since most homeowners want concealed telephone wiring, isn't it good practice to have conduit for telephone wires built into all your new homes?

Your Bell Telephone Company will be glad to help you work out economical conduit installations. Just call your nearest Business Office.
Now! 7 Gold Bond Chroma-Tex Siding Shingle Colors!

You'll be amazed to see how much easier it is to turn your prospects into customers when you show them homes sided with these beautiful Gold Bond Asbestos Shingles.

People love the seven distinctive new colors—like Holiday Blue, above—and Seafoam Green, Pheasant Brown, Twilight Gray, Dusty Coral, Mellow Ivory and Poplar Green. They're especially pleased when they learn that exclusive SURFASEAL protects these colors from weather, dirt, and grime. The beauty's locked in! They're fireproof—made of asbestos and cement—and never need painting for preservation.

And an important sales plus is the famous Good Housekeeping Guarantee Seal that means so much to your customers.

The man-hours you'll save on every house sided with Gold Bond Chroma-Tex Shingles will pay you in real profits. These shingles handle easier, go up quicker and cut smoother and faster. There's little waste of time or materials.

Start making building savings and faster sales on your houses. Write Dept. AB-54 for actual samples and complete details today!
This duplex unit resembles a single family dwelling; is particularly suited for scattered lots in built up areas. The plan has three bedrooms in each living unit.

This plan has three bedrooms in one living unit, one in the other. It finds favor on the selling market where in-laws live with the owner, or for retirement income housing.
these duplexes find a ready market

Are builders overlooking the advantages of duplex construction? Lex Marsh of Charlotte, North Carolina, who has been building double living units almost exclusively for the past eight years, believes they are from both an investment and sale standpoint.

A builder of duplexes has these options, says Marsh.
1. He can sell buildings to buyers who, as owner occupants, desire or require rental income to offset a portion of the housing cost.
2. Sell buildings to small or large investors.
3. Keep the buildings as either short or long term investments.

Separate Financing Gives Flexibility

This type of market flexibility is possible only if each building is separately financed. The individual loan keeps the builder's total investment more fluid: gives him the opportunity to sell quickly if the need arises. Individual financing also simplifies the sale of one or more buildings to small investors, to a tenant or other buyer. This type of liquidation is easier than selling a big package to a large investor.

March does point out, however, that large investors are more interested in duplexes today than they were a few years ago, and some have been known to solicit loans. In any event, financing of each building provides far greater market flexibility for the builder, no matter how many duplex buildings he contemplates, declares Marsh.

Duplex units financed under FHA Title 207 require 20 per cent equity; 30 to 35 per cent under other types of financing. For builder ownership, the land value often covers the FHA equity requirement.

Duplex Rentals, Management

A compromise between apartments and higher cost single family units, duplex units are good rental properties. Marsh states. As such, they command premium rates—5 per cent more than comparable apartment building units.

Rental procedure for Marsh's duplexes gives preference to prospective tenants who sign a year's lease. He requires a lease when renting new units. Maintenance amounts to 5 per cent of the yearly rental.

Marsh employs full time maintenance personnel in his larger projects; suggests to builders who contemplate small projects of 8 or 10 units that a tenant do the maintenance as part payment of rent.

Duplex Sales

The investment angle is a strong sales tool in the merchandising of double living units. Buyers like the idea of living in one unit; renting the other and reducing (Continued on page 68)
take a good look at **PONDEROSA PINE**

one of 10 woods from the **WESTERN PINE region**

Straight, close and uniform-grained, lightweight, light-colored, workable, nailable, paintable, Ponderosa Pine is the pick o' the pines! Suited for all residential and light construction use — for fine paneling, woodwork, windows and doors — for furniture and specialty cuttings.

Ponderosa Pine comes in 3 select, 5 common, 4 dimension, 4 factory grades. You can order it in straight or mixed cars—together with the other woods of the Western Pine region—from most Western Pine Association member mills!

**the Western Pines**

**the Associated Woods**

get the facts to help you sell **PONDEROSA PINE**

Write for the FREE illustrated booklet to \[WESTERN PINE ASSOCIATION\]

Yeon Bldg., Portland 4, Oregon

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**duplexes** (Continued from page 67)

This is another fast selling plan of three bedrooms in one unit, two in the other.

their monthly carrying obligations. Marsh emphasizes that buyers can qualify for larger mortgages (25 to 30 per cent) because rental income is taken into account for qualification purposes.

Typical cases drawn from builder Marsh's files substantiate the strong selling points for duplexes. For example: a G.I. paid $1,200 down on a duplex. His mortgage payment is $78 per month including taxes and insurance. The rental income of the second living unit is $80 per month, so the veteran is living in a new home with virtually no "out of pocket" expense.

Another case goes like this: a business woman invested $3,000 in a duplex. She rents both units and receives $140 per month. Her FHA mortgage payment, including taxes and insurance, is $82 per month. This leaves her $58 per month, or a 23.2 per cent return on her original investment before taxes and other miscellaneous expenses.

**BRAND NAME PRODUCTS USED**

- Certainteed shingles and wallboard
- Coleman furnaces and wall heaters
- Crawford garage door
- Dufant paint
- Formica counter tops
- G-E hot water heater
- Lawson bath cabinet
- Metal Art windows
- Richmond plumbing fixtures
- Radix doors
- Rustwin hardware
- U. S. Gypsum sheathing

**AMERICAN BUILDER**
When Building or Remodeling
you'll find HALL-MACK is full of
GOOD IDEAS for your bathroom plans

CONCEALED TOILET PAPER HOLDER
Here's the ultimate in good taste—a recessed bracket with non-shining chrome cover that holds the roll of paper at the touch of a finger. Catalog No. 573.

DESIGNED FOR ROOMY LUXURY...
A fully-recessed, rust-proof medicine cabinet with double lights, with smooth-gliding photo frames. Catalog No. 500-100.

SHADOWS THREE-WAY CONVENIENCE
An adjustable mirror cabinet. These full-paned mirrors reflect all around dressing and make-up use. Pull-out vanity mirror makes dressing beauty easy. Catalog No. 540-990.

HALL-MACK COMPANY
1344 WEST WASHINGTON BLVD., LOS ANGELES 7, CALIF.
7455 EXCHANGE AVENUE, CHICAGO 49, ILLINOIS
1000 MAIN AVENUE, CLIFTON, NEW JERSEY

MAY 1954
The new “TwindoWeld” double-glazed insulating window, available in four standard sizes, consists of two layers of 1/8-inch-thick glass separated by a 3/16-inch air space. Edges of the two panes are electrically fused, providing a glass-to-glass seal without the use of metals or bonding materials. Air between the two panes is removed in the manufacturing process and replaced with specially dried air. Internal air pressures are adjusted to enable the insulating units to withstand atmospheric pressures for altitudes under 3,000 feet.

Unit sizes of 45 1/2 x 25 1/2 and 42 1/2 x 22 1/2 inches are available for wood window wall construction in which the glass-containing framework is made of regular 2x6-inch members. For comparable steel and aluminum sash, sizes are 36 x 24 inches and 34 1/4 x 22 11/16.

Under average conditions, the new window units will reduce the amount of heat transfer by nearly one-half of the normal amount transferred through an equivalent area of single-glazed windows. Heat loss is thus reduced during cold months and heat gain is cut down during the air-conditioning period. TwindoWeld is also stated to minimize condensation problems, reducing the tendency for interior glass fogging during winter.
Here's why this special inlaid linoleum is perfect for Carl Koch's space-stretching design:

The exciting principle of the TECHBUILT house is that you can buy as much space as you'll ever need for as little as $10,000. Carl Koch cut a substantial slice of the building costs by turning the ground level into a warm, handsome, living floor. To do this he needed a quiet, comfortable, practical flooring... yet a flooring that would go on concrete slab. He found the perfect solution in Gold Seal Ranchtile, the only genuine inlaid linoleum developed and proved for installation on grade—with or without radiant heat. Resilient, easy to keep clean, moisture-alkali-and-grease-resistant, Ranchtile offers the Gold Seal Guarantee... satisfaction or your money back. Specify Ranchtile for your next on-grade project.
blending of styles captures sales

**BUILDERS:**
Randolph Parks and Associates, Sacramento, Calif.

**DESIGNER:**
Randolph Parks

**SQUARE FOOT AREAS:**
- House and garage (full area) .... 1,551
- Room over garage (1/2 of area) .... 119
- Entrance porch (1/3 of area) .... 48

Total square foot area .... 1,718

Total cost of house on a 75x125 lot, including landscaping .... $16,950

*For computation purposes, room areas over garage and entrance porch are fractional so that their per square foot cost is in proper proportion with the house and garage.

From top to bottom, the models on opposite page are designated by the designer as the "Bel-Air," the "Provincial" and "Normandy." Interior views apply to all models. The blueprint section shows the more popular "Bel-Air" in detail: one elevation and a portion of plan of each of the other two models.

When properly styled and blended, time-honored exterior accessories—dormers, pediments, corbels, scroll work, window and door blinds—still have an appeal to the home buyer. A good example of this occurred recently in Los Altos, California, where public response led to the selling out of a 130-unit project long before completion.

Still under construction and called Park Hills Estates, the development offers a single floor plan with eight positive exterior changes, three of which are illustrated on the opposite page. The "Bel-Air" model, at top, was the most popular seller.

Exterior elements of the "Bel-Air" design—front entrance, porch and windows—are a combination of modern and traditional styling, but the over-all effect is one of complete unity. Exposed posts and beams of the porch are in harmony with side blinds and pediment of the door.

The other two models shown are designed along traditional lines with a ground-hugging look characteristic of the modern ranch house. These three models, the five not shown, and an effective color scheme produced an interesting block plan pattern that in no way resembles the "peas in the pod" look so often associated with large developments.

The basic plan is a rectangle 25 feet by 55 feet 6 inches, with a 5 by 10-foot projection for kitchen, and a 6 foot by 18 foot 6-inch extension for the garage.

Exterior architectural changes occur only in the portion of the front wall from the end of the house to the garage. Position of the windows and doors in this area also change. The accompanying blueprint section shows four elevations and floor plans of the "Bel-Air" model, and the fronts and plans of the two alternate designs.

The plan contains seven rooms, a
Fireplace flanked with book niches balances the end wall of living room, which is faced with vertical boards of random width.

bath and a half, ample closets, and attached two-car garage. A feature of the plan is an activity room adjoining kitchen, and a bedroom in the high portion of the roof area over the garage. Floor of this bedroom is eight feet above garage floor. This reduces a portion of the garage ceiling to 7 feet 6 inches, but allows an increase in height of ceiling in the bedroom above. Stair from this room leads down to entry adjoining the activity room and half bath.

A pass-thru with a wide counter provides a means of service into the activity room. This opening can be closed with louver doors when not in use. Living room has a fireplace flanked on both sides by a recessed book niche. This wall is faced with vertical wood boards of random width.

Houses are constructed of wood framing for walls, ceiling and roof, and are placed on a 6-inch thick concrete wall with bottom of footings 12 inches below grade. A series of concrete piers spaced equally within the area of the foundation support 4x6-inch wood girders. To these are secured 2x6-inch t&g oak flooring, except where asphalt tile is used. Exterior walls are sheathed and faced with either wood siding, shakes, or board and batt. Portion of front wall covered by the porch is faced with brick veneer. Roof area is covered with wood shingles. Partitions and the inside face of all exterior walls are faced with dry-wall material.

In providing a host of specialties and ample square foot living area for a reasonable sum, builder trims costs while the plans are still on the drawing board. Windows, doors and walls are pre-fitted and slipped into place. Wardrobes and kitchen cases are built in a mill. All parts of these houses are precut in a cutting yard.
FRONT ELEVATION
SCALE: 1/8" = 1'-0"

ALTERNATE FRONT ELEVATION 'A'
SCALE: 1/8" = 1'-0"

ALTERNATE FRONT ELEVATION 'B'
SCALE: 1/8" = 1'-0"
# Quantity List of Materials

For American Builder Blueprint House No. AB 207

Randolph Parks, Designer

## General Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>House — Type</td>
<td>frame and partial veneer</td>
</tr>
<tr>
<td>Over-all area including garage</td>
<td>1,551 sq. ft.</td>
</tr>
<tr>
<td>Cube</td>
<td>23,265 cu. ft.</td>
</tr>
<tr>
<td>Room over garage</td>
<td>1/3 of area</td>
</tr>
<tr>
<td>Average height taken for cube</td>
<td>15 feet</td>
</tr>
<tr>
<td>Entrance porch</td>
<td>48 sq. ft.</td>
</tr>
<tr>
<td>Note: For computation purposes, room over garage and entrance porch are fractional so that their cost per square foot will be in ratio with the house and garage.</td>
<td></td>
</tr>
</tbody>
</table>

## Excavating

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trench for foundation</td>
<td>250 lin. ft.</td>
</tr>
<tr>
<td>Chimney and column footings</td>
<td>30</td>
</tr>
<tr>
<td>Excavation for crawl space</td>
<td>37 yrs.</td>
</tr>
</tbody>
</table>

## Cement Work

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundations</td>
<td>280 cu. ft.</td>
</tr>
<tr>
<td>Concrete work</td>
<td>640 sq. ft.</td>
</tr>
<tr>
<td>Anchor bolts</td>
<td>70 — 1/2 &quot;x10&quot;</td>
</tr>
<tr>
<td>Foundation Vents</td>
<td>10 — 6&quot;x12&quot;</td>
</tr>
</tbody>
</table>

## Masonry

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls</td>
<td>150 sq. ft. — 4&quot; brick veneer</td>
</tr>
<tr>
<td>Chimney</td>
<td>110 cu. ft.</td>
</tr>
<tr>
<td>Flue lining</td>
<td>20 lin. ft. 12&quot; dia. vitra</td>
</tr>
<tr>
<td>Cap</td>
<td>brick and cement</td>
</tr>
<tr>
<td>Fireplace</td>
<td>100 cu. ft.</td>
</tr>
<tr>
<td>Throat and Damper</td>
<td></td>
</tr>
<tr>
<td>Lintels</td>
<td>4 lin. ft. 4&quot;x3&quot;</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>7.5 sq. ft. tile hearth</td>
</tr>
</tbody>
</table>

## Millwork

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows — Type</td>
<td>casement and fixed</td>
</tr>
<tr>
<td>Windows — Glazed, including trim</td>
<td></td>
</tr>
<tr>
<td>Fixed</td>
<td>2 — 16&quot;x12&quot;</td>
</tr>
<tr>
<td></td>
<td>2 — 12&quot;x12&quot;</td>
</tr>
<tr>
<td></td>
<td>1 — 18&quot;x60&quot;</td>
</tr>
<tr>
<td></td>
<td>2 — 18&quot;x78&quot;</td>
</tr>
<tr>
<td></td>
<td>1 — 18&quot;x60&quot;</td>
</tr>
<tr>
<td>Casements</td>
<td>12 — 16&quot;x34&quot;</td>
</tr>
<tr>
<td></td>
<td>8 — 22&quot;x20&quot;</td>
</tr>
<tr>
<td></td>
<td>2 — 16&quot;x48&quot;</td>
</tr>
<tr>
<td></td>
<td>4 — 12&quot;x48&quot;</td>
</tr>
<tr>
<td>Exterior doors</td>
<td>2 — 1 ft. — 2&quot;x6&quot;x8&quot;</td>
</tr>
<tr>
<td>Panel door</td>
<td>1 — 3&quot;x6&quot;</td>
</tr>
<tr>
<td>French door</td>
<td>1 — 2&quot;x6&quot;</td>
</tr>
<tr>
<td>Garage door — upward acting</td>
<td>15&quot;x7&quot;</td>
</tr>
<tr>
<td>Exterior Millwork</td>
<td></td>
</tr>
<tr>
<td>Shutters</td>
<td>4 pair</td>
</tr>
<tr>
<td>Louvers</td>
<td>2 metal</td>
</tr>
<tr>
<td>Front entrance feature</td>
<td>1</td>
</tr>
<tr>
<td>Lattice</td>
<td>1 band saw sill</td>
</tr>
<tr>
<td>Interior doors, including jams and trim</td>
<td>4 — 24&quot;x6&quot;</td>
</tr>
<tr>
<td></td>
<td>2 — 24&quot;x6&quot;</td>
</tr>
<tr>
<td></td>
<td>2 — 24&quot;x6&quot;</td>
</tr>
<tr>
<td>Sliding door</td>
<td></td>
</tr>
<tr>
<td>Special Interior doors</td>
<td>1 pair louvered doors and bar top</td>
</tr>
</tbody>
</table>

## Special Interior Millwork

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wardrobe and dressing table combination</td>
<td>1 pair</td>
</tr>
<tr>
<td>Vanity case</td>
<td>1</td>
</tr>
<tr>
<td>Linen case</td>
<td>1</td>
</tr>
<tr>
<td>Kitchen cases</td>
<td>1 set</td>
</tr>
<tr>
<td>Bookcases</td>
<td>2</td>
</tr>
</tbody>
</table>

## Carpentry

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beams and girders</td>
<td>2 — 6&quot;x6&quot;x10'</td>
</tr>
<tr>
<td></td>
<td>2 — 6&quot;x6&quot;x12'</td>
</tr>
<tr>
<td></td>
<td>2 — 6&quot;x6&quot;x14'</td>
</tr>
<tr>
<td></td>
<td>16 — 4&quot;x6&quot;x14'</td>
</tr>
<tr>
<td></td>
<td>2 — 4&quot;x6&quot;x18'</td>
</tr>
<tr>
<td>Foundations plates</td>
<td>250 lin. ft. of 2&quot;x4&quot;</td>
</tr>
<tr>
<td>Studding and plates</td>
<td>560 lin. ft. 2&quot;x4&quot; plates</td>
</tr>
<tr>
<td></td>
<td>230 pcs. 2&quot;x4&quot;x8'</td>
</tr>
<tr>
<td></td>
<td>30 — 2&quot;x4&quot;x16'</td>
</tr>
<tr>
<td></td>
<td>12 — 2&quot;x4&quot;x14'</td>
</tr>
<tr>
<td></td>
<td>12 — 2&quot;x4&quot;x12'</td>
</tr>
<tr>
<td></td>
<td>15 — 2&quot;x8&quot;24'</td>
</tr>
<tr>
<td></td>
<td>5 pcs. 2&quot;x6&quot;10'</td>
</tr>
<tr>
<td>Roof rafters</td>
<td>23 — 2&quot;x6&quot;20'</td>
</tr>
<tr>
<td></td>
<td>23 — 2&quot;x6&quot;18'</td>
</tr>
<tr>
<td></td>
<td>44 — 2&quot;x6&quot;16'</td>
</tr>
<tr>
<td></td>
<td>6 — 2&quot;x6&quot;12'</td>
</tr>
<tr>
<td></td>
<td>16 — 2&quot;x6&quot;10'</td>
</tr>
<tr>
<td></td>
<td>4 pcs. — 2&quot;x6&quot;x8'</td>
</tr>
<tr>
<td>Framing lintels</td>
<td>2 — 2&quot;x12&quot;18'</td>
</tr>
<tr>
<td></td>
<td>4 — 2&quot;x10&quot;12'</td>
</tr>
<tr>
<td></td>
<td>4 — 2&quot;x10&quot;10'</td>
</tr>
<tr>
<td>Subfloor</td>
<td>2,400 bd. ft.</td>
</tr>
<tr>
<td>Roof sheathing</td>
<td>2,600 bd. ft.</td>
</tr>
<tr>
<td>Side Wall sheathing</td>
<td>1,800 bd. ft.</td>
</tr>
<tr>
<td>Side Wall materials</td>
<td>15 squares shingles</td>
</tr>
<tr>
<td></td>
<td>70 bd. ft. wood paneling</td>
</tr>
<tr>
<td>Carpenter Stairs</td>
<td>2 Stringsers — 2&quot;x12&quot;x12&quot;</td>
</tr>
<tr>
<td></td>
<td>10 pcs. 1&quot;x8&quot;—3 1/2&quot;</td>
</tr>
<tr>
<td>Treads</td>
<td>9 pcs. stepping stock 3 1/2&quot;</td>
</tr>
<tr>
<td>Flooring — Hardwood</td>
<td>740 sq. ft.</td>
</tr>
<tr>
<td></td>
<td>170 sq. ft.</td>
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<tr>
<td>Exterior material</td>
<td>160 sq. ft. — 1x4 M&amp;B ceiling</td>
</tr>
<tr>
<td></td>
<td>250 lin. ft. 1x6&quot;</td>
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## Sheet Metal

<table>
<thead>
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<th>Description</th>
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<tbody>
<tr>
<td>Gutters</td>
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</tr>
<tr>
<td>Downspouts</td>
<td>40 lin. ft. galvanized iron</td>
</tr>
<tr>
<td>Flashing</td>
<td>at chimney only</td>
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<tr>
<td></td>
<td></td>
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<tr>
<td>Louvers</td>
<td>2 metal</td>
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## Roofing

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<tr>
<td>Type</td>
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<tr>
<td>Area</td>
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## Interior Walls

<table>
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</thead>
<tbody>
<tr>
<td>Area to be covered</td>
<td>4,700 sq. ft.</td>
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</table>

Note: This quantity list will be subject to variation depending on the common practices in various sections and municipalities of the country, the techniques of individual builders, the types of materials available locally and cost factors. The list published here is a suggested one, complete enough so that it can be used in arriving at a reasonably accurate estimate of the quantities and cost of materials that will be required to complete the structure. It was prepared by experts at the Edward Hines Lumber Co., Chicago.
can dealers meet
the challenge of direct buying?

Yes—if they are alert to the necessity of better dealer-builder relationship and service, and are doing something about it.

No—if they are content to maintain a status quo position in the building materials distribution channel.

Why has the lumber dealer's position in the distribution channel changed? Is it entirely because of direct buying or prefabrication? Or is it his failure to recognize that home building operations have been drastically altered by the event of new methods—mass production, the one-room concept made possible with the use of trusses, component fabrication and precutting. Direct buying and prefabrication are only by-products of this overhauling process.

As more and more builders turn to these new methods, the lumber dealer no longer can think in terms of supplying raw lumber, but must make available the service and materials these builders want and need. The dealer's supply operation must be revamped just as the builder has revamped his. This will require a thorough analysis of the dealer's own shop as it relates to the needs of the builders he wants to serve.

As one prominent builder put it: "If a lumber dealer just wants to sell lumber, wallboard and roofing, he is a dead duck. I can buy these things as cheaply as he does. So can other builders. The lumber dealer must perform a service."

What are some of the new dealer-builder service techniques? Three loom most prominently. They are:

**COMPONENT PARTS**—dealer fabricates and delivers window wall units, door wall units, storage units and trusses according to builder specifications.

**PACKAGE DELIVERY**—dealer supplies building material packages, sequence loaded, as specified by builder. In some areas packaged lumber is precut.

**PANELS**—dealer fabricates and delivers on the site wall panels for complete house.
the component construction

WINDOW UNIT  DOUBLE VANITORY  SLIDING DOOR PARTITION  STORAGE UNIT

SIDE WALL
It is a system of pre-engineered structural components, precision made and standardized to a 4x8-foot module. Basic components are window and door wall units, trusses and storage wall units. These components can be fabricated in a local lumber yard and delivered to the site ready for installation, much in the manner as shown by the diagrammatic on these pages.

The units speed production, cut overhead, and are said to provide more flexibility than an exterior panelization system. These components can be combined with exterior wall panels, however, but the advantage of greater flexibility is lost because the builder no longer has a wide latitude in the selection of exterior finishing materials. For example, local availability, economy and sales appeal might dictate the use of brick or concrete block.

Still another advantage is the ease with which other fabricated house components can be adapted to the system. These include, interior door wall units, kitchen and bath units, sliding door closets, built-in furniture, pre-finished wall, floor and ceiling material, mitered and splined trim.
Builder Martin L. Bartling, Jr., of Knoxville, Tennessee, one of the leaders of component construction, buys fabricated window walls, door walls, storage units and trusses from his local lumber dealer.

"We find that we pay very little more than if we build the units ourselves. In the long run we save money. We pay $50.50 for a 4-foot wide, 8-foot high storage wall from Fonde's Builders Supply in Knoxville. In large quantities, the price drops to $41.50 for each unit.

"We can build conventional dry wall finished closets for $50. Important to us, however, is the time saved by using components. We can place a storage wall unit in a matter of minutes, as compared to a couple days time using conventional methods.

"Interior door panels, for instance, come to us in 8-foot heights ready for installation. The door is hung in the jamb and the hardware installed. The unit costs $27.50 from our local dealer. If I hang the door on the job I might save $3. But I'm certain the men on the job would eat up the savings. Carpenters can hang as many as eight doors a day but frequently the production drops to three a day."

Bartling figures the lumber dealer made a $3,000 net profit on the component parts sold to him in the past year. This estimate is based on an annual production of 30
houses. To save the $3,000, Bartling would have to set up a well-equipped shop, and take care of such overhead expenses as plant, labor, handling and delivery.

“These overhead expenses would amount to more than the $3,000 profit earned by the lumber dealer,” states Bartling. “If I were to go into production and build component parts, I would have to build 200 houses a year to come out.”

The Knoxville builder has cut his overhead primarily by speeding up construction time and going to a full-scale subcontracting operation. This enables him to build more houses a year with smaller overhead. Back in 1946-47 Bartling built 50 houses a year and had an overhead of $50,000. His payroll included 35 to 40 people. Bartling reasoned that any drop in starts would cut deeply into the profits. He then started his component construction operation in an effort to curb these overhead expenses. First components used were roof trusses and storage walls, and others followed as he worked them out on paper, and then in the field.

The combination of this system and subcontracting dropped overhead from $1,000 to $300 per house. Only three carpenters are now on Bartling's payroll. He plans to continue building 25 to 30 houses a year, but he emphasizes that the component-subcontracting operation gives him enough flexibility to build one or 100 houses a year without any great fluctuation in overhead. Bartling believes this technique is particularly adaptable and workable for a small volume operator.

He is of the firm opinion that a lumber dealer must do more than just supply basic materials; that the day has arrived when he must perform a specific economic service with these same materials by delivering them at the job site as builder specified sub-assemblies.

Dealer Stuart Fonde, head of the firm that supplies the Bartling operation, already is convinced of this. He plans to increase production; supply other builders outside the immediate Knoxville area. Fonde is selling material by doing much of the builders' work. For his effort, he gets the business, will keep it, and at a fair profit.
builders pay more
but it costs less

Strange as it sounds, project builders in some areas are paying more per M for their lumber when package loaded by the dealer, but the end result is a saving to the builder. Why? There is no need for multiple handling, special storage facilities and equipment; pilferage and damage is minimized.

Builders, too, must cooperate for best results. Back filling must be done to get the lumber next to the foundation. Roads must be in so the dealer can make delivery. Of greatest importance, is the careful preparation of order lists so that sequence loading in the yard conforms exactly with erection sequence on the job.

Package delivery can be broken down into a variety of combinations depending on special requirements of the building operation being served. In the yards of Edward Hines Lumber Company, Chicago, package delivery generally is broken down into four basic loads: (1) deck; (2) framing; (3) sheathing; (4) interior.

Usually loads one, two and three are ordered at the same time and delivered to the job site on a trailer truck. Piled in sequence, the first material off the load is the first used.

As in the Hines yards, these southern California dealers sequence load, and many strap the packages.

A basic package for a 1,000 square foot house is a fair load for a truck. Two such loads can be hauled on a truck and trailer. The same truck and trailer can carry four elevation loads. The finish package depends upon the house, but a truck usually can haul several such loads.

In the Los Angeles area many small builders want their lumber delivered in packages, and most of the large dealers are prepared to give this service. For a small operation, deliveries of the three loads are spaced to suit the builder's requirements.
LOADING technique —

here's how it works

a typical Hines package load —top to bottom

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<thead>
<tr>
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<tbody>
<tr>
<td>4x8 foot sheathing*</td>
<td>exterior trim*</td>
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<tr>
<td>floor joists</td>
<td>studs with decking</td>
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<tr>
<td>2x4 plates, cripples, etc.</td>
<td>at the rear</td>
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<tr>
<td>roof sheathing</td>
<td>ceiling joists</td>
</tr>
<tr>
<td></td>
<td>roof rafters</td>
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</tbody>
</table>

* The two top items must be rehandled. If the insulated sheathing was placed in proper sequence its cushioning action might tip the load. Exterior trim is rehandled so that it will not be damaged. All other material is used in the order that it comes off the pile.

MAY 1954
still another technique — dealer fabricated wall panels

Many postwar houses have been panelized, but the use of this technique has been confined in almost all instances to large volume operations and prefabrication. Furthermore, the systems in use generally are tied to a specific house design and specific building operation. The real need was a system that would be:

1. Suitable for use by the small builder; that is, a builder who erects one to 10 or more homes a year;
2. Simple and flexible enough to be used in a variety of house plans;
3. Permit panels to be made on a mass production basis in lumber yards.

Because of its long and growing concern with the over-all problem of distribution and dealer-builder service, the Lumber Dealers Research Council provided sponsorship for development of such a system. Research was undertaken by the Small Homes Council of the University of Illinois. Results were announced recently—a wall panel system known within the industry as Lu-Re-Co.

The system meets the requirements of flexibility and suitability for small builder operations, but its practicality has not been fully explored or tested by lumber dealers.

Clarence A. Thompson, chairman of the LDRC executive committee, believes the dealer can approach it in four ways:

1. Set up a jig in the lumber yard for the production of panels. Start production as soon as a contract is made with a builder at an established price.
2. Set up a jig in the yard and precut material. Invite builders to assemble their own panels, using their own men to put them together and to deliver them to the site. A small service charge should be made for use of the jig.
3. Set up a jig in the yard. Use the regular yard crew, or augment it if necessary, to build up a backlog of panels that can be delivered to the site whenever the builder orders them.
4. Be in a position to work with the builder in any way that he would designate.

Dealer Thompson is planning to service builders with any one, or all of the methods outlined.

Principal advantage of the system is that it permits the small house builder to employ the same cost-saving methods used by the project builder. Erection time is speeded up because carpenters work with parts of the house, rather than pieces.

Precutting and pre-assembly eliminates waste; minimizes delays from unfavorable weather.

To illustrate the flexibility of the system, the Small Homes Council designed five house plans. All five plans can be easily varied in appearance. Each has at least three elevations with different roof slopes. Each can be built on a slab, over a crawl space or over a basement. Any of a number of window types and exterior finish materials can be selected. According to Small Homes Council Director, James T. Lendrum, and Rudard A. Jones, who directed the project, these five house plans are merely examples. The panels also can be used in other house plans with equal flexibility.

While the wall panels can be used with various types of roof framing, the use of roof trusses speeds up construction. This permits precutting and pre-assembling of roof parts, and also offers the economies of open-room construction.

Roof trusses span the house from outside wall to outside wall without need of load bearing interior walls. This means that when the exterior wall panels are tipped in place and the roof trusses, sheathing and covering are installed, the house is one, large, open room. This room provides an excellent area for the workmen to continue their operations. It also is possible to apply finish material to the ceiling, walls and floor with less cutting and fitting than are required when surfaces are interrupted by partitions.

Because partitions do not have to carry any of the roof weight, they can be merely dividing walls to separate the various rooms or areas of the house. In many cases the partitions also can provide storage space.
The Lu-Re-Co system

The Small Homes Council describes the major characteristics of this wall panel system in the following manner:

Wall panels consist basically of a stud-wall framework covered with a sheathing material and siding. Panels are four feet wide and eight feet high, and are tied together into a wall by a double 2x6-inch continuous header supported every four feet around the entire perimeter of the house. For economical and structural reasons, the panels are:

1. Modular to achieve economies which are possible when dimensions of the house and its parts are co-ordinated with those of building materials. The panels are multiples of the four-inch module, the accepted unit of measurement for building materials. Nearly all sheet materials are four feet in width. These materials (interior finish as well as sheathing and siding) fit the panels with a minimum of cutting. The four-foot width also is a multiple of the common stud spacing used in house construction—16 inches or 24 inches.

2. Simple in design and assembly so that the panels can be constructed without expensive equipment, and can be easily erected.

3. Flexible so that the panels are adaptable to a variety of building materials and to a variety of house designs. With a 4-foot panel, most design problems can be handled readily. A half panel, two feet wide, has been provided for use in those places where needed.

Basic panels are:

1. Vertical panels for use with all types of siding. This 4x8-foot panel has a 2x4-inch stud at each edge of the panel and one in the center. (An extra stud can be placed in the panel to give a 16-inch spacing if this is required by the building code.) Sheathing material in 4x8-foot sheets, such as 25/32-inch insulation board or 3/4-inch plywood, is recommended because diagonal bracing is not required. Plywood sheathing is required for vertical siding in order to provide a nailing base.

2. Horizontal panels for use with vertical siding only. This 4x8-foot panel also has a 2x4-inch stud at each edge. Horizontal 2x4-inch girts are placed two feet on center from top to bottom between studs. The wall can be covered with sheathing in sheet form and the vertical siding attached.

3. Panels for houses with sloped roof-ceilings. This panel is the same as the horizontal panel except that it is shorter—4 foot by 7 foot 8 inches. It has seven-foot studs.

Window panels have been designed to accommodate various types: fixed glass, awning, hopper, double-hung, casement and horizontal gliding. All windows are centered within each panel. Windows can be installed when the panels are assembled, thus eliminating another task at the site. Panels accommodate windows of different heights, principally:

1. Privacy windows for bathrooms, bedrooms and kitchens. These are large enough so that one can see out of them easily even though they are set high in the wall.

2. View windows for living and dining areas. Space is left under the window for the installation of baseboard heating units in the event these are desired.

Door openings can be centered in the door panel or set off-center to the right or left, as is required by the design of the house.

Trussed gable roof, low sloped roof with open ceiling and flat roof are adaptable to this panel system. In general, the most economical construction is obtained when the room height is eight feet and the ceiling is flat. This allows the builder, in finishing the house, to use standard sizes of wallboard, closet doors, etc.

Floor construction is conventional. In installing panels on concrete slab floors, a 2x4 should be set flush with the concrete floor in order to provide nailing space for the panels.

The illustrations at right show the several different types of panels designed to accommodate various types of siding, standard windows and doors.

MAY 1954

2' x 8'

VERTICAL PANELS

4' x 8'

HORIZONTAL PANELS

Privacy View

WINDOW PANELS

DOOR PANELS
Lu-Re-Co wall panel is assembled on jig. Panels are basically a studwall framework which is covered with sheathing material and siding.

The completed wall panel is light enough for two men to carry. Panels are four feet wide and eight feet high, multiples of the four-inch module.

Decatur builder uses Lu-Re-Co—likes it

An example of house construction using the Lu-Re-Co panel system is the current operation of J. J. Swartz Company, Decatur, Illinois. The project consists of 29 ranch-type houses selling in the price bracket of $16,000.

Packaged units are being used where possible, as well as pre-assembled wall to wall trusses and wall panels. The panels are not fabricated by or in the retail lumber yard, however, but the Clarence A. Thompson lumber outlet in Decatur is working closely with the builders. (It is an example of the fourth approach proposed by Mr. Thompson in the preceding article.)

The Swartz firm set up a jig in one of the partially completed houses. Panels are produced there and then loaded on a truck and moved to the site where needed. This method works better than setting up the jig at each house, say the builders. In this way work can carry on in spite of inclement weather.

Carl Swantz estimates that panels for one house can be assembled on the jig, transported to the building and put in place by two men in two and one-half days. This includes setting of the 2x6-inch top plate. He said that 200 man hours are saved by constructing a house with pre-assembled roof trusses and wall panels, compared to the conventional method. Approximately 30 hours of this time can be attributed to the wall panels alone, according to Swartz.
are these the Finest overhead type doors made?

Whether it's for a residential, commercial, or industrial installation, every Ro-Way overhead type door is designed, engineered and built to be the finest of its kind.

Finest in appearance—with clean, simple lines that blend well with any style of architecture, perfectly complementing the design of the structure.

Finest in construction—with mortise and tenon joints not only glued but steel doweled as well... muntins, rails and stiles squared up with precision... sections rabbeted to assure weather-tight joints... millwork both drum and hand sanded... heavy gauge steel hardware both Parkerized and painted after fabrication.


No matter how you look at Ro-Way doors, you see that finest quality is engineered right into every detail. If that's what you want, specify Ro-Way on every job.
NOW AVAILABLE for

ALL-GLASS EDGE!
SENSATIONAL!
SIMPLE!
EASY-TO-INSTALL!

 THESE VIEWS of a TwindoWeld unit clearly show its construction. In the cutaway view in the circle, note the two panes of quality 3/4" thick Pennvernon window glass, with 3/8" air space between, which are fused electrically to form a glass-to-glass sealed edge. TwindoWeld is all glass! This means long life, excellent insulating properties and extreme ease of installation.
Pittsburgh proudly presents TwinDoWeld — the first electrically fused all-glass insulating window with glass-to-glass sealed edge. It is the result of years of research and test installations in scores of homes.

Here is a unit that is of tremendous importance to every builder in the country. It fills the big demand that exists for insulating windows for the currently popular window-wall construction.

TwinDoWeld is simple in design. It's homogeneous, permanent, with an all-glass seal. It's composed of two panes of quality Pennvernon window glass (¼" thick), separated by a ⅜" air space. It is as easy to install as a single pane of glass.

Under average conditions, TwinDoWeld will reduce the amount of heat transfer by nearly one-half that normally transferred through an equivalent area of conventional single-glazed windows. This means actual savings in home heating and air conditioning costs—a potent selling point you can use with new home buyers or families interested in remodeling their present houses.

TwinDoWeld reduces condensation problems, too; there is less tendency for room side glass fogging during winter months. And the vision it permits offers greater enjoyment of the outdoors from indoors. Fact is, the comfort and health of the occupants is safeguarded the whole year through.

If you've been wondering what "plus factor" to give your homes for more and quicker sales, why not install TwinDoWeld? It will show the most, do the most, impress the most. It is a product of Pittsburgh, the most dependable name in quality glass. Ask your local Pittsburgh branch or glass jobber for complete details on this most exciting and easily handled unit—TwinDoWeld—or write direct to Pittsburgh Plate Glass Company, Room 4204, 632 Fort Duquesne Blvd., Pittsburgh 22, Pennsylvania. Do it now!

TwinDoWeld Sizes

For Wood Window-Wall
45½" x 25½"
42½" x 22½"

For Metal Window-Wall
36" x 24"
34½" x 22¼"

These sizes are commercially available at present through Pittsburgh branches and glass jobbers east of the Rocky Mountains.

*TWINWINDOW, Pittsburgh's window with built-in insulation, is available in additional sizes.

IN THIS TYPICAL INSTALLATION, the use of TwinDoWeld emphasizes to the home buyer added beauty, comfort and greater value. For TwinDoWeld increases the pleasure of viewing outdoor scenes from the inside of the home; it reduces the tendency toward frosting and fogging; eliminates the need for storm windows; provides better temperature control and sound insulation.
Build with natural Stone — because buildings constructed with natural stone, in whole or in part, sell faster, for better prices and more profit. Prospective buyers will welcome Stone. It is permanent, beautiful, economical — a sound investment for every type building.

Would you like detailed information about Stone — its variety, characteristics, uses, availability?

Write now for your free copy of the colorful Stone Catalog.
Here's what you can do with the new CURTIS SILENTITE Convertible window

More than a thousand combinations are possible with this remarkable new Silentite Convertible—one of the most useful window units ever introduced in the building field. A top-quality wood product—fully guaranteed as to materials and workmanship—the new Convertible meets every home builder's demand. No wonder it opens up new vistas of usefulness for architects and builders!

**CASEMENTS**—are surprisingly economical with this completely factory-assembled unit—basic frame with operating hardware, sash, screen and insulating light installed. Casements can be right or left swing.

**AWNING**-type windows—so popular today—are now available for even the low-cost home, thanks to the Curtis Convertible. Superior weather-tightness is assured by modern spring-leaf type weatherstripping.

**LOUVRE** units are available in five sizes with interior birch doors for use in regulating ventilation. Basic sash units come in ten sizes and are mortised for sash locks which are included. Mechanical operator with crank is optional.

**RIBBON** windows permit freedom of furniture placement—and Curtis Convertibles are ideal for such use. Sash may be stacked vertically and horizontally. All wood members completely toxic and water-repellent treated.

**WINDOW WALLS** like this are inexpensive when built with the Silentite Convertibles. These window units fit any wall construction—may be installed in any desired combination of multiples. They give a modern touch to even the smallest home.

Curtis makes a complete line of architectural woodwork and birch kitchen cabinets for homes of all types. Make your next home "all Curtis."

MAY 1954
Mr. R. P. Gerholz, builder of more than 3000 homes, says, "My Westgate Development was closed to all new innovations until I saw TEL-IN-WALL. Its simplicity of installation, coupled with Low Cost Sales Plus features, caused me to revise my specifications to include TEL-IN-WALL in bathrooms and kitchens."


The project homes in the Westgate Development are priced from $12,500 to $15,000. 800 units will be constructed in the next three to four years. The NAHB presented the Award of Merit in Neighborhood Development to Gerholz Community Homes, Inc., for Westgate Park.
New low-cost built-in with new sales plus...

**Tel-in-wall** has electric clock, lamp and 2 outlets

TEL-IN-WALL brings you an entirely new built-in with sales advantages that can't be duplicated. Its down-to-earth price makes it completely practical for new homes and remodeling jobs. As Mr. Gerholz points out, "The quality of today's homes is judged by the extra refinements that go into their construction. I believe TEL-IN-WALL answers the builder's need for such a refinement."

TEL-IN-WALL is as easy to install as an ordinary wall outlet—and what a sales plus TEL-IN-WALL adds. In one smart unit you have an accurate electric clock, a 7-watt service lamp, plus two outlets. TEL-IN-WALL is at home in the kitchen or bath, living or game room, any room in the house. Also designed for apartments, hotels, motels, hospitals and trailer coaches. Order through your electrical supply or hardware house. Telechron Department, General Electric Company, 15 Union Street, Ashland, Mass.

**In the bathroom, TEL-IN-WALL takes shower or hair dryer, and heater. Night lamp is a real safety feature.**

**INSTALLATION IS FAST, EASY AND INEXPENSIVE**

A. Attach adaptor plate to standard 4" outlet box, GE SPE15151 or equivalent.

B. Connect wires. Operates on 110 v., 60 cy. house current. Outlets rated at 15 A.

C. Mount TEL-IN-WALL. Only four screws to fasten. Movement recesses into box.

**Telechron**

MARK OF TIMING LEADERSHIP

MAY 1954
It means expansibility economy simplicity

The unpredicted rise in the nation's population over the past 10 years has naturally created a pressing need for major additions to the public school plant. What is the size of the job?

In 1953, the U.S. Office of Education counted a total enrollment of 23,229,000 in U.S. public schools—over four million more than in 1948. By 1958, according to the Office of Education's estimates, the figure will have jumped to 32,151,000—25,398,000 in elementary schools and 6,753,000 in secondary schools.

The additions and replacements of the public school plant needed to meet this situation were estimated by the Office of Education in 1950. In that year, this total need was set at 520,000 new classrooms (additional and replacements) at a cost of $14,040,000,000. Since 1950, about $2.75 billion has been spent for public school construction, leaving a net need, as of 1953, for 420,000 classrooms (including related facilities).

To follow these figures into the field and understand what they mean in terms of brick and steel, American Builder turned to the magazine's consulting architect, Walter A. Anicka of Ann Arbor, Michigan, whose outstanding series of blueprint houses will be remembered by readers of American Builder.
Builder through the years 1947-48.

In four years of concentration on building schools, mostly for rural districts, Anicka has produced 102 buildings ranging in cost from $25,000 to $1,000,000; in rooms from two to 40. The building type which he has gradually perfected to meet all aspects of the problem in a realistic way is well illustrated by the Pleasant Lake School, displayed here.

This country elementary school is located 12 miles southwest of Ann Arbor and was completed in time for the opening of the school year last fall. It is the result of four small districts getting together and consolidating as a solution to their common need for more school space. Together they launched a $125,000 bond issue out of which came the funds for the $105,000 building which Anicka proposed.

Five Guiding Principles

Anicka's approach is guided by five major considerations. First, expansibility. The plan must allow

Classrooms have clear glass in window wall on north, bi-lateral daylighting from clerestory with glare-reducing glass. Ceilings have acoustical tile. Floors are asphalt tile. Birch-trimmed chalkboard of Nuclite have and section of corkboard. Knotty pine paneling, simple birch plywood built-ins and paint in soft colors for the exposed cinder block of the walls all help to give the rooms charm and livability. Shown above is the kindergarten room.
for the adding of classrooms. In the case of Pleasant Lake, Anicka’s study of the general area indicated that the Pleasant Lake population could be expected to double in 10 years. Doubling the census of one-to-five-year-olds gave the school population in 10 years. (Another useful rule of thumb in making this calculation is to allow 1½ children per family.) Mechanical services are made the ultimate in the original building, so nothing is lost in terms of original construction when classrooms are added. Also, wherever possible, adding-on is projected at the end of a corridor, which saves on future costs.

Second, the building must be designed for the children and not to please the school board or janitor. Third, modular construction cuts down tremendously on waste and enables Anicka not only to achieve a very low figure on estimating but enables him to stay within this figure most of the time. He generally works on an 8-inch or 16-inch module.

Fourth, the construction plan must tie in with habits of local contractors. It must not present any unusual methods or materials which would require specialized supervision and new work patterns. As Anicka puts it, the rule must be, “Can any contractor with ordinary experience build it?”

Lastly (although this really comes first in the process), Anicka works up a general area study, or master plan, covering from 75 to 100 square miles and relates the proposed new school to the facts about this area. Such a study not only helps Anicka plan the best possible school in terms of actual conditions, but also gives him a fine basis for working with school boards.

Oriented so that classrooms face north for the best light, the Pleasant Lake School gets uniform daylighting by use of a clerestory above the south or inner wall of the classrooms. To scatter the rays from the southern exposure, this clerestory is filled in with Libbey-Owens-Ford’s
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<tr>
<td>Exterior fill &amp; grade</td>
<td>375.00</td>
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<tr>
<td>Concrete footings</td>
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<td>Brick &amp; block masonry</td>
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<td>Mason labor</td>
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<td>1,100.00</td>
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<tr>
<td>Septic tank &amp; field</td>
<td>2,180.00</td>
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<tr>
<td>Cut stone</td>
<td>232.00</td>
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<td>Structural steel</td>
<td>3,164.00</td>
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<td>Aluminum sash</td>
<td>2,287.00</td>
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<td>Cypress roof</td>
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<td>Roofing &amp; S. M.</td>
<td>2,399.00</td>
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<td>Grass</td>
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<td>Rough lumber</td>
<td>4,440.00</td>
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<td>Millwork</td>
<td>5,060.00</td>
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<td>Carpenter labor</td>
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<td>Hardware</td>
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<td>Blackboards</td>
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<td>Lath &amp; plaster</td>
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<td>Painting</td>
<td>2,084.00</td>
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<td>Kitchen cabinets</td>
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<td>Rough-in plumbing</td>
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<td>1,418.00</td>
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<td>Burners, etc.</td>
<td>3,178.00</td>
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<tr>
<td>Tank</td>
<td>1,285.00</td>
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<tr>
<td>Total</td>
<td>$105,926.00</td>
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</tbody>
</table>

Cost per square foot $10.00
Cost per cubic foot $.83

Multi-purpose room is used as gym, auditorium, lunchroom. Note 22-inch long span steel joists practically indestructible and which (at Pleasant Lake) cost 70 cents a square foot as compared with $2.50 for glazed tile. The periodic painting of the cinder block walls is a simple matter of decorating. The building has 20-year bonded roofing of pitch and gravel built-up.

Heating is by radiant coils in the floor, except for the multi-purpose room which has two-inch fin radiation at the base of the window wall and at the midway point up the wall of the stage. The Bryan boiler has a capacity of 810,000 Btu’s. Barber-Coleman controls are used, also Bell & Gossett controls and pumps.

In Anicka’s experience, radiant heating is very satisfactory for an all-elementary school. The cost of heating a six-room school will run about $4.50 a day. If elementary and secondary groups are combined in the same building, the heating system will need to be of the automatic fresh-air intake and heating type. Anicka uses the Herman Nelson Univent system.

MAY 1954
We proved it to Zehman &

NEW B&D 8" HEAVY-DUTY SAW
Packed with power, the new 8" Saw works and works... cuts and cuts... up to full rated load! Cuts from 0" to 21/4" deep... bevel cuts from 0° to 45°... depth of cut at 45° is 21/2".
Built-in depth-and-bevel adjustments... plus features that make the new B&D Saws the greatest ever... $96.50.

NEW B&D 9" HEAVY-DUTY SAW
Extra powerful, the new 9" Saw can handle all your heaviest jobs and deepest portable-saw cuts! Depth-of-cut from ¾" to 3¼"... bevel cuts from 0° to 45°... depth of cut at 45° is 2½". Incorporates built-in depth-and-bevel adjustments and all the other new extra B&D features! $114.50.

ALSO: New B&D 6" Adjustable Saw... $64.50 and New B&D 7" Saw... $84.50...
Both Heavy-Duty Saws with all the Features Described Above.
Wolf—we'll prove it to you!

NOW! BLACK & DECKER Saws give you every feature you want for every job you do!

Zehman & Wolf Construction Company of Cleveland, Ohio, hires as hard-hitting and hard-working a crew of carpenters as any you'll find. We felt that these men would be the best judges of saws, so we took a new B&D Heavy-Duty Saw out on the job and asked them to try it. And did they give it a workout! They made rip cuts, cross cuts, box cuts and bevel cuts with it. They hefted it for weight, tried different depths of cut, balanced it, used it right-handed, left-handed—with one hand and with two. And when they were finished, they were sold! They were sold on the power of the new B&D Saw... on its features... on the amount of work it gets through. As Carpenter Hy Weltman put it: "The new B&D Saw has a lot of power and it's easy to use. Not only is the lever on the lower guard a good safety factor, but all of B&D's new features make it a great help."

EASY-GRIP HANDLE...
POWER TO SPARE...
HUSKIER BUILD...
2-POINT SUSPENSION...
SAFETY-LIFT GUARD...
MAN-SIZE CONTROLS...

PROVE IT YOURSELF AND GET A CHANCE TO WIN $1,000.00

AT YOUR DEALER'S! See and try the great new Black & Decker Saws yourself, soon... AND GET A CHANCE TO WIN $1,000.00 at the same time! Just ask your building supply or hardware dealer to show you the new B&D Saws. Watch him demonstrate them. Try them yourself. Note their many features. Then get an official entry blank. Fill it out, following the easy directions, and leave it with your dealer. He'll do the rest... and you'll be in line for the grand prize... $1,000.00... or one of the many other cash awards. See your dealer right away quick! For dealer nearest you, see where-to-buy-it section of local phone book, under "TOOLS-ELECTRIC."

RIGHT ON THE JOB! To make the big B&D Saw Contest even easier for you to enter, we'll arrange to have the new B&D Saws brought right out to your job site, demonstrated to you, let you try them yourself! And you'll get your official contest entry blanks right then and there. To arrange for this, just fill out the handy coupon below and mail it to us today!
When it comes to saving money, you just can't beat a new Chevrolet truck. Here are two good reasons why this is true—

YOU SAVE AT THE START
In fact, your savings start the moment you close the deal for your new Chevrolet truck. That's because Chevrolet is America's lowest-priced line of trucks. And yet, no other truck at any price offers you all the new features and advantages you get in these great new Chevrolet trucks.

YOU KEEP RIGHT ON SAVING
You save on operating costs with thrifty new high-compression power... on upkeep costs with new chassis ruggedness. And you get these savings with every new Chevrolet truck—from light delivery models to heavy-duty haulers. In addition, Chevrolet trucks traditionally put you dollars ahead at trade-in time.

Aren't these the kind of savings you want in a truck? Stop in and talk it over with your Chevrolet Dealer soon... Chevrolet Division of General Motors, Detroit 2, Michigan.

MOST TRUSTWORTHY TRUCKS ON ANY JOB!


CHEVROLET ADVANCE-DESIGN TRUCK FEATURES

DUAL-SHOE PARKING BRAKE—greater holding ability on heavy-duty models. NEW RIDE CONTROL SEAT*—eliminates back-rubbing. NEW, LARGER UNIT-DESIGNED PICKUP AND PLATFORM STAKE BODIES—give increased load space. COMFORTMASTER CAB—offers greater comfort, convenience and safety. PANORAMIC WINDSHIELD—for increased driver vision. WIDE-BASE WHEELS—for increased tire mileage. BALL-GEAR STEERING—safer, safer handling. ADVANCE-DESIGN STYLING—rugged, handsome appearance.

*Optional at extra cost. Ride Control Seat is available in standard cabs only. "Jobmaster 261" engine on 2-ton models, truck Hydra-Matic transmission on ½-, ¾- and 1-ton models.

AMERICAN BUILDER
In building or remodeling architects know the easiest way to increase the charm and value of any home is “window-styling” with Bee Gee Windows. Proportioned to fit with modern architectural trends, famous Bee Gee Windows provide an authentic styling touch for any type of construction...any kind of interior. 179 styles and sizes of all-wood casement, picture and corner picture windows, skillfully styled, crafted and detailed to bring new grace and glamour to every room in your home. And you can “Clean the Outside from the Inside”,

“ribbon-styled”... long—low—beautiful! New type construction...designed to emphasize the modern lines of ranch-type and contemporary homes, with all the warmth, character and practical advantages that only wood windows provide.

**Every window available in 2 styles**

- **STYLE A**—a brilliant expanse of unobstructed glass. **STYLE B**—the glass divided to give you long horizontal lines. Choose the style that best fits your home.

---

**BROWN-GRAVES Co.**

**Get Your FREE Beegee Catalog**

Ready to Set in the Wall...Nailed in Place...Ready to Use!
The deep shadow lines of Hemlock bevel and bungalow siding accentuate the long, low lines of modern homes.

Weyerhaeuser 4-Square West Coast Hemlock paneling is clean and fresh in appearance—and requires practically no upkeep.

There are several practical reasons why more and more dealers are stocking West Coast Hemlock. This species, thriving in the Northwest timberlands, is one of America's finest and most plentiful softwoods. Throughout the nation, it has gained a front rank building position because of its remarkable physical characteristics and the wide range of uses to which it is readily adapted.

Builders using Weyerhaeuser 4-Square West Coast Hemlock bevel or bungalow siding prefer it because it is light and easy to cut and shape. It takes and holds paint well. For framing and sheathing, this lumber is strong and durable. Also, it takes nails readily—and holds them firmly.

West Coast Hemlock is known as the "Ability Wood" because of its dependable performance when employed for many uses—a few of which are framing, finish, ceiling, flooring, sheathing and siding.

These are only a few of the reasons why you can build better... at a reasonable cost... with Hemlock. Write for literature on Weyerhaeuser 4-Square West Coast Hemlock, the abundant "Ability Wood".

Weyerhaeuser 4-Square LUMBER AND SERVICES

BUILD BETTER WITH HEMLOCK: THE ABUNDANT "ABILITY WOOD"
LAVATORY-DRESSING TABLES by American-Standard will add beauty and convenience—and customer appeal—to the homes you build. Each fixture combines dressing table and storage cabinet in one compact unit. Shown here are the New Dresslyn, left; the Highlyn, left below; and the Merrilyn, at right below. The New Dresslyn and Merrilyn have genuine vitreous china lavatories . . . the Highlyn has enameled cast iron lavatory. Cabinets and lavatories come in a variety of color combinations. All units are available in straight front or kneehole models.

HEATRIM PANELS are the modern way of providing comfortable, even, convected warmth throughout an entire room. They are specifically designed for forced-circulation hot water heating. Taking the place of conventional wood baseboards, Heatrim panels save floor space, leave walls unbroken, permit greater latitude in designing and decorating. They can be installed against existing walls or recessed to the depth of the plaster. They are perfect for use under picture windows . . . are also much in demand for premium-space installations.

For further information on American-Standard products see Sweet's Light Construction File

American-Standard
Dept. AB-54, Pittsburgh 30, Pa.
Without obligation on my part, please send me literature on:

[ ] Lavatory-Dressing Tables
[ ] Heatrim Panels

Name

Firm

Address

City State
Superhighway routed through crowded residential district necessitated removing or demolishing about 300 houses. Fifty per cent were considered good enough to be moved to new site and be rehabilitated.

Moving contractor charged about $1,200 each to move house along pre-cleared route; took about two days to load house, one day more to complete move. Pictures below show house jacked up, moved off foundation, and ready for moving.

Houses that were condemned to make way for a superhighway with clover-leaf intersections are being given a new lease on life in Toledo, Ohio. The misplaced neighborhood is virtually being picked up and put down again—with some considerable improvement in the bargain.

Although many of the houses were bought and moved by individuals for their own use, Toledo builders Paul Fuller and George Schuster bought the largest number, more than 30.

Acquiring only the best of the condemned houses, the builders moved them to a subdivision of improved lots fronting on wide, tree-lined streets. They gave these houses a new concrete block foundation, heating, plumbing and wiring. They also put in new kitchens and bathrooms. A new roof and painting, both exterior and interior, completed the job.

A local savings association cooperated in the financing of these homes, but could not advance money under its charter until the foundation was in place and the house set.

a subdivision of RECONDITIONED
over the foundation by the mover. Consequently, temporary funds had to be available on the part of the buyer of the homes to cover his original cost, the building of the foundation and the moving. No part of this investment could be recovered until the house was delivered intact on the permanent site. The Veterans Administration placed an average valuation of $11,250 on these reconditioned houses; gave them a life span of 60 years.

But relocation of the houses from

(Continued on page 110)

Rehabilitated house at new site looks almost new: has a 60-year life expectancy

FULLER AND SCHUSTER PAID ABOUT:

$600 for condemned house.
1,200 to moving contractor to move house.
350 to city to use moving route.

THEN THEY ADDED THESE TO EACH HOUSE:

New basement
New General Electric gas furnace
New automatic water heater
New plumbing (copper water line)
New electrical wiring
New roof
New ribbon-strip driveway
New paint job (decorated inside and out)
New Youngstown kitchen cabinets and sink
New bathroom fixtures
New 4-foot mirror in bathroom
New 4-foot fluorescent over mirror
New location—lot 50x130 feet

THEN THEY SOLD THE HOUSES FOR ABOUT:

$11,250 with $2,000 down payment.
At new site house is moved over excavation; foundation is put in after house is placed so foundation will conform to varying dimensions of old structure

**reconditioned houses**

(Continued from page 109)

the condemned location to a new site presented problems that had to be solved before actual moving could be accomplished by Fuller and Schuster, or by a potential home owner acting in his own behalf.

The state of Ohio bought the properties from the original owners, then offered them for sale to the highest bidders. The average sale price of the condemned houses was $600.

Before moving of the houses could begin, a new site had to be selected, and this necessitated movement over a considerable distance. It was decided that one moving route should be chosen to make the operation feasible, and the area finally picked required an average move of 2½ miles.

The route was congested with railroads, electric and telephone lines. Clearance of the route required an initial investment too great for the individual buyer of one house to bear, and an unfair amount for a building firm to pay alone.

The city council of Toledo solved the problem by advancing the $17,000 necessary to clear the route, and raise power and telephone lines to a height of 30 feet. A fee of $350 per house was then charged for the privilege of using the moving route, Payment of the moving fees eventually will repay the city for its investment.

Fuller and Schuster are having no trouble selling their houses for about $11,250 each with $2,000 down. Their experience points up the possibilities of another new market for builders. The expected increase in highway improvements and slum clearance programs in the years to come will present many opportunities to buy, move and rehabilitate old, but structurally sound houses,
Announcing!

the second annual

**NAHB Acapulco Derby** *

featuring a Grand Prize 10-day Fisherman's Holiday

in Mexico for 20 Builders!

A NATIONAL HOME WEEK (Sept. 19-26) CONTEST

20 Grand Prize Regional Winners • More Than 150 Local Home Builder Association Winners • Special Handicap System for Small Builders

for Exciting

TRADE-IN HOME CONTEST

See last page...

*Sponsored by the Minneapolis-Honeywell Regulator Co. in cooperation

with the NAHB Board of Directors and Public Relations Committee.
a Home to Sell... a Plan to Sell it.

Honeywell

NO PRODUCTS TO BUY

You simply build an aggressive merchandising program climaxing in a National Home Week (Sept. 19-26) showing of your exhibit house... And submit evidence of your merchandising program in an Official Merchandising Contest Entry Kit. The contest is open to all builder-members of the NAHB (except the 20 Grand Prize Winners in the 1953 Acapulco Derby)... Just entering will make you a better merchandiser!

SEND FOR OFFICIAL ENTRY KIT Acapulco Derby registration reply cards have been mailed to all builder-members of the National Association of Home Builders. When you register for the Derby by filling out and mailing this card, you will receive an Official Entry Kit by return mail. A limited supply of these kits has also been sent to your Local Home Builder Association Executive Officer.

SMALL BUILDERS CAN WIN A special handicap system based on total estimated home sales for the year will be used in the judging. (See Official Rules Folder for complete details.) Also, you'll be competing initially, only with builders in your own local association. If you are the winner in your local contest, your kit will be forwarded to the
...Can win you a
HOLIDAY in Acapulco!

October NAHB Board of Directors meeting in New York. There it will compete with the other local contest winning entries for 20 Grand Prizes (one for each NAHB region).

BASIS OF JUDGING Contest entry material will be judged on the basis of the following five steps.

Advertising • Publicity and Public Relations • Selling Aids Special Promotions • Appeal and Livability of the Exhibit Home and Homesite

Point system of judging and all details are explained in the Official Rules Folder mailed to all builder-members of the NAHB.

Your local association contest will be judged by a three-member panel selected from prominent local citizens by your Local Home Builders Association. National contest judges will be selected by officers of the NAHB.

ACAPULCO DERBY HALL OF FAME As part of the recognition bestowed on the regional winners, they will be featured in a life-size color-portrait display in the Honeywell Hall of Fame at the 1955 NAHB Exposition.

As a Grand Prize Winner
in the Acapulco Derby...

NOVEMBER 27. You'll be flown to Dallas, Texas, assembly point for winners and hosts of the 1954 Acapulco Derby Honeywell Holiday.

NOVEMBER 28. Following a Saturday evening get-acquainted dinner and party, you'll board an American Airlines Flagship Sunday afternoon, arrive at Mexico City Sunday evening.

NOVEMBER 29. Monday you'll meet Mexico City, its history, its people, its scenery—Tuesday morning you'll fly to Acapulco, Riviera of the Americas.

NOVEMBER 30 through DECEMBER 4. Tuesday through Saturday you'll enjoy luxurious leisure—swimming, sailing, water skiing, sight-seeing, and above all, fishing (last year's winners caught more than 65 sailfish, the shortest over 8 feet long).

DECEMBER 5. Sunday morning you'll return to Mexico City, see a bullfight Sunday afternoon, leave for Dallas and home Monday, DECEMBER 6.

Ask your local executive officer to show the full color motion picture of the 1953 Holiday to your association. Winners say they had "the time of their lives"!
TRADE-IN AND NEW CONDITIONING CONTEST
for Home Builders with an eye to the future

Minneapolis-Honeywell joins the NAHB in recognizing the promise which trade-in merchandising offers the home building industry. Fulfillment of this promise, however, depends on more than merely accepting an existing home in trade. The greatest potential lies in modernizing and improving the trade-in—the new conditioning of existing homes before they are put back on the market.

Thus a Trade-in and New Conditioning Contest has been added to the 1954 Acapulco Derby to encourage the development and merchandising of workable programs as well as to recognize outstanding achievements in this direction.

ONCE YOU HAVE A TRADE-IN AND NEW CONDITIONING PROGRAM THE CONTEST IS EASY

Any builder-member of the NAHB who devises and merchandises a trade-in and new conditioning plan during the first nine months of 1954 is eligible to enter.

SEND FOR OFFICIAL ENTRY KIT simply by filling-out and mailing the Acapulco Derby Registration Reply card sent to all builder-members of the NAHB. A special Trade-in Contest Entry Kit will be sent to you by return mail. Official kits will also be available from your Local Association Executive Officer.

JUDGING WILL BE NATIONAL Your completed entry kit should include the following information and material. (See your Official Rules Folder for complete details.)

- Description of your trade-in and new conditioning plan
- Evidence of your advertising and promotion program
- Examples of publicity received

SUBMIT COMPLETED KIT to your Local Home Builder Association Executive Officer by midnight September 27. He will forward it to the October NAHB Board of Directors Meeting in New York. A special panel of judges appointed by officers of the NAHB will select the five best entries. The 5 winning builders will receive the Grand Prize Honeywell Holiday award and will accompany the 20 National Home Week Merchandising Contest winners to Acapulco.

HONEYWELL, long the leader in the field of automatic home heating controls, including Electronic Moduflow and Zone Controls, has a vital interest in the continued prosperity of the home building industry. The ACAPULCO DERBY is a means of furthering that interest by giving recognition to builders who make outstanding contributions to home design, greater enjoyment of the home, and improved methods of merchandising homes to the public.

Through the merchandising medium of Trade-Conditioning, the home building industry has both a tremendous opportunity and an obligation to help bring the bulk of existing American homes up to modern standards of comfort and livability.

R. G. HUGHES, President
NATIONAL ASSOCIATION OF HOME BUILDERS
Tough fibers bonded with natural lignin interlock in all directions—give Allwood Hardboard strength, dimensional stability, resistance to wear and hard knocks.

**Allwood HARDBOARD**

is a BETTER Building Material

Allwood's ease of handling speeds every job—saves you money, time and labor. It's perfect for interior or exterior use in homes, offices, shops, and on the farm. For walls, ceilings, partitions, built-ins, underlayment, porch decking, soffits, siding, garages and other outbuildings. All types of finish go on fast—look better on—won't chip or peel off Allwood's hard, smooth surface.

See your dealer TODAY for full information on Allwood Hardboard. If he doesn't have it, write us his name...we'll send a jobber to call on him.

**Dealers:** There's a market, ready and waiting, for Allwood Hardboard. Get set now to serve your customers with this better building material. Contact your jobber right away...or write direct.

---

Builders—try speedy, convenient and top-notch quality John Day Packaged Ponderosa Pine Trim for doors and windows. Ask your dealer about it—or write for full details.
Builders may well consider the "heart kitchen" planned by the American Heart Association and the Electric Cooking Institute, in collaboration with Dr. Margaret Austin, heart specialist. Originally planned for heart patients, its features will be welcomed by any housewife.

A "heart kitchen" is one especially designed for the woman who must get meals as easily as possible, using the least effort—not climbing, not stretching, not stooping, not lifting.

Since a heart patient must rest frequently, this kitchen is a room large enough for both work and rest. Part of the work can be done sitting down. Colors soothe, do not irritate. Lights are adequate. Tools are within easy reach. The three major ap-

Food supplies are in easy reach of mixing center at left. Sit-down cooking is possible with two electric units. Dishwashing and cleaning center follows. Dishes are stored over sink. Range center contains surface units. oven is waist high making baking, broiling visible, comfortable to watch.

is your client a heart patient?
here's a KITCHEN

appliances (range, refrigerator and sink) are so spaced that the walking distance between them is kept down to a minimum.

Planned for a woman of average height (5 feet 4 inches) with a family of four, this kitchen is so arranged that food passes logically from food storage to stove and finally to table in a smooth-running progression similar to that of an assembly line.

Five basic food preparation and planning centers are placed to save steps, put kitchen on efficient assembly-line basis.

American Builder
Adjacent refrigerator door opens toward mixing center. Lap and cutting boards slide out for ease of use when seated at 30-inch-high work area. Sliding panels in cupboard doors bring small supplies within easy reach.

DESIGNED FOR HER

Dining, resting and meal planning are done in this area. Table is near oven for easy serving. Colors are gray birch for cabinets; gray and black floor; lime green counter tops; coral for cupboard lining and for the window seat behind the table.
A centrally located spot for the telephone, with built-in table-shelf

A kitchen closet for pots and pans, with spice shelves on inside face of door. Birch plywood for the door, fir plywood for the closet.

ever thought of these?

Combination planter and storage wall for card table and chairs.
A built-in china cupboard, with plus storage, for separating dining area from kitchen. This one even includes (bottom left) a wood lift operating from basement.

Looking for eye-catching merchandising ideas for your 1954 houses? Here are several that are sure to capture the attention of your prospects. Demonstrating primarily the versatility of plywood for interior uses, these ideas, however, can provide a number of strong selling points for your house package.

A storage cabinet for head-of-stairs position. This one is of fir plywood with myrtlewood veneer (same as bannister and wall). Small door at end is for card table compartment.
add 50% greater
FIRE SAFETY
to lath and plaster ceilings

The simple addition of Keymesh galvanized reinforcing lath over gypsum lath increases the fire rating reference of a ceiling from one hour to one and one half hours, when finished with 1/2 inch of lightweight aggregate plaster.
This increased fire safety is further evidence of the exceptional value Keymesh reinforced lath and plaster adds to every building, from the low cost home to large commercial and industrial buildings. It's another reminder that Keymesh costs so little, but adds so much.

PLUS positive protection from cracking

When Keymesh lath is used, your entire ceiling and wall surface is reinforced with a vast network of multi-directional reinforcing wires, adding far more protection from cracking. This protection that stops cracks before they start, costs so little, but adds so much.

PLUS greater over-all strength

Keymesh lath helps the plasterer get a full, uniform thickness of plaster. With its open mesh, each wire is fully embedded, while serving as a gauge to assure the full 1/2" thickness of plaster specified. Full, uniform thickness assures greater over-all strength. Yes. Keymesh costs so little. Keymesh adds so much.

Recommended and used by America's leading lathing and plastering contractors.

KEYSTONE STEEL & WIRE COMPANY
PEORIA 7, ILLINOIS

KEYMESH • KEYBEAD • KEYCORNER • KEYSTONE WELDED WIRE FABRIC • KEYSTONE NAILS • TIE WIRE • KEYSTONE CLIMBABLE AND ORNAMENTAL FENCE
Here's all you do! After gypsum lath is applied, cover it with Keymesh. The exclusive reverse-twist weave makes it unroll flat; go up flat. It's so easy to apply. Then it's plastered, following customary practice. Proved through the years as a superior reinforcement for stucco, it now brings new value to lath and plaster construction.

it adds so much, it costs so little.

For highest quality at lowest cost, use the 3 KEYS TO STRONGER PLASTER

KEYMESH lath for over-all reinforcement. Made of galvanized woven wire. Especially recommended for ceiling construction.

KEYCORNER strip lath, preformed to fit snugly in corners. Lies flat when applied to joints. Galvanized to prevent rust streaks.

KEYBEAD corner lath with precision formed bead for outside corners. Open mesh assures strong, solid plaster corners.
INSULATING GLASS

Standard sizes available from distributors' stocks for IMMEDIATE DELIVERY

Production is up—so you can add the popular appeal of Thermopane to your houses without delay.

Many builders are using Thermopane insulating glass in every window as a sales feature to move houses faster. Thermopane is well known to home buyers. It’s wanted.

Call your L·O·F Glass Distributor or Dealer for full information on sizes, installation data and types of sash for Thermopane insulating glass.

LIBBEY·OWENS·FORD GLASS CO.
354 NICHOLAS BLDG., TOLEDO 3, OHIO
WHICH SHEATHING STACK WOULD YOU BUY TO DECK A 20-SQUARE ROOF?

RIGHT YOU ARE! And, because more and more builders are "guessing right," there'll be thousands of new cedar shingle roofs going up this year—applied over spaced sheathing.

A simple cost accounting tells the story. Since roof sheathing is a "hidden cost," it is sometimes overlooked as a place of possible labor and material waste. Strong, rigid CERTIGRADE cedar shingles, used with spaced sheathing, enable you to save up to 50% on this costly phase of construction.

Substitute roofing materials "lean on" solid sheathing for strength. Cedar, one of the strongest materials known for its weight, needs no such expensive support. Your savings on spaced as against solid sheathing offset the occasional unit price difference between genuine CERTIGRADES and imitation materials.

So play it smart. Cash in on the spaced sheathing principle. Put your roofing money on the roof, not under it. CERTIGRADE No. 1 shingles outlast substitutes—by decades—and make the homes you build more salable, longer.

We've prepared a roof estimating sheet for your use. It's free. It will help you quickly figure the difference in cost (material and labor) between spaced and solid sheathing. Once you compare the two construction methods, using your own local labor and material costs, you'll see why the switch is to CERTIGRADES... and spaced sheathing.

For your free cost estimating sheet, write:

RED CEDAR SHINGLE BUREAU
5510 WHITE BUILDING, SEATTLE 1, WASHINGTON
OR 425 HOWE STREET, VANCOUVER 1, B. C.
Architecturally, this church in La Crosse, Wisconsin, departs radically from the conservative design tastes of that city. Functionally, however, it provides the ultimate in facilities for the traditional need of the congregation members—a religious, educational and social center.

By taking full advantage of site contours, the architect has achieved the impression of a one-story building on the street side. Actually, it has two levels fully exposed at the rear and sides. Located on the main floor are all rooms normally used by older members of the congregation, while the entire lower level can be used for educational and social activities of youngsters.

Large social gatherings and church dinners are held in the community room on the main floor. A modern kitchen and storage area adjoining the community room are designed to serve up to 350 people per hour. A solid masonry wall assures privacy on the street side. The opposite wall, with its wide expanses of insulating glass, affords a view of distant bluffs.

Heart of the building is the narthex. Primarily a lobby and after service lounge, it can provide seating accommodations for an overflow crowd by opening the large glass doors which separate it from the sanctuary.

Seating 400, the sanctuary is the focal point of the structure. Pink brick walls, green carpeting suggest colors of nature visible through the north window wall. South wall, constructed entirely of brick, is unbroken by (Continued on page 126)
Color is magic. The wise use of color in complete exterior color styling pays handsome dividends in quicker home sales and more home improvement business.

Ruberoid helps you turn today's demand for color into a big sales opportunity ... with a complete line of roofing and siding shingles in decorator colors ... and with a "Colorator" selector to help you turn color theory into cash.

The "Colorator" helps you cash in on the Ruberoid Color-Styled Home Idea advertised in The Saturday Evening Post, Better Homes & Gardens, Good Housekeeping and farm magazines.

CASH IN ON COLOR WITH THE RUBEROID Color-Styled HOME IDEA

THE RUBEROID COLORATOR
Anyone can be a color expert with the Colorator. It turns complicated theory into simple terms, showing Ruberoid roofing and siding colors in pleasing combinations with suggested trim and accent colors. It not only dramatizes exterior color styling ... it's a practical easy-to-use working tool and sales tool.

Your Ruberoid dealer has a Colorator for you to see and use, or you can send the coupon below for your own Colorator.

The RUBEROID Co.,
Dept. A, 500 Fifth Ave., New York 36, N. Y.
Please send my free copy of the Ruberoid Colorator.

Your NAME
COMPANY
ADDRESS
CITY ZONE STATE

MAY 1954
A modern technical development reducing wastes and labor costs.

**KORD Extruded Prefabricated Caulking Compound.**

A modern technical development reducing wastes and labor costs.

**Channel type KORD** — used as sketched on sill gaskets between concrete and wood.

**NO. 101**
Ribbon type — used between steel plates permits expansion and contraction.

**NO. 5**
Four strip KORD — for stone setting .. weather-proofing joints. Also eight strip No. 501.

**NO. 102**
To set sealed window units and steel casings.

---

**Church (Continued from page 124)**

windows or decorations. This arrangement removes the congregation from the noises and disturbances of the street and eliminates intense, hard-to-control sunlight.

Center of worship is the chancel. Curved brick wall behind the communion table has no ornamentation except for a large gold cross attached to the wall. A high vertical screen behind the pulpit serves as a backdrop for the pastor; acts as a sounding board for speaking.

Cross-section of nave shows heating tunnel which circles building beneath ground floor; makes repair of plumbing easy. Also shown are baffle for window wall and lighting in purlins.
Command-Aire TWINS SPUR
TREND TO AIR CONDITIONING
IN NORTHERN U.S.

BUILDERS OF FASHIONABLE HOMES
IN TWIN-CITY AREA CITE REASONS
FOR CHOOSING YEAR 'ROUND AIR
CONDITIONING BY BRYANT

Leading builders, F. R. Lein and Harold R.
Rosendahl (Minneapolis) and Larson Building
Co. (St. Paul) found in Bryant's "Command-Aire" Twins all the features they...
and you have looked for in residential air-conditioning equipment. Specifically,
they wanted equipment that was (1) well engineered; (2) backed by a realistic war-
 ranty policy; (3) compactly designed to save space; (4) available in a broad range
of heating and cooling capacities and (5) priced competitively. The way in which
the "Command-Aire" Twins measure up to these specifications clearly explains their decision
to install Bryant. We think it also suggests an opportunity for you.

- Skillfully engineered... The "Command-Aire" design features independently
  operating units to assure adequate capacity for both heating and cooling.
- An adequate warranty... for 5 years on the cooling side... eliminates service
  headaches for you.
- Extremely compact design... requiring as little as 7½ square feet of floor space.
  You save substantially on space costs.
- Wide range of sizes... furnace "Twin"... (gas or oil) in sizes up to 175,000
  Btu/hr. Cooling "Twin" in 2, 3 and 5 ton capacities.
- A new low price... for the complete unit. Or, if desirable, you can install the
  furnace first and add the cooling unit later... at the buyer's convenience.

For full information write: Bryant Heater Division, Affiliated Gas Equipment, Inc.,
17825 St. Clair Avenue, Cleveland 10, Ohio.
Place footings on firm soil below the frost line, following building code requirements. If no code is applicable, make them twice as wide and as thick as the wall is to be.

Except in dry climates or in extremely well-drained soils, place drain tile around the outside of the footing. Cover the tile with 12 in. of coarse gravel or crushed stone.

After the basement walls have been completed paint them with two coats of hot bituminous material. The second coat should be applied at right angles to the first one.

Clean forms. Coat inner surfaces with oil, soft soap or lacquer. Tie and brace forms securely so that they retain their shape and position while the concrete is being placed.

Use a quality concrete mix. Place it in even layers not more than 12 in. deep. Spade or vibrate concrete enough to settle it against forms and to avoid honeycombing.

Use full mortar bedding on footing. Lay masonry plumb and level, using horizontal and vertical face-shell bedding as pictured above. Use good quality mortar.

Apply two %-in. coats of portland cement plaster to that part of outside wall to be underground. Round off over footing to divert water away from base of the wall.

What about condensation? Often builders are blamed for leaky basements when the trouble is condensation. Avoid this by telling buyers condensation can be overcome with a dehumidifier or by controlling ventilation and covering cold water pipes.

PORTLAND CEMENT ASSOCIATION
Dept. 5-3, 33 W. Grand Ave., Chicago 10, Ill.
A national organization to improve and extend the uses of portland cement and concrete...through scientific research and engineering field work.
OUTSTANDING NEW GAS UNIT

COMPACT... EASY TO INSTALL... EFFICIENT

New beauty, compactness and rapid-heating qualities make Spencer's new ready-to-install gas boiler an outstanding choice for either large or space-budgeted homes.

Easily installed anywhere in the home, the new Spencer Rancher adds attractiveness to a utility room or finished basement. It is completely enclosed in a gleaming white beauty jacket. The door can be hinged right or left for easy installation. Walls and base are water-cooled. Only a minimum of floor space is needed. Six models are available with instantaneous hot-water coils.

Easy to service. Controls and burner readily accessible through jacket door. For cleaning, remove top panel of jacket and the cover plate of flue collector, No need to disturb controls or piping.

A code boiler, the Rancher conforms to ASME and IBR regulations. It's AGA-approved for manufactured, mixed or natural gases. It has all the Spencer quality features—self-cleaning boiler, rapid heat transfer, compact design.

This is only one of Spencer's Complete Line.

NEW SPENCER RANCHER

1G Series: 6 Models—40 to 128,000 BTU output
W—13½", L—25½" to 43½", H—42½"
2G Series: 6 Models—80 to 320,000 BTU output
W—18½", L—28½" to 47", H—49½"
Open planning, now so popular, often requires some sort of movable screening or partitioning to give the space maximum livability. This design by architect Huson Jackson of New York for a flexible accordion-type partition was tested by Pratt Institute's Department of Architecture under Olindo Grossi. Results:

Rigidity was found to be adequate, acoustic value good, flexibility very good (one person can easily move panels). Panels have to be made to size, with proper finish. Precision of installation is essential (requires two skilled carpenters). Cost is expensive.

Jackson's design uses Richard-Wilcox hardware, except for the door pulls which are Corbin's No. 2097 flush door pull. The roller catches are the Stanley hospital roller catch No. 53. Reese door seals are used at the base of the panels and help the acoustic value of the partition.

The solid core doors are 1 3/4 inches thick, 2 feet 11 inches wide and 9 feet high. They are in a natural walnut veneer finish.
Hunter Attic Fans help
Schuermann of St. Louis
sell over 1000 homes

HUNTER’S COOL COMFORT AT LOW COST
MAKES A BIG HIT WITH HOME BUYERS

Norman R. Schuermann, President of a firm that has built over 8000 homes, says: "We equip our homes with attic fans at no extra charge because our home buyers can thus take advantage of the cool summer nights for which St. Louis County is noted. We are currently using Hunter Fans because we have found them economical and dependable."

Throughout the nation builders are finding that home buyers want cool comfort... and that the modern Hunter Package Attic Fan is the most practical way to provide it at low cost. This fan comes complete with automatic ceiling shutter and requires only 18" attic clearance. Sizes from 5000 to 16000 cfm (air deliveries certified) fit any home size and climate. Fan unit is guaranteed 5 years; motor and shutter 1 year.

Write for 1954 Hunter Catalog and Builder Price List

Hunter Fan and Ventilating Company
381 S. Front St., Memphis 2, Tenn.
SEE OUR SECTION IN SWEET’S
Depend on Goldblatt for
A Complete Line of
QUALITY DRY WALL TOOLS
One source for everything you need!

THREE-IN-ONE DRY WALL FINISHING TOOL. A new, improved tool that's amazingly versatile! It shears, feathers, finishes! Has 3 interchangeable and replaceable blades...made of very flexible, perfectly tempered spring steel. Each blade locks quickly, securely into the lightweight aluminum blade clamp by means of two small brass wing nuts. All blades can be used in reverse travel position (see small photo).

No. TRIO—Complete with 3 Blades $5.95
No. DWTS—Shearing Blade Only 11-in. x 4-in. with a 3/32-in. concave curve $1.75
No. DWI1—Flat Blade Only, 11-in. x 4-in. $1.50
No. DWB—Flat Blade Only, 8-in. x 4-in. $1.50
No. DWBC—Blade Clamp Only $2.75

ONE-MAN, DRY WALL TAPING MACHINE. Low cost, easy to operate. Spreads cement and tape evenly in one quick operation. Cement spreads automatically to desired thickness. Learn to use in a few hours; tape many times faster. Lightweight alloy, weighs only 4-1/2 lbs. empty or 8 lbs. loaded with 250' of tape. Loads easily in seconds. Excellent balance, pencil-point precision. ORDER TODAY!

No. DWTM—Each $32.00

NEW IMPROVED CORNER TAPING TOOL. This redesigned and greatly improved tool is made out of a recently-developed, highly-flexible stainless steel. So flexible is this new alloy that we can now form the blade from one piece of steel and eliminate the split in the blade altogether. This new design eliminates all sharp, exposed working edges...and does away with any possibility of tearing paper. These sides are wider—they're a full 4-in. now. The blade is set to an angle that provides just the right amount of pressure for clean, fast and easy inside corner taping. The stock, this tool is rust-resistant and almost self-cleaning...tough and durable. The lightweight aluminum mounting is set far back on the blade for perfect "hang." The hardwood handle spells out comfort.

No. DWCT—Each $4.95

CURVED BLADE TROWEL. 12 x 4-1/2-in. Tempered Spring Steel Blade has a 3/32-in. concave bow—just the ticket for finishing dry wall seams—and perfect for those who prefer a "Trowel" type tool. The fine blade is permanently riveted to a lightweight aluminum shank. Handle shaped for comfort.

No. DW34—Each $4.50

Write today for details on other money-saving items in the complete line of Dry Wall tools and equipment. Just about everything you need for faster, easier and better work.

SEE YOUR DEALER OR ORDER DIRECT FROM AD

Place & Co. offers $6,195 ‘finish-it-yourself' house

Making a bid to house low income families, Place and Company of South Bend, Indiana, has unveiled a $6,195 three-bedroom package. The 364 square foot house will sell under FHA financing for $495 down and $40 per month on a $800 lot. Planned for the “finish-it-yourself" market, the house is sold with concrete floors, unpainted walls and no doors to the bedroom entryways.

Hailed by the Place firm as the first conventionally built three-bedroom house at this low price, plans call for the house to be sold to builders throughout the middle west as a pre-cut package.

Almost simultaneously with the unveiling to the nation's press, the house was presented to Representative Jesse Wolcott's House Banking and Currency Committee by the National Association of Home Builders as proof the industry is thinking about housing for low income families.

Details of the low-cost package also will be
Extra Savings with
GATES CONCRETE FORM TIES
Leaves Additional Dollars for
Extra Selling Features

This year, more than ever before, selling homes will depend on the extra comforts and conveniences built into them. Therefore, it is important that costs be cut to the bone on operations which do not affect the appearance of the building. A good foundation is important to any home buyer but is usually not the deciding factor.

Gates method of foundation forming is designed to provide better foundations at lower cost by reducing labor hours needed to build forms. The use of Gates Concrete Form Ties in conjunction with tried and proven methods of forming have made these savings possible.

Free instruction manuals are available showing how Gates Ties can be utilized to the greatest possible advantage . . . well illustrated to help even the most inexperienced man. Write for complete information today!

Utility closet houses counter flow furnace and hot water heater. Owner must install door for this room shown to Indiana's Senator Homer Capehart as an example of a low-cost house that will warrant 40-year financing. V. A. Place, president of the South Bend concern, said "We have the same material in this house as we put into a $10,000 house. It ought to last 75 years."

The three-bedroom, 24x36-foot house is built on a concrete slab. Standard construction methods and materials are used in the framing of the structure. Studs are 2x4's, 16 inches on center. Sidewalls are insulated with 1/2-inch insulated sheathing. Exteriors are either 3/4 cedar paneling or exterior grade, tempered hardboard with batten strips.

Roof rafters are 2x6's, 16 inches on center with the interior ceiling following the line of the 2-in-12 pitched roof. Ceiling insulation is

(Continued on page 134)
CHELSEA ATTIC FANS

...Help You Profit by the "Trend Toward Comfort"

... Built-in air cooling is the low cost 'extra' that adds tremendous sales appeal to new homes... You can quickly and easily install a Chelsea Attic Fan in either ceiling or attic wall—everything needed to do the complete installation is included in one package... Chelsea Attic Fans, approved for FHA financing, can also be included in your home modernizing contracts for extra profits... Models are available to efficiently cool homes of any size while Chelsea's Underwriters Approval, Certified Ratings and 5 year guarantee protect you.

Low in Cost...Easy to Install!

Chelsea's patented spring mounting insures quiet, vibrationless service... Gives complete customer satisfaction

CHELSEA FAN & BLOWER CO., INC.
PLAINFIELD - NEW JERSEY
MANUFACTURERS OF INDUSTRIAL & HOME VENTILATING EQUIPMENT

(Continued from page 133)

Kitchen area is 12x8 feet with space for eating and storage. Minimum number of cabinets are installed; owner can add additional units placed between the roof rafters. Roof sheathing is ¾-inch plywood. A two-ply roof completes the job.

Interior of the house is finished with V-jointed 4x8 sheets of gypsum board. No attempt is made by the builder to conceal the joint; owner does his own interior decorating. Bath has quality fixtures, but owner must paint walls and add bath mirror. Shelves are installed by builder for bath supplies. Copper pipes are provided, as well as screens and weather stripping.

The low-cost package has an oversize, oil-fired, counter flow furnace with a perimeter heating system. Place and Company also is using its new 220 volt, 3-wire system incorporating six circuits with a 60 ampere fuse box.

Carport or garage are available, cost extra.
PICK ONE UP IN EVERY DOORWAY

Up to $100 savings for every single door opening you fill with a Fenestra® Hollow Metal Door-Frame-Hardware Unit. Compare the installed cost of these Units with the cost of other hollow metal doors.

Here are four sound reasons why Fenestra Door Units can bring you such important savings:
1. They cost less to buy because you get production-line economy—not custom job costs. They are mass produced on special jigs that avoid expensive time and labor.
2. They come to your job complete with prefitted door, frame and hardware specifically made for each other. You save time because you eliminate planning, ordering and assembling special elements.
3. You save on installation costs because these complete units need no cutting, no fitting, no mortising or tapping. Each door is installed and in use in minutes.
4. And you save year after year on maintenance because Fenestra Hollow Metal Doors can't warp, swell, stick or splinter. They always open easily . . . smoothly. They close quietly because inside surfaces are covered with sound-deadening material.

For strong, solid quality at low cost, check on Fenestra Doors. There's a door for every purpose in the Fenestra line: Entrance Doors, Flush or Regular Interior Doors with glass or metal panels, Doors with the Underwriters' B Label.

For pictures and details, write the Detroit Steel Products Company, Dept. AB-5, 2260 East Grand Blvd., Detroit 11, Michigan.

* Your need for lower building costs encouraged us to develop a quality door unit that would save initial cost and installation cost—Fenestra Hollow Metal Door-Frame-Hardware Units...a great advancement in building products.
TIP FOR YOU FROM:
Housing Development
Corporation

"Prospects are delighted when they see the G-E Kitchen with all its worksaving appliances, in our custom houses, for only $16,450. Many people decide to buy right then and there. To date, we have sold 1079 houses with G-E Kitchens."

At right: Messrs. Anthony Capitelli and Nathan Breicker

"Sold 1079 Houses with G-E Kitchens"

"In order to keep our sales records high for 1954, we naturally try to give people what they want, yet keep the final price tag realistic... at a figure prospects are willing to pay.

"We're glad to say that our '54 houses are newer and bigger. The General Electric Kitchen in our 'Riviera' house, for example, includes: Refrigerator, Under-Counter Dishwasher, Speed-Cooking Range, Automatic Disposal, ample counter and cabinet space, and floor to ceiling picture window.

"Again this year, we believe we will have an extraordinary sales volume because we are offering extraordinary values!"

1079th PURCHASER, Mrs. James V. Bryant of the Housing Development Corporation's largest model "Riviera" Rambler says: "My husband and I selected this house because we felt it is an extraordinary value, has a good location and an excellent design. The conveniences of this house are truly emphasized in the de luxe, custom-type General Electric Kitchen, which means better living in any house."

Whether you plan to build a few houses or hundreds, get the facts from General Electric. Find out how we can help you (in so many ways) to sell houses faster in today's market. Call your General Electric major appliance distributor today.

Home Bureau, General Electric Company, Appliance Park, Louisville 1, Kentucky.
(year after year) in Washington, D.C.

TIP FOR YOU FROM:

M. T. Broyhill & Sons

"We're now building 600 houses in our new development, and each of them will feature a worksaving General Electric Kitchen—just as our other houses in past years have. No doubt about it, G-E Kitchens help to sell houses. To date, we have sold 1500 houses with G-E Kitchens."

At right: Messrs. M. T. Broyhill, Jr.; Mr. M. T. Broyhill, Sr.

"Sold 1500 Houses with G-E Kitchens"

"Our houses sell in the price range of $13,950 to $35,000.

"Regardless of price class, however, we find that most women want all-electric, timesaving appliances in their new houses today—and I don't blame them.

"Above all, they express an overwhelming preference for General Electric appliances. Our custom-type General Electric Kitchen is one of our most potent sales features."

** **

MRS. L. V. DRAVENTSAIT in the G-E Kitchen of her new home. Mrs. Draventsadt is mighty pleased with her General Electric appliances for she knows how efficient and dependable they are, having just moved from a previous home, built by Mr. Broyhill, which also was General Electric equipped.
"I save $115 per job with Insulite's Shingle

He's "sold out" through October. Close cost control, good design and planning plus alertness to new ideas and materials help Mr. Doll pack maximum value into his homes. Result: he's sold out through October, 1954. See how Insulite can help you offer more house for less money. Write today for "5 Ways to Build Better for Less." It's packed with well-illustrated and documented case histories, technical information and product and application data prepared by Insulite engineers. Send a card or letter to Insulite, Minneapolis 2, Minnesota.
on homes like these
Backer System

"We have a tight cost control system. That's why I can tell you exactly how much Bildrite and Shingle-Backer help me save on these $13,650 homes. Sheathing and under-coursing time is cut almost in half, costly matching loss and waste is practically eliminated, insulation value of the sidewalls is increased without extra expense." Here's how.

WM. R. DOLL, president
Another Doll House, Inc.
Buffalo, New York

Bildrite saves 20 man-hours and $94.75 on Mr. Doll’s $13,650 homes (left). With Bildrite, one man can sheath 1,000 sq. ft. in 8 hours or less. Cuts application time up to 43%. Bildrite eliminates need for corner-bracing (F.H.A. accepted). Since Bildrite is waterproofed throughout with asphalt, there's no need for building paper; can be exposed to weather indefinitely.

Shingle-Backer saves $20.30 on homes like these. Cuts application time in half. Four-foot panels produce deep, modern shadow line. Practically eliminate waste. Help increase insulation value of sidewall. Can be used or stored anywhere in any weather because Shingle-Backer is waterproofed throughout with asphalt. Approved for application directly over Bildrite sheathing.

Build and insulate with double-duty
INSULITE
the original structural insulation board

MAY 1954
INSULITE DIVISION, Minnesota and Ontario Paper Company, Minneapolis 2, Minnesota
REMOLDING work like this beautiful room above is big business today... and it’s profitable business for you! Let Gold Bond Insulation Board help you get a bigger share of this market. With it, your customers will be your best salesmen. They can see, feel and hear the benefits of this versatile material that decorates, insulates and sound conditions all in one economical application.

The beautiful pastel colors and the variety of sizes of board, tile and plank make it easy for you to design and build easy-to-sell distinctive interiors. Gold Bond Insulation Board nails up with ease. Plank and Tile go up quickly with a stapling gun. Application is fast... means more jobs, greater profits for you. And the low price will please any customer... make sales easier.

Get all the profit facts on Gold Bond Insulation Board. Send a postcard today for the colorful, 28-page sales aid, “Interiors by Gold Bond”—full of remodeling ideas for homes, stores, restaurants, summer cottages, bowling alleys and many other prospects. Write today to—National Gypsum Company, Buffalo 2, New York.
A HOBBY SHOP in the basementless house is now a possibility. This Lincoln, Nebraska house built by Irving Peterson has provisions in the all-purpose family room for dad's complete set of tools.

The workshop can be hidden from view when the family desires the room for other uses. A basswood screen is lowered to hide the tools.

The tool recess is 36 inches deep, and set between two closets. Power tool stands are equipped with rollers so that they may be rolled into the room for more convenient use. For storage, the power tools are rolled into the recess. Hanging shelves above the fluorescent light fixture provide storage space for materials.
NEW!
Perfection-quality...
PROJECT-PRICED!

COMPARE IT!
- 14-gauge steel combustion chamber.
- 10-year guarantee.
- Direct-drive blower.
- Low Hi-Bay model saves headroom, floor space.
- Rust-proofed casing. Sunset Red baked enamel exterior.
- Cool sides insulated with fiber glass and aluminum foil.
- Easy to install. Controls factory-assembled.

G-804 shown. Gas-fired, 90,000 Btu's, readily converts to oil. F-604 72,000 Btu's, readily converts to gas.

Here's the furnace designed to save money for the builder and still give the home buyer all the comfort of modern, automatic heating. The frills are out . . . but Perfection quality and guaranteed performance are built in. And the big plus for you is that Perfection cuts complaints and service calls to the minimum. Ask your heating contractor about new Perfection PROJECT-PRICED furnaces. Perfection Stove Company, 7519-D Platt Avenue, Cleveland, Ohio.

No. D-109
simplifying the details
streamlines the house

Expressed in simplest form, the door and window frames of this house not only accentuate front elevation features but also provide a base for the application of standard units. Linked together as a single unit by an irregular roof line of low pitch, outstanding features are the entrance, living room window wall, and projecting bay over the garage door.

The entrance door frame, and the transom frame above, are built of two-inch-thick rabbetted plank members with side lights of fixed glass recessed into the adjoining stone wall.

Window wall is a combination of fixed glass set in stops, fixed glass set in sash, and standard casement units. Mullions are formed of a 3x4 1/8-inch structural core surrounded with built-up members. A deep shadow effect is obtained in the area under the windows from sill to top of foundation with wood blocks placed in back of butt end of six-inch bevelled siding.

The same character of detailing occurs in the projecting bay where fixed and casement sash are placed together in one large opening. Two-inch-thick plank mullions form the separation.

Garage and entrance door frame are treated in a similar manner with plank and stop for head and jamb members. The three-inch-diameter pipe column between garage and entrance door forms a mullion for both, and is encased with one- and two-inch-thick members. Soffit of bedroom overhang above doors is finished in plywood.
NO. D-109 SECTIONS—WINDOWS, DOORS, WALLS . . .

Elevation . . .

STRIATED 2-W. SIDING

5" BEAM
2'X4'-16" O.C.
2'X4' LOOKOUT

Sections . . .
For comfort-conscious home buyers...specify Emerson-Electric ATTIC FANS

Today's home buyer is just as anxious for assurance that his home will be cool in summer as he is that it be warm in winter.

Here is a low-cost installation that pays big dividends in satisfying home buyers: an Emerson-Electric Attic Fan. Available in 24", 30", 36", 42" and 48" blade sizes, these dependable fans have exhaust capacities up to 19,400 c.f.m. Made for either horizontal or vertical installations.

Write for complete performance and installation data at once. Ask for Bulletin No. 612.

THE EMERSON ELECTRIC MFG. CO.
St. Louis 21, Mo.

No. G-53
make the ceiling solve the lighting problem

In the conversion of this commercial building into a funeral chapel, emphasis was placed on the lighting arrangement as shown in the detail plate on opposite page.

Most of the remodeling work in the chapel was confined to the ceiling. A series of splayed surfaces, formed of plaster, extend across the width of this room. Each splayed unit terminates in a curved plaster surface. Behind these are concealed continuous rows of incandescent lights, which reflect their light to the upper portion of the splayed surface. The entire room is bathed in a soft glow with none of the lights visible to the naked eye. An effective pattern is created on the ceiling by the play of light and shade, together with the soft illumination on drapes, walls, and pews.

In the reception room a similar arrangement is provided. Again the emphasis is on the ceiling where three large plaster coved areas, with a deep recess in back of the moulded wood face, provide space for lighting. A single fluorescent tube extends around all four sides of cove. Two incandescent lights are placed in each recessed cove in front of the tube. These are used as night lights during off hours.
NO. 6-53 INDIRECT LIGHTING

DETAIL OF COVE IN RECEPT. R.M.

SECTION . . .
Frankly, we believe this year offers greater opportunity for volume building than any previous year. As a National Homes dealer you can cash in by showing your buyers National's extra smart designs, the open planning, the comfort features, the individuality they want and our various new models will enable you to satisfy every taste, every income level.

National's mass buying power and unique automatic production methods allow you to make a greater profit over your year's operation. Our huge expansion program now permits us to serve a large number of additional builders who can qualify. Investigate!

The two "Ranger" models shown above and below indicate the flexibility and variety of National Homes designs—an important sales advantage!

Sells 201 Nationals in 13 Days
H. B. Layne Contractor, Inc.
Springfield, Ohio

As a result of strong local promotion, aided by the great public acceptance of National Homes, we sold 201 "Pacemakers" in 13 days. Furthermore, when people learned that we had a new development next to this project, we got orders for 135 more Nationals before we had even erected our model house.

Sincerely, H. B. Layne

Prospect List Waiting!

Our dramatic advertising campaign in LIFE and other media has produced hundreds of thousands of inquiries. Those from areas not now served by authorized dealers are on file. The ones in your territory will be sent to you if you become a National builder-dealer. Write, wire or phone for franchise details today!
Here's the case and what's in it for you!

The Stanley No. 83 Builder's Kit contains a carefully selected, tested and proved collection of time-saving, cost-cutting door hanging equipment for the modern carpenter. Built around the versatile Stanley Electric Router, starring here as a hinge mortiser, this kit has what it takes for up-to-date door hanging.

The same ¾ h.p. motor that powers the router at 20,000 r.p.m. fits the GA142 plane attachment — a real work eater when it comes to fitting doors.

Other vital accessories included in this builder's kit are:

- Router base
- Template guide
- Straight and circular gauge
- Arbor
- Mortising bits (2)
- Grinding wheel
- Grinding arbor
- Cutter grinding attachment
- Door and jamb butt template
- Carrying case
- Plane cutter

Your dealer has Stanley No. 83 Builder's kit, or write Stanley Electric Tools, 400 Myrtle St., New Britain, Conn.

Here's Stanley's famous 241 hinge...

With round corners for use with electric mortisers. Check off the features that make this hinge the Standard of the World.

1. Flat button tips
2. Hole in the bottom for quick pin removal
3. Clean, accurate countersinking
4. Easily seated, non-rising, lubricated pin
5. Complete interchangeability of leaves

C. Smooth steel, toughened by cold rolling

Stanley Round Cornered Hinges are available in any size or finish desired, in plain joint or ball-bearing, either regular weight or extra heavy.

Your dealer has them, or write for details to Stanley Hardware, 105 Lake St., New Britain, Conn.
Look what we got since our Daddy

NEW CAREY-COLORED

With exclusive new deep-tone colors and glazed ceramic surface that's washable!

Ceramo in colors is completely different . . . the only glazed asbestos siding with deep, rich, modern colors that are unfading! Colors that have depth and character unlike any you've ever seen before!

"No other siding can duplicate these rich, deep 'n mellow CAREY CERAMO COLORS!"

- CERAMO CONGO BROWN
- CERAMO GRANITE GRAY
- CERAMO SHERWOOD GREEN

... And don't forget! Famous Ceramo White—whiter than fine white paint by actual laboratory tests!
Carey White Ceramo siding has long been the World’s standard for quality, durability and beauty in white sidewall materials. And new colored Ceramo offers the same proven advantages that made white Ceramo famous: Resistance to fire, insects, weather, dirt and grime, stains... A glazed ceramic surface that’s 100% washable. Plus unfading, lasting colors that are baked-on as an integral part of the ceramic surface. No wonder folks can’t resist Ceramo for their homes!

Fast, easy application, no special tools or equipment

You can plan a Ceramo job with full assurance that Ceramo’s ease and speed of application will provide real economics. And your customers will like Ceramo’s beauty, freedom from maintenance and painting expense. So don’t even think about another sidewall material until you call for complete information on new Colored Ceramo! The coupon will bring you literature and samples. Mail it right away!

Ceramo in Color
THE PHILIP CAREY MFG. COMPANY, LOCKLAND
Cincinnati 15, Ohio

[Check box]

- Rush me all the facts about new Carey Colored Ceramo!
- Have your Representative call!

NAME ____________________________
COMPANY _______________________
ADDRESS _______________________
CITY ___________________ ZONE __ STATE __
how to apply asphalt shingles to low-slope roofs

The use of three-tab, square-butt asphalt strip shingles are now recommended by the Asphalt Roofing Industry Bureau for roofs with a pitch as low as two inches per foot.

A series of tests covering a period of 13 months were conducted in a specially-designed storm machine. In these tests, wind and water were applied in a manner to simulate wind-driven rain against test panels at velocities ranging from 14 to 60 mph.

Underlayment

The application of asphalt shingles to a 2-12 pitch calls for an underlayment of two full layers of No. 15 asphalt saturated felt. As shown in Fig. 1, application begins with a 19-inch starter course. It is placed along the eaves to overlie the metal drip edge, and is followed by a 36-inch sheet that completely overlaps the starter course. The 36-inch sheets that follow must be placed so that each overlaps the preceding course by 19 inches. The sheets are secured to the deck by either 4-inch staples or 3/4-inch roofing nails, using only enough fasteners to hold the material in place until the shingles are applied.

Eaves Flashing

In areas where the January daily average temperature is 25 degrees F. or less, the felt underlay extending up from the eaves of the roof to overlie a point 24 inches beyond the inside wall line of the building should be treated in the following manner:

A continuous layer of plastic roof cement should be applied at the rate of two gallons per 100 square feet to the surface of the underlay starter.

(Continued on page 152)
Little Drops of Water (Condensation)
Ruined a Fine Home ---
Cost over a Million Dollars
to an Apartment Development

They thought they would move their fine country home to a new site. The state highway was coming through. They could not! Account of condensation inside the walls, the sills had rotted away.

The owners of a path-breaking apartment house development in a great city had to pay a repair bill of more than a million dollars for ripping out condensation-soaked insulation and replacing damaged, plaster walls.

Today's tightly-built, high humidity houses create new problems of vapor pressure and vapor retention within. Sometimes excessive flow of vapor into building spaces occurs, and the formation of destructive condensation is enhanced, where a vapor barrier is lacking from the insulation or there is one with too many breaks in it, or one which while waterproof is not vapor-proof.

But there now is a new multiple accordion aluminum which forms a continuous, edge-to-edge blanket of uniform depth between studs or joists, giving the entire area maximum protection against condensation formation as well as against heat loss or intrusion.

Multiple accordion aluminum's surfaces have high radiation or heat ray reflectivity (97%); low absorptivity (3%); and low emissivity (3%). Conduction is low because of preponderant air spaces of low density. Aluminum and fiber layers retard convection, outer and inner.

The aluminum sheets, 500 ft. and 750 ft. long, are impervious to water vapor. Infiltration under the flat, stapled flanges is slight. Condensation formation on or within this type of insulation is minimized by the scientific construction of multiple layers of accordion aluminum, fiber and air spaces. The commercial form of multiple accordion aluminum is Infra Insulation, Types 6-Si and 4-Si.

The U. S. NATIONAL BUREAU OF STANDARDS has prepared an interesting study of MOISTURE CONDENSATION in walls of dwellings. Obtain a copy at our expense by using coupon.

COST OF INFRA INSULATION INSTALLED
in new construction between wood joists, material with labor,

Type 6-Si under 9½¢ sq. ft.  
Type 4-Si under 7½¢ sq. ft.

INFRa INSULATION, INC., 525 Bway., New York, N. Y.
how to apply asphalt shingles to low-slope roofs

(Continued from page 150)

course before the first full course is laid down. This also applies to the 19-inch underlying portions of each succeeding course. In each case, the cement should be applied with a comb trowel, and the overlying sheet should be pressed firmly into the cemented area, using a broom or light roller to insure complete adhesion at all points.

Shingles
The shingles may be applied to break joints on halves, or thirds, or at random. In either case they shall be applied at 5-inch exposure, using four nails per strip, see Fig. 3.

Fig. 4—Shingles are applied over double underlayment

Tab Cement
All shingle tabs should be secured in the following manner: Under the center of the exposed portion of each tab and on the surface of the underlying shingle, place a spot of quick setting asphalt cement of a type recommended by asphalt shingle manufacturers. The cement should not exceed one square inch in area. (See Fig. 4.) Press the tab firmly into the cement, being careful to prevent the cement from squeezing out over the exposed surfaces. The shingle tabs should not be bent back any further than absolutely necessary in order to place the cement in position. All shingles that are placed on the rake of the roof shall be cemented to the metal drip edge and to each other.

Fig. 5—Four nails secure each strip shingle

Color
The use of asphalt strip shingles introduces the element of color into a roof of 2-12 pitch. Color consultants consider the roof the key color area, on which the entire color scheme of the house rests.
NOW... be the first to install the NEW RUSSWIN

Air Jet

SCREEN-STORM DOOR CLOSER

Check these all-star Air Jet features:
- Compact... 13½" long; 1½" in diameter.
- Sturdy, impact-extruded aluminum tubing
- Long-wearing nylon valve with fingertip adjustment
- Dependable, all-position hold-open device
- Concealed buffer spring
- Self-lubricating precision parts
- Weather-proof finish

... another Russwin "All-Star" product designed to help you swing more sales!

ECONOMICALLY PRICED • EASILY INSTALLED • QUALITY MADE
Make no mistake... it pays to be first with the new, first with the best! For today's value-conscious home buyer is becoming more and more discriminating... looks for the quality "extras" that mean more for his money... the built-in features that mean better living. And a smooth-operating screen-storm door closer is one of the first features that meets his eye. So don't be left... holding the door... without this important "All-Star" selling point. See the new Russwin Air Jet Screen-Storm Door Closer at your dealer's today. Russell & Erwin Division, The American Hardware Corporation, New Britain, Conn.

MAY 1954
Here's the LOW-COST way to add Sales Appeal to every home you build!

Today's home buyer wants his new home completely equipped with the latest in modern conveniences. BUT ... he doesn't want to pay high additional costs for these comforts.

That's why a LAU Fan answers your problem. At a low cost, a LAU "Niteair" Fan offers the home owner the ultimate in cool, refreshing, healthful slumber. During those hot summer months he'll sleep cool as a cucumber in a house that YOU built and SOLD him.

Quick... easy... economical to "install-when-you-build". The LAU Fan is the quickest way to a prospect's heart and POCKETBOOK. For more sales, more profits, plan to install tested, proven LAU "Niteair" units in your next project!

Guaranteed 5 years
Lau fan ratings are Certified by the PFMA and carry UL approval. Fans are guaranteed for 5 years and motors carry a one-year warranty.

THE LAU BLOWER COMPANY, 2008 Home Avenue • Dayton 7, Ohio
Write today for catalogs and further information.
Build NEW light into modern homes with...

**MALT-A-Glide**

Wide, wide expanses of glass—for that wall to wall window treatment so greatly admired! Today's architecture demands that exterior walls have that simple, uncluttered look, yet provide adequate light and ventilation. MALT-A-GLIDE Horizontal Sliding Wood Window Units are ideal for every room... serving handsomely as "light-walls" for living areas, or as high "ribbon windows" where privacy is wanted.

MALT-A-GLIDE Horizontal Sliding Wood Windows—newest in the time-proven line of MALTA wood window units—are chemically treated for long life, fully weatherstripped and feature a positive watertight sill that also eliminates uncomfortable drafts and expensive heat loss. As in all other MALTA units, sash is easily removable for cleaning or painting.

SEE YOUR NEAREST DEALER OR WRITE FOR LITERATURE

MAY 1954
SKIL Blade Selector quickly shows you the right SKIL Saw and SKIL Blade for cutting: Tile, limestone, aluminum, hard woods, lead, copper, composition, Celotex, stone, scoring and cutting concrete, masonry, tough alloys, plastic and many other materials.

This amazing Selector tells you which SKIL Saw is just right for your problem—which SKIL Blade or Cut-off Wheel is the right team-mate for your saw. To get yours without cost, see your SKIL distributor or send coupon below!
New SKIL Blade selector

Will Save You Time and Money—Both in Everyday Sawing and Cutting Difficult Problem Materials

(At Left) "We can see the cut...produce 30% faster with SKIL Saws"—says James Morrison, foreman, Joseph R. Farrell, Inc., Philadelphia, Pa. "We have 18 saws, all of them SKIL," says foreman Morrison. "Position of blade and balance give us maximum accuracy, easier handling and faster production. And the main reason we swear by SKIL Saws is the worm gear—it gives us more than enough power for tough cutting!"

(To the Right) "Cuts anything, gives greatest accuracy. We use SKIL Saws exclusively!"—says E. J. Griser, foreman, Elwin G. Smith & Company, Emsworth, Pittsburgh, Pa.—Specialists in roofing and siding fabrication for commercial and industrial buildings.

This firm cuts aluminum, asbestos, cement products, plastics, plastic skylight material and galvanized sheet metal.

"We've had such great success with SKIL Saws that we've standardized on this famous make," says Foreman Griser. "We now have 100 SKIL Saws in constant use."

Only "SKIL Has the Answer" Because Only SKIL Offers You All This!

9 Extra-Heavy Duty SKIL Saws

—with high-torque worm drive. The favorite type for over 25 years on heavy ripping, tough metal and compositions that no other saw can handle. Absolutely minimum maintenance in heaviest service. Blade diameters from 6" to 12".

3 Heavy Duty SKIL Builders Saws

—with high blade speed. Low in cost, light weight and easy to handle. The new SKIL Builders Saws are ideal for quick cut-off work and for use with SKIL abrasive cut-off wheels. Blade diameters: 6", 7¼", 8¼".

98 Specially Designed SKIL Blades and Abrasive Cut-Off Wheels

—carried in stock by SKIL Branches and distributors. With the proper SKIL Saw you can efficiently cut almost any material encountered in the construction field with substantial savings in time and money.

ONLY SKIL OFFERS THIS WIDE SELECTION OF SAWS, BLADES AND ABRASIVE CUT-OFF WHEELS

FREE! Ask your SKIL distributor for a SKIL Blade Selector and a FREE trial of the right SKIL Saw with the Exact SKIL Blade or Cut-off Wheel to solve your toughest cutting problem.

SKIL Corporation, Dept. AB-53
5033 Elston Avenue, Chicago 30, Illinois

☑ I would like a SKIL Blade Selector
☑ I would like a demonstration and free trial
☑ Please send literature on SKIL tools

Name

City Zone State
both sides of windows can be washed from the inside with the new Grand Rapids Ven-Trol-Gear

The popular new Grand Rapids "Ven-Trol-Gear" opening mechanism for window ventilating panels in the modern multi-panel window systems offers many exclusive advantages that appeal to owners of residential, monumental and commercial buildings. It swings ventilating panels outward and downward to any degree of opening desired to assure full view as well as the most efficient ventilation regardless of weather . . . opens and closes windows smoothly, quietly and easily . . . and permits easy washing of both sides of the window panes from the inside. See other important features listed below.

Ventilating Panels open outward to a full 90°. Ven-Trol-Gears are available in 5 sizes handling a minimum of 15 openings.

MOST PRACTICAL AND EFFICIENT OPENING MECHANISM AVAILABLE TODAY

**CHECK THESE FEATURES:**

1. Fingertip gear-operated control — nylon rollers assure smooth, noiseless operation.
2. Operating mechanism fully concealed including hinging mechanism.
3. Handle grip location adjustable down 15° from horizontal position.
4. Positive locking mechanism fully concealed except for operating lever.
5. Designed for use on wood or metal windows with minimum frame opening height 1’ 0” . . . maximum sash weight 40 lbs.
6. Can be used with any type of glazing up to 1” including double glazing.
7. Can be used with any wall thickness or trim as mechanism is integral part of window.
8. Quick, easy installation —exposed controls finished in antique bronze enamel with special finishes available on request.

How To Protect The Homes You Build For Life . . . against the Destructive Dangers of Condensation and Dampness!

In just a few minutes, at negligible cost, you can install Midget Louvers on soffits, gable ends, dormers, eaves or any other place where moisture is a menace. These inexpensive all-aluminum ventilating units are your safest, easiest, surest permanent protection. They will prevent the accumulation of heat and condensation . . . virtually eliminate point blustering . . . control . . . maintain the efficiency of insulation. Made in 7 sizes (1” to 6”) and 2 styles (with and without rain deflectors — both with insect screens). WRITE for full information.

"A House That Breathes is a Better House"
The aluminum louver is the original louver. Don’t accept "second best" substitutes!

MIDGET LOUVER CO.
6 WALL STREET • NORWALK, CONN.

Reach Her Heart with New, Washable Fab-rik-ona

The discerning lady in the picture is the one who’ll ask the key questions about wall coverings—including their "washability"! Together with that all-important feature, Fab.rik.ona’s smartly-hued woven textures will add depth and "feel" to your interiors—supplying the soft beauty that makes rooms continuously livable, and the year-after-year wear that makes them practical. You’re sure to please her with Fab.rik.ona’s rugged textured Burlap, or the more subtly woven Amerspun.

Send for booklet with samples.

H. B. WIGGIN’S SONS CO.
56 Arch St., Bloomfield, N. J.

American Builder
In the spring of 1953, over two dozen different brand names of packaged cooling units for homes were commercially available, and every week brought news of other models that were to be offered on the market. These units were packaged into compact casings about 2x3x5-feet in size, and were designed to be attached to existing forced-air heating systems. One of the many possible arrangements of the cooling unit is shown in Figure 1. Most of the models have ratings of two or three tons of refrigerating capacity. A two- or three-horsepower motor is installed inside of the casing as part of the equipment. In fact, a rule-of-thumb index of the air conditioning industry is that each ton of refrigeration capacity calls for one horsepower capacity.

Since home builders may not be familiar with refrigeration machinery, it is the purpose of this article to explain the common cooling unit in simple terms, and to explain some of the problems facing the installer.

**Ton of Refrigeration Capacity**

One ton of refrigeration capacity is defined as the heat required to melt one ton of ice in 24 hours. Refrigeration equipment sold in the United States is rated in terms of Btu per hour. For example, in order to transform 2,000 pounds of ice at 32 F. to water at 32 F., a total of 288,000 Btu will be required. If the ice melting took place in exactly 24 hours, the hourly rate would be 12,000 Btu per hour; hence, a one-ton window air conditioner is designed to absorb heat at a rate of 12,000 Btu per hour under special rating conditions.

Some idea of the tremendous amount of ice that is required for an adequate cooling job can be gained from the fact a two-ton capacity cooling unit may be required for a six-room house of small size. Imagine a pile of forty 100-pound cakes of ice melting away in 24 hours, and some idea of the capacity of these modern units is obtained.

**Five Major Components of a Unit**

The most common form of mechanical air-cooling unit is similar in working principle to that of the electric kitchen refrigerator. The principle of operation is simple, and can be described in terms of five major components shown in the line diagram in Figure 2.

The main components consist of:

1. a compressor, which is motor operated and compresses a special gas called freon. The compressor works like a tire pump, since a high-pressure gas at high temperature is delivered at the discharge point A.

(Continued on page 160)
analysis of home cooling units

(Continued from page 159)

(2) a condenser, which has no moving mechanical parts, and in which the high-temperature gas is cooled. Sufficient cooling is applied to change the gas to a liquid at point B, where the liquid is still at high pressure.

(3) a receiver, which is essentially a storage chamber for the liquid freon.

(4) an expansion valve, through which the liquid freon flows and expands to a lower pressure.

(5) a cooling coil, which provides space for the expansion of the freon gas. In doing so, a large temperature drop of the gas occurs. At point C the gas may be as cold as 40°F, but not so cold that frost will form on the outside of the cooling coil. By circulation of room air over the outside of the cooling coil, the heat from the air is transferred to the freon gas. At point D the gas will be at low pressure, but will have warmed a little and is ready to be compressed again.

The freon gas and liquid circulates through a closed piping circuit which must be leakproof in order to prevent the escape of this expensive liquid. In the commercial units now available, all of the component parts shown in Figure 2 are factory-assembled and factory-tested against leaks. Commercial units are available as a single package of assembled components to which connections for electricity, water, drain, and air are made, as will be described in the following paragraphs.

The Cooling Coil

The cooling coil, or evaporator as it is frequently called, permits hot moist air to enter on one side and cool dry air to leave at the other side. The air is transmitted to and from the cooling coil through ductwork by means of either the furnace fan, or a special fan as shown in Figure 3.

When the hot moist air passes over the coil, which functions somewhat like an automobile radiator, the air is not only cooled but also dried. The moisture that condenses on the coil is permitted to fall on a drip pan and is led to a drain.

Since the duct system for forced-air heating can also serve as the duct system for handling summer cooling air, the initial cost of summer cooling equipment will not be as great as for those cases where ducts are not available. The air flow rate required for summer cooling is frequently larger than that for winter heating. If the existing ductwork in a forced air heating system is not a free flowing installation, the furnace blower may not have sufficient capacity to handle the summer air rate without increasing the speed of the blower. Since an increase in blower speed will result in marked increases in power consumption of the motor, other means must be sought to increase the air flow rate. The best recourse is to add additional branches to the duct system, with a larger number of registers in use, and thereby reduce the pressure against which the blower must operate. This additional expense may not prove necessary if the original forced-air duct system was properly installed in accordance with the recommendations of Manual 7 of the National Warm Air Heating and Air Conditioning Association.

The Condenser

The condenser is a simple device for cooling the hot freon gas to a liquid. In a popular commercial model, the cooling water flows through a bundle of tubes, over the outside of which circulates the freon gas. If a plentiful supply of cool city water is available at a reasonable cost, the water can be run through the condenser and discharged into the sewer.

The use of city water for cooling the condenser may be restricted because of any one of the following reasons:

(1) The capacity of a given compressor unit is reduced when an air-cooled condenser is used in place of a water-cooled condenser, especially when the cooling load is at a peak.

(2) An air-cooled condenser requires a duct to carry outdoor air to the condenser, a fan to move the air through the duct and the condenser, and a discharge duct to carry away the heated air to the outdoors. If the air-cooled condenser could be located in an attached garage, some of the ductwork could be minimized. At any rate, the prevailing method utilizes water-cooled condensers.

(Continued on page 162)
A New Era of Selling Demands a Powerful Sales Appeal

With Hotpoint All-Electric Kitchens and Home Laundries!

In this new era of selling, a builder should be primarily concerned with giving people what they want in their new homes. Burke & Wyatt, for the past fifteen years, has been known throughout southern California as one of the leading builders of quality, custom-built homes. Meticulous attention is paid to every detail—details which add pleasure, value, and improved marketability to the homes they build.

That's why they selected Hotpoint All-Electric Kitchens and Home Laundries for their Meadow Homes project in Palo Alto, California. Like hundreds of progressive builders in every section of the country—builders whose homes are really planned for easier living and greater enjoyment—Burke & Wyatt have learned that Hotpoint is the name that bespeaks true quality.

With the Congress changing the mortgage pattern to reduce discrimination against better houses—and FHA changing its appraisal policies—the builder has a new opportunity to put into his houses more of the features the public wants. And that means the one thing most people want—Hotpoint All-Electric Kitchens and Home Laundries.

Isn't the time right for you to add to the initial sales appeal and marketability of the homes you build? Let the Hotpoint distributor in your area work with you. He can be helpful.

Hotpoint ... Pacemaker of Progress!
analysis of home cooling units

(Continued from page 160)

Since it is necessary to be sparing of city water in many localities, a device known as a cooling tower and shown in diagrammatic form in Figure 4, is frequently employed. In this installation the water is continually circulated from the condenser to the cooling tower and back again to the condenser. The water is heated as it passes through the condenser and is cooled by evaporation when it passes through the tower. Some water is lost to the outside air by evaporation in the tower, about five per cent of the total flow.

Outdoor air should have free access to the tower which is usually located in the backyard of a home, and at some distance from the house. The initial cost involves not only the cost of the cooling tower and fan, but also for water piping and electrical connections to the fan and pump.

Current Status of Residential Cooling

The main reason for the hesitant acceptance of summer cooling by the home owner has been the lack of completely packaged units and a reasonable initial cost. Several factors are now in operation which may bring about a change in the consumer demand:

(1) the air conditioning industry has, by common acceptance, standardized on three sizes: two-ton, three-ton, and a five-ton capacity.

(2) mass production techniques.

(3) the availability of competent installers and service men must increase.

(4) widespread sales campaigns have been started by a number of concerns.

(5) home owners, builders, and architects are being instructed in the necessity of preparing the house for summer cooling by reduction of all sources of heat gain.

"HARVEY IS SO SORRY, ---HE THOUGHT IT WAS A FOLDING DOOR."
"...a house they say should be expensive but isn't."

Reynolds Aluminum Reflective Insulation

Reynolds has been a pioneer in insulating by radiant heat reflection...the modern bulkless way, now swiftly gaining preference. And Reynolds Aluminum Reflective Insulation remains the simplest, easiest to apply, lowest in cost. Much lower cost than most bulk insulations. Perfect vapor barrier, too! Aluminum foil bonded by special pressure-embossing to both sides (Type B) or one side (Type C) of tough kraft paper. In rolls of 250 sq. ft., 25", 33" and 36" wide. Write for literature.

Reynolds Metals Company, Building Products Division, 2003 S. Ninth Street, Louisville 1, Kentucky.

SEE "MISTER PEEPERS," starring Wally Cox, Sundays, NBC-TV Network.
AMERICAN BUILDER's 75th Anniversary Issue Presents
1879-1954 DIAMOND JUBILEE AUGUST 1954

in flashback and FORECAST

plan now to be represented in this historic issue

Final Closing Date JUNE 25th

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FREE send today for 16-page folder fully describing this interest-packed Anniversary Issue . . . and its value to you as an advertiser.

Published for the Light Construction Industry for the past 75 years . . . A.R.F. Readership Study proves
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manufacturers...

AMERICAN BUILDER's 75th Anniversary Issue will create industry-wide interest and comment. It will, without question, be one of the most thoroughly read issues of the year OF ANY INDUSTRY PUBLICATION. This means that you will have the readership and interest of the entire industry at your command! Why not put it to work for you . . . and cash in on its tremendous potentialities? The best way, of course, is to tell your story in this interest-packed AMERICAN BUILDER Anniversary Issue. Use adequate space—even multiple pages—in telling your complete story . . . building an association between the growth of the industry and YOUR company, its products, etc. Don't let this opportunity slip by . . . there will never again be such a terrific goodwill and sales-builder available to you!

100 years of american shelter

a preview of the next 25 years...

plus the story of 75 years of development in light construction

- the light construction industry and its market: today and tomorrow
- factors behind the evolution of housing
- the changing house: design and planning . . . utilities and construction
- the AMERICAN BUILDER: our life and times
- an industry is born
- . . . plus many more topics of equal interest to builder-readers!

Here is another FIRST for AMERICAN BUILDER . . . an editorial epic presenting the keeneest analysis of the future to be published in many a year . . . as well as a chronological record of the sentimental past! AMERICAN BUILDER . . . in its precedent-breaking 75th Anniversary Issue . . . will present a huge, interesting and accurate editorial panorama . . . in flashback and FORECAST . . . of 100 Years of American Shelter. It will be a projection of things to come in the next 25 years . . . as well as a record of historical fact of the past 75 years . . . from the early beginning of gaslights and wood-burning stoves to the era of all-electric, entirely air-conditioned homes. Here in editorial form, will be expounded the amazing, dynamic potentialities of this, the world's largest industry!
Save money on every housing unit you build—save thousands on your building projects—and still provide the most even, automatic comfort known!

General Motors' knowledge of mass production methods is being applied to the manufacture of Delco automatic home heating units. Automobile-type assembly line production permits cost-slashing short cuts without sacrificing quality.

And look how Delco helps you meet contract deadlines by cutting down on total building time. Pre-assembled units save work on every single installation. Only the burner needs to be inserted, and you have a ready-to-operate furnace!

General Motors' thorough knowledge of combustion engineering enables Delco-Heat units to get more heat from fuel. All of this gives you an outstanding opportunity to stress lower heating costs for your customers and complete satisfaction with every system you install.

Don't overlook the extra sales-appeal you add to your homes when you include the General Motors name in your advertising. You don't have to sell customers on General Motors quality. America's leading automobiles have been doing that for years!

So, whether you are calling for heating bids or submitting them yourself, be sure to get in touch with your Delco-Heat distributor. Call him today for complete information on the Delco line. Or write: Dept. ABH, Delco Appliance Division, General Motors Corp., Rochester 1, N.Y.

In Canada, Delco-Heat, Toronto 13, Ont.

New horizontal Delco-Heat unit—Model OPC 75Z. Suspend from overhead joists or install in crawl space. Capacity 75,000 Btu. 72½" long by 25" square. Delco coordinated controls, high pressure oil burner and Quik-Action Heat Transmitter for better combustion and operating economy.

Compact oil fired "builder model" offers new low prices for project sales! Value leader Model OBC 75H is a Conditionair package unit with 75,000 Btu output. Designed for space-saving installation. Features exclusive Delco wrap-around design, steel cabinet and Circle-Air Radiator that adds extra heating surface—improves efficiency. Quik-Action stainless steel combustion chamber, Delco-Heat Pressure Oil Burner. Low models, and reverse flow models for perimeter heating, too.

Sensational new 90,000 Btu Delco-Heat gas fired Conditionair—Model GBC90-H. Compact, only 25" x 25" x 67". AGA approved for minimum clearance installations. Low and counterflow gas Conditionairs also available.

For a good deal—deal with Delco!...a complete line of automatic oil and gas fired conversion burners, Conditionair forced warm air furnaces and heating and cooling units, boilers, water heaters and electric water systems.
a mortar to withstand fire?

What can I do with a fireplace in my yard that burned out? The mortar, bricks and stones fell apart. I know that there are several types of fire-clay linings. Is there some type of mortar that can be used that will withstand heat too?

N. A. D., Green Bay, Wis.

There is a fire-clay mortar which could be used if the firebox of your outdoor fireplace were completely protected from weather. In mixing fire-clay mortar, sufficient water is added to the fire clay to produce a plastic mix which can be spread on the brick or "buttered" with a trowel. Such a mortar, however, could not be used in an exposed location.

It would seem that the deterioration of mortar in your fireplace is due more to the action of weather than to fire. Moisture probably enters into the wall. Later, freezing and thawing of the moisture takes place. The result is the breaking up of the mortar.

Line the firebox with a high absorption brick laid with a full bed and head joints of 1:1:6 mortar (1 part portland cement, 1 part hydrated lime and 6 parts sand by volume). The brick should be wet when laid to reduce initial suction and to develop complete bond between brick and mortar.

If a low absorption, dense brick is used as a liner, the thermal shock to which they would be subjected when a fire is built will often cause them to shatter. High absorption brick are therefore preferable.

Structural Clay Products Institute

as cheap as possible
— but well built!

I am planning to build rental cabins in the following sizes: 20x20 feet, 18x20 feet, and 16x20 feet. We want to build them as cheap as possible and still have good construction. What should the roof pitch be? How far apart can the rafters be? How far apart can the floor joists be? How far apart can the studs be?

J. S., Minneapolis, Minn.

Use a 3 on 12 pitch for each of the three spans. Here are the sizes and the spacing for 16-foot, 18-foot and 20-foot spans using #1 yellow pine:

(A) 16-foot span:
- Slope—3 on 12, min.
- Rafters—2x4 inches @ 24 inches o.c.
- Floor joists—2x10 inches @ 20 inches o.c.
- Studs—2x4 @ 16 inches o.c.

(B) 18-foot span:
- Slope—3 on 12, min.
- Rafters—2x4 inches @ 20 inches o.c.
- Floor joists—2x10 inches @ 12 inches o.c.
- 9-foot span—2x6 inches @ 20 inches o.c.
- Studs—2x4 inches @ 16 inches o.c.

(C) 20-foot span:
- Slope—3 on 12, min.
- Rafters—2x4 inches @ 16 inches o.c.
- Floor joists—20-inch span—2x12 inches @ 16 inches o.c.
- 10-inch span—2x6 inches @ 16 inches o.c.
- Studs—2x4 inches @ 16 inches o.c.

K. Roderick O'Neal & Associates, Architects and Engineers
INTRODUCING THE

Contemporary

LONG...LOW...AND LIVABLE

This is the new Pollman Contemporary designed by Richard B. Pollman, America's noted designer of small homes. Tailored for the "young in spirit", it is as up-to-date and smartly styled as the cars we drive—or the clothes we wear. Factory assembled from quality materials and built according to conventional standards, it appeals to the most practical-minded buyer.

Write today! Learn why Pollman Homes are more profitable to build—easier to sell—and a better investment for the future.

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For information about the Pollman Southerner Line of homes for Southern and Gulf Coast States write

THE THYER MANUFACTURING CORPORATION  •  418½ E. PEARL ST., DEPT. 5  •  JACKSON, MISSISSIPPI

MAY 1954
**BATHING BEAUTY...**

**MADE OF CONCRETE**

Attractive lines and a pleasant appearance are natural characteristics of swimming pools made of reinforced concrete. Such construction means lower costs and easier installation for home owners. It represents a sound, long-term investment for operators of large-size pools.

Swimming pools constructed with reinforced concrete have these advantages:

- Easily shaped into unusual forms.
- Seamless, watertight construction.
- Smooth, uniform surface for easy maintenance and sanitation.
- Long-lasting strength and durability.

Concrete, reinforced with Clinton Welded Wire Fabric, provides these benefits. Clinton Welded Wire Fabric is made of strong steel members closely and uniformly spaced for proper load distribution and added strength. It meets all A.S.T.M. requirements and is available in proper sizes and weights for all reinforcing requirements.

---

**THE DAMP BASEMENT PROBLEM**

Is there a type of paint which will thoroughly waterproof a cement floor, or is there some other method which can be used to remedy a damp floor? Must the entire floor be chopped up and a new one laid?

F. T. B., Bloomfield, N. J.

From your letter it would appear that the dampness of the basement floor is caused by faulty construction rather than simply condensation. There are two remedies we can suggest: One is to install drain tile around the footings of the house; the other is to construct a new floor over the old with a layer of insulation between.

Both methods will involve some inconvenience. Installing drain tile will mean the uprooting and loss of bushes and other landscaping next to the house. Putting in a new floor will mean that the basement doors will have to be changed and the furnace probably raised.

The location of your house will probably determine which course to follow. If the house is located on the side of a hill, the system of intersecting drain tile will probably be best. Tile should have a slope of about 1/2-inch in 12 feet. Tile should be laid with open joints which are covered with roofing felt or other suitable materials to prevent soil or dirt from entering during backfilling. Coarse gravel or crushed stone, ranging in size from 1-to-1 1/2 inches should be placed over the drain tile to a depth of at least 12 inches.

If the area is poorly drained, a new floor may be required. The old concrete floor should be mopped with hot bituminous material and then a waterproofing membrane laid on, covering the entire floor and extending about 12 inches up the sides of the wall. This membrane can consist of two layers of roofing felt mopped between and on top with the same hot bituminous substance. On top of this, the new floor slab is laid. This should be at least 2 1/4 inches thick and reinforced with wire mesh weighing about 20 pounds per 100 square feet. After the floor is laid, the roofing felt that extends around the edges can be trimmed off.

If there is only a small amount of water seepage through basement walls, occurring during a few short periods of each year, this may be corrected by applying two or three coats of portland cement paint on the interior surface of the wall. It is not designed for use on floors, however.

---

**How much moisture in wood?**

What percentage or degree of moisture should be in wood which the builder uses for the house frame?

R. K., New York, N. Y.

Moisture content of lumber for house framing can vary from 12 to 19 per cent. Twelve per cent lumber is kiln dried and is naturally preferred over lumber with a higher moisture content, such as, air dried which is normally in the 15 to 19 per cent range.

Moisture content of lumber will

(Continued on page 172)
700 homes in one area
priced as low as
$10,995
now being built with
Gas Air-Conditioning
throughout

The nation's largest air-conditioned housing project uses Gas. Why?
Part of the reason is the big Gas plus: one fuel, one system. But there's even
a stronger reason. The builder realizes 700 homes aren't going to be sold
overnight; in fact they aren't even going to be built overnight. People will be living
in some of the houses for months before their new neighbors move in.
And word gets around as to how satisfactory an air-conditioning system is.

Gas air-conditioning has everything. The simple positioning of the
cooling-heating lever changes it over from Winter heating to Summer cooling.
The air is then refrigerated, cleaned, dehumidified and circulated... all through the house. The heating and cooling units have no moving parts
to vibrate or wear out; in fact, they carry a 5-year warranty.
And operating costs are low.

Can you afford it for your homes? Ask yourself, rather, can you afford not to have it. Air-conditioning is now the great demand in building.
It almost pays for itself by relieving you of the necessity for installing movable
windows, screens, attic fans, porches, fireplaces.

Then, too, your local Gas company has the know-how to advise you on
every step of this operation. As you know, Gas heating is greatly preferred
throughout the country. Why not add the easy plus of air-conditioning in
one trouble-free unit?

SERVEL Gas air-conditioning and
heating unit being used in the
Arkansas development and in
countless other homes. 2-ton unit
shown is 27½" wide, 46" long, 74½" high—occupies only 8.7 square feet
of floor space.

only Gas gives greatest year-round comfort

GAS—the modern fuel for automatic cooking...refrigeration...water-heating...house-heating...air-conditioning...clothes-drying...incineration.

MAY 1954 171
5 Contractors tell why they make higher profits with American

NEW YORK. "My 12 men demand American machines," says Alfred Dumaresq, of Lindenhurst, Long Island, in business 19 years. "With American Machines the sandpaper seems to last longer. I just purchased my 9th American Machine as I want only American Machines and supplies. Super 8 is tops!"

RHODE ISLAND. "Three generations of my family have continuously used American machines," says Robert Lamoureux of Woonsocket. "A good measure of our success is due to dependability and efficiency of American machines, to American Floor Finishes and to American's prompt service."

TENNESSEE. "I prefer American to any other equipment," says J. Kirby Carter of Nashville. Mr. Carter started his own flooring company nine years ago. From a one-man operation, he now owns 31 pieces of American equipment, has 7 trucks and employs 25 workmen. He sands floors and also installs floor coverings.

FLORIDA. "American Machines are toughest and fastest sanding machines I have ever run," says Ralph Coleman of Jacksonville, who has used American machines 18 years. "Any floor contractor can get more dollar value out of the operation of American equipment than any other machines."

PENNSYLVANIA. "Using American Machines from start to finish for five years," says Howard B. Snyder, of Hanover. "With the speed and efficiency and precision of American Standard 8 and 12, I accomplish finest quality work with minimum effort."

You, too, will find your best buy is American—to do finest work, faster, and earn maximum dollars per job! Let us demonstrate these great machines on your next job. Of course, no obligation.

American Performance Proved MACHINES... Nation-wide SERVICE

ask the experts

(Continued from page 170)

vary with the season and local conditions, and so, no iron-clad specifications are set up. If kiln dried lumber is used, proper precaution should be taken to prevent unnecessary exposure to moisture.

Loss in moisture content in lumber causes it to shrink, which can cause some shrinkage cracks in the finished house. However, the end shrinkage of lumber is very small as compared to the cross-sectional shrinkage, and as most framing depends on the length of the pieces, your shrinkage is not too great a factor.

Edward Hines Lumber Co.

painting hot-water pipes

Is it practical, from an insulation standpoint, to paint steel forced hot-water heating pipes with aluminum paint? If they were painted, would the usual corrugated asbestos pipe covering be at all beneficial? I have heard that the combination defeats its purpose of insulation on hot-air heating pipes. Would this also be true of hot-water heating pipes?


Painting bare pipes with aluminum paint will reduce the heat loss from these pipes by approximately 10 per cent. If any material is placed over the painted surface, the effectiveness of the aluminum paint is lost. In other words, there is no advantage to using aluminum paint on the pipes if any other type of pipe covering is to be used.

While aluminum paint will reduce the heat loss from a bare pipe by about 10 per cent, it should be pointed out that conventional pipe covering is far more efficient in reducing the heat loss from hot-water heating pipes. For example, magnesia insulation 1-inch in thickness will effect an 80 per cent reduction in heat loss, as compared to that from a bare pipe.

Dept. of Mechanical Engineering
University of Illinois

(Continued on page 174)
the sold sign GOES UP FASTER
when year 'round air conditioning is "BUILT-IN"

But make it Chrysler Airtemp air-cooled and get these benefits...

best for you because...
The many different ways to install Chrysler Airtemp Air-Cooled Air Conditioning make it adaptable to any house plan without using a single inch of living area floor space if desired.
Chrysler Airtemp Air-Cooled Air Conditioning is practical for homes where problems of water supply, water expense or water disposal would make water-cooled air conditioning impractical.
Chrysler Airtemp Air-Cooled Air Conditioning costs you less to install because it does not require plumbing.

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All problems of water supply, water expense and water disposal are eliminated by the waterless operation of Chrysler Airtemp Air-Cooled Air Conditioning.
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There's a Chrysler Airtemp Dealer near you who installs both Air-Cooled and Water-Cooled Year 'Round Air Conditioning. See him for all of the facts you should have before you decide on the system for your next homes... or return convenient coupon reproduced below.

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HEATING • AIR CONDITIONING
FOR HOMES, BUSINESS, INDUSTRY
Airtemp Division, Chrysler Corporation, Dayton 1, Ohio

THE TRULY MODERN HOME IS AIR CONDITIONED
MAY 1954
Here's Why M. J. Peterson, Successful New York Builders Are Using Roly-Doors:

"In selling our new homes, we've found that Roly-Door's modern appearance, all-steel construction and easy operation are real 'sale-closers'"...Victor L. Peterson.

MORRISON

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book tells all

Please send me information on reinforced concrete work as to correct sizes of steel and concrete in ratio to length of beams, slabs, initial strength of slabs; also mathematical data necessary to figure this type of structure.

A. L. D., Weedsport, N. Y.

It would be difficult, if not impossible, to set up a few simple rules, formulas, or charts for the design of concrete without a detailed qualification for each condition. Get a copy of the CRSI Design Handbook. The price is $5 and is available by writing to the Concrete Reinforcing Steel Institute, 38 So. Dearborn, Chicago, Illinois.

Renew your subscription TODAY!

AMERICAN BUILDER
Now... Packaged Air Conditioning
for Even Lowest-Cost
Housing Projects!

... to help you SELL MORE HOUSES THIS YEAR

Complete air conditioning for homes in the lowest price range—for little more than the cost of 1 or 2 window units! That's Marvair!

Look over the features listed at right, and you'll see why Marvair is being hailed as the sales-making sensation of the year.

Amazingly easy to install, the Air-Cooled Marvair uses no ducts, no plumbing, no water-main connection, no hookup with the heating plant. It is a boon in drought areas. From every angle, it's ideal for the builder—ideal for the buyer.

Get the facts on the marvelous Marvair. Put in one or two as a test. You'll go 100% Marvair when you see how they sell!

- Unbelievably low first cost and installation cost.
- Air cooled—uses no water, needs no plumbing.
- Fits any one-story floor plan with central hall.
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- Refrigeration circuit covered by 5-year warranty.
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Complete Marvair water-cooled packaged units for use as room coolers and furnace companion units are also available. Details and engineering service on request.
We make LUX-RIGHT CASEMENT TYPE
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FOR HOMES, CHURCHES, SCHOOLS, ANY BUILDING

This Imperial LUX-RIGHT Streamlined Straight Type Steel Area wall (above) comes in all standard sizes. Round type also supplied, casement type, too.

Only metal areawall hot-dipped galvanized AFTER fabrication. One piece, heavy corrugations, beaded top edge, Hug- Tite flanges.

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An inexpensive factory reconditioned machine for easy estimating, checking lumber and supply bills. Figures payrolls, percentages, discounts, taxes, costs, etc.Adds, subtructs, multiplies and divides.

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how would you do it?

ideas for the man on the job

insulate the glass panel of a door—

Use a piece of single-strength glass which will extend slightly beyond edges of the glass area of the door. Fit the glass to the door with strips of 1\(\frac{1}{2}\) -inch molded door stop. This will insulate the glass panel of an exterior door on which there is no storm door. Double glazing of this sort will stop condensation of moisture which often runs down over the woodwork, causing a break in the glue bond when the door expands.

—P. R. Kersten, Greensburg, Pa.

make a marking gauge for siding

When fitting siding between windows or between a window and a door, make a marking gauge from a piece of stock about 10\(\times\)2x1 inches. This will fit 8-inch siding. If siding is wider than 8 inches, merely cut gauge from a longer piece. Cut a wedge-shaped piece to form gauge.

Slip the gauge over the siding that you want to cut and fit. Place one edge of siding against trim of one window. Slide gauge over siding against trim of other window and mark for cutting.

—A. Springman, Montoursville, Pa.

Cash for job shortcuts—send yours today!

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Gain top performance and economy in ceiling radiant heating systems

Performance-proved in thousands of radiant heating systems, Bundyweld Tubing brings you not only top performance, but appreciable savings in material costs and fabrication time as well.

Check these plus-features: Bundyweld is extra-strong, yet ductile; bends easily to short radii on a simple fixture in the shop or at the job site. It comes in standard, 20’ lengths with one end expanded, when specified, for simpler, sounder joining.

Bundyweld can be handled pretty roughly without danger of damaging it, too. It’s lightweight enough (100’ of 1/2” O.D. weighs only 10 lbs.) and rigid enough so that two men can easily position a group of joined coils. Then, the smooth, flat-lying coils can be speedily plastered, with no waste motion, no waste material.

In your completed system, Bundyweld transmits heat efficiently, conducts water with a minimum of friction. Just check below to see why Bundyweld is the only tubing that can offer you all these advantages. Then write us today for more information.

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DOUBLE-WALLED FROM A SINGLE STRIP

WHY BUNDYWELD IS BETTER TUBING

Bundyweld starts as a single strip of steel which is copper-coated. Then, it’s...
continuously rolled twice around laterally into a tube of uniform thickness, and passed through a furnace. Bonding metal fuses with basic metal. Result...
Bundyweld, double-walled and brazed through 360° of wall contact.

NOTE the exclusive Bundy-developed beveled edges, which afford a smoother joint, absence of bead, and less chance for any leakage.

MAY 1954
Sterling Hardware designed to last a house tim e

How would you do it?
ideas for the man on the job

Place conduit in concrete block

Wherever an electrical convenience outlet is to be installed in the wall of a concrete block structure, keep the concrete block openings clear of mortar for conduit. This can be done by placing a stick through the blocks from top to bottom.

-A. Schnur, New York, N. Y.

Cut sheet material

Use this attachment for your saw horses. The two detachable braces shown here can be made of scrap pieces of 2x2's and a piece of sheet metal for each brace. The braces fit on either end of the saw horse and can be made to any reasonable length. Braces are handy when cutting wide pieces of plywood or plasterboard.

-B. Capps, Lombard, Ill.
Sales Success Story! Here's Why Leading Builders Use LOCKWOOD

Tempered OAK FLOORING

Whether your flooring installations are in luxury class homes or in houses being built on modest budgets, whether they are contemporary or traditional in architectural styling... there's a Lockwood Oak Flooring in the grade you want at the price you want to pay! You have your choice of either red or white oak, and in either selection prospective home buyers readily appreciate the fact that Lockwood Oak Floors make interior decoration a pleasure, because they harmonize with all furnishings and materials.

Across the country come the happy reports... homes with beautiful, friendly and inviting Lockwood Oak Flooring are readily finding new owners, even while “For Sale” signs still hang on many otherwise comparable houses! The reason is simply this: there's no flooring like oak, and no other oak equals Lockwood in both beauty and economy! We invite you to visit any Lockwood installation in your community. See with your own eyes... get the facts... and then our point is proved!

You'll love this fact about Lockwood Oak Flooring: you can save up to 35% in laying and finishing costs, thanks to our Nail-Groove feature and Precision-Milling. Too, Lockwood's Kiln-Drying and Tempering make it a trouble-free oak flooring. You can lay it and forget it. You'll never hear a complaint because of floor cracks or warping in a home with Lockwood Oak Flooring. Our Oak Flooring is that good. We've produced quality oak flooring since 1926 and we stand behind what we make and what we say.

CLOUD OAK FLOORING CO.
SPRINGFIELD, MISSOURI
QUALITY OAK FLOORING SINCE 1926
MAY 1954
CUTS COSTS! STRONGER JOB!
COFFMAN ORNAMENTAL IRON

INSTALLATION AS SIMPLE AS

Hang 8' or 9' post to soffit plate with lag screws. A choice of designs for all type construction.

Plumb post and wedge with broken brick, block, etc. Note legs extending below finished floor line.

Hang 8' or 9' post to soffit plate with lag screws. A choice of designs for all type construction.

Plumb post and wedge with broken brick, block, etc. Note legs extending below finished floor line.

Step forms built for standard steps, 7" risers x 12" treads. If you build brick steps, they will lay-up 7" x 12".

Final check before pouring concrete. Set-up time ONLY 40 MINUTES.

HERE ARE THE FACTS!

- Coffman Ornamental Iron is a packaged item—complete—ready to use.
- Coffman Ornamental Iron can cost less than brick or wood because it eliminates expensive labor at the job site.
- Coffman Ornamental Iron increases the value of the home—gives you additional profit.
- There's no waiting for "custom-built" with Coffman. Order it from your BUILDING SUPPLY DEALER as you would a load of lumber.
- Coffman Ornamental Iron cuts your costs, saves you time, makes you money!

STANDARDIZE YOUR CONSTRUCTION FOR BONUS PROFIT

Standardize your steps (7" risers, 12" treads) and use built-in-place construction for bonus profits. For off-size steps, use the simple Coffman Rail-O-Graph, available at your dealer. Remember, Coffman 8'/0" Universal height porch posts will fit most all jobs (9'/0" for remodeling jobs).

SELL NOW SUMMER ITEMS: SCREEN DOOR GRILLES, PORCH POSTS, RAILING.

R. G. Coffman Co.
ORLANDO, FLORIDA, DEPT. A.E.

how would you do it?

ideas for the man on the job

prevent efflorescence

The appearance of the face brick on parapet walls may be safeguarded against efflorescence by using asbestos board on the deck side of the wall. Apply the asbestos board after the flashing has been installed and before the deck itself is finished. Extend the flashing well up behind the asbestos board sheet. Apply the asbestos board by using mastic at the back and at edges. Nail board into mortar joints.

—A. N. Nelson, Kansas City, Mo.

ladder rungs that won't come off!

Use common 2x4's for the two upright pieces of the ladder. Notch the 2x4's to insert the ladder rungs. When notching them, hold your saw so that the finished notches will have a dovetail effect. Each rung should be beveled to fit. Force the rungs of the ladder into place from the side. One nail on either end of the rung will keep it in side. One nail on either end of the rung will hold it.

—H. E. Fey, New Braunfels, Texas
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- Full line of aluminum and/or plastic glass; modern horizontal styling; exclusive ventilation feature.
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MAY 1954
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Dura-seal
COMBINATION
METAL WEATHERSTRIP
SASH BALANCE

Dura-seal provides both complete weather protection and "squeak-less" window operation. The jamb member is made in one-piece and its concave back end is 8'-2" wide, reducing and eliminating dead air space and reducing window operation even when the air expands or contracts due to chageable atmospheric conditions.

ZEGERS INCORPORATED

Here's a new exclusive feature for Zegers Dura-seal Combination Metal Weatherstrip & Sash Balance! Counterbalancing springs are Si-Vel processed and coated to eliminate all noises. A velvet-like finish, actually baked on the galvanized steel springs, assures absolutely silent opening and closing of wood windows. It's the most important window equipment development since the one-piece jamb member... another Zegers "first"!

Get complete information on this remarkable innovation now! Builders, see your Lumber Dealer; Lumber Dealers, see your Sash and Door Jobber or Millwork Manufacturer.

A personalized name plate on the front cover keeps the builder's name before the owner, subsequent owners, their relatives and friends, which could lead to future sales. The device is equally useful to the home owner, since the need for the original plans and other pertinent data about his property continues for the life of the structure.

The Plan-Keeper is available in 24", 30- and 36-inch lengths, in either the corner or the built-in model. The inside diameter of the tube is 2'-1" inches. The cap, available with a cylinder lock, covers a pull rod for extracting the tube's contents. The cap, with its name plate, has a diameter of 4'-1" inches. A sealed gasket at each end of the tube renders the device insect-proof. Projecting ears just back of the cap provide accurate spacing for installing the device in 3'-1" or 3'-6" inch plaster ground.

The depository can be installed in both frame or masonry construction. Multiple installations have been made in many commercial buildings and in institutions. The Plan-Keeper is made by Mann Metal Products Co., St. Petersburg, Florida.
Build
Good First Impressions
into your homes!
Sell Them Faster
with recognized branded products like

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ALIGNALOCK
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Here's why
SARGENT ALIGNALOCK
is the BIGGEST VALUE in Low Cost Locks!

Compare it for price... for appearance
... for design... for that "feel" of quality
... for protective features
... for EVERYTHING that you want!

ALIGNALOCK is backed by the famous...
SARGENT of NEW HAVEN! It is the kind of
branded hardware that home owners and home
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ALIGNALOCKS are available in all the
functions you require.
2246AS Entrance door set without
guarded latch bolt.
2205AS Entrance set with guarded latch
bolt.
4122 Grip handle for entrance sets.
2264AS Bedroom or patio set (without
emergency key).
2265AS Bathroom set (with emergency
key).
2215AS Passage set.
2293AS Knob pull.

Beautiful appearance! In polished brass,
bronze, aluminum, polished chrome for split
finishes.

Balanced design! Two big
solid brass knobs... both with the
"feel" of quality. No unsightly holes
for emergency keying or locking
buttons.

Fully guaranteed! This Sargent
Guarantee Certificate, displayed in
new homes, indicates quality
throughout.

NO OTHER LOCK CAN BE INSTALLED
FASTER THAN AN ALIGNALOCK!

Self-aligning assembly
allows even non-skilled help to install AlignaLocks
easily, accurately and economically.

Special installation tools!
Available is a strike indicator, centering
tool, boring jig and mortising tool
for face plate.

Small cross bore... only 1 3/4 inches required.

Greater projection of bolt gives mechanics
more leeway with loose fitting door frames.

Phillips's Head Screws have a neater
appearance, speedier installation.

ONLY HIGHEST QUALITY MATERIALS
ARE USED IN ALIGNALOCKS

No die-cast parts. Concealed working parts
made of pressure-formed metals. No easily cracked
zinc die-cast parts.

Rugged steel case!

All working parts, except the cylinder, are in
the rose. Knob contour is unbroken.

EASY ON THE LATCH... FIRM ON THE KNOB

TWO springs instead of one! Both springs
work against knob action... only one works
against latch.

Smooth, positive bolt and knob action!

Automatic unlocking! In bathroom or bed-
room functions, if door is closed with the lock
"on", it unlocks automatically. Won't remain
locked if door accidentally closes.

Emergency unlocking! Even a paper clip,
inserted in small hole in exterior rose of bathroom
set, releases lock.

All from one source! Sargent offers you a
complete line of quality builders' hardware. One
source... one invoice... unity of design and finish
in all hardware required.

For complete information about the new line of
Sargent AlignaLocks, and free literature for your
prospective home buyers, see your supplier at
once. Or write us.

Hardware of Character
SARGENT & COMPANY
New York • NEW HAVEN, CONN. • Chicago
new products

JALOUSIE WINDOWS AB55403
LuVent double-strength jalousie windows are constructed with an insect-proof seal between the window frame and screens, a rigid frame, lifetime plastic strip between glass and frame which seals out weather, counter-balanced louvers, overlapping glass-holding clips and special glass tension springs which prevent rattling. Weather Products, Inc., Dept. AB, 1047 F. 27th St., Hialeah, Fla.

PLYWOOD SIDING AB55417
"Texture One-Eleven" is the name of a new fir plywood product for siding. Full-size panels of two patterns are available. Pattern 16/2, shown at left, has a 16-inch net width, rabbeted both sides, with grooves 2 inches o.c. Pattern 32/4, on the right, is a panel 32 inches wide, rabbeted both sides with grooves 4 inches o.c. Panels are made with waterproof glue in eight- and 10-foot lengths; shorter lengths are also available. "Texture One-Eleven" is shipped in durable corrugated packages. Douglas Fir Plywood Association, Dept. AB, Tacoma Bldg., Tacoma 2, Wash.

PREFABRICATED HOUSE STRESSES OPEN PLANNING AB55401
This new, three-bedroom prefabricated house is designed for year-round air conditioning. It is planned for a builder's sale price in the $14,000-$19,000 range, depending upon locality. Price includes lot, a Carrier air conditioning unit, Youngstown kitchen cabinets and sink and a kitchen exhaust fan. The test model has redwood and asbestos siding: was built with a crawl space. House, however, can be constructed on slab or with basement. In living room, family room and kitchen, ceiling follows the roof line. Kitchen area is separated from living room by an eight-foot storage wall, opening toward the living room. Built-ins include a drop-down desk in the storage wall, Formica top dressing table in the master bedroom and a laundry hamper beneath one of the lavatories. Closets throughout the house, including two in entrance hall, have full-height sliding doors. Additional storage is provided in carport. American Houses, Inc., Dept. AB, 165 W. 46th St., New York, N.Y.

DIAPHRAGM PUMP AB55409
This two-inch, power driven unit weighs only 185 pounds. The pump waterbox, frame and jackshaft support are combined in a one-piece welded steel section which offers great strength and resistance to shock. Pump shaft and crank pin run in roller bearings. Shaft is hardened, heat treated and precision ground.
Both suction and discharge connections are arranged for optional use of 2- or 2½-inch hose. Connections are tapped 2 inches inside and threaded 2½ inches outside. A cleanout provides access to discharge valve and water passage. Power is transmitted through enclosed gears, requiring no adjustment. Unit is enclosed in a metal housing which gives weather protection. Hinged covers at both ends provide complete accessibility to pump and engine. C. H. & E. Manufacturing Co., Dept. AB, 3894 N. Palmer St., Milwaukee 12, Wis.

ASPHALT TILE AB55414
Sixty new patterns, including three different style lines, have been added to the manufacturer's floor and wall covering products. Patterns include 22 linoleum, 14 felt-base, nine in linoleum tile and six in wall covering. A Flagstone Asphalt Tile development (illustrated) consists of simulated flagstone tiles in various jig-saw-piece shapes, factory cut to fit tightly into different size openings in an 18-inch square framework or grid. No special tools are required for installation.
Three color schemes have been introduced, combining plain, straight grain and swirl marbledized effects, adapted to the current trend to "outdoor look" materials in residential and commercial building. The Flagstone Asphalt Tile may be installed below grade as well as on ground level and suspended subfloors. Armstrong Cork Co., Dept. AB, Lancaster, Pa.
"Service-Master saves me up to one hour of service time every day."

Service-Master
THE IDEAL BUILDING,
PLUMBING, AND ELECTRICAL
CONTRACTING SERVICE BODY

Here’s the body that takes a completely equipped shop to the job, and saves up to 75 minutes per day. Using the latest average service base rate of 6 cents a minute and an average saving of 30 minutes a day . . . Service-Master saves $478.00 worth of time a year. Available in sizes for ½, ¾, 1, and 1½ ton chassis — regardless of age or make. The coupon below will bring complete details, with no obligation to you.

MAKE YOUR PICK-UP TRUCK
A SERVICE TRUCK, TOO!

These easy-to-install tool and material compartments are finished in baked-on, medium-dark green enamel. Parts bins are built-in. Doors have slam-action catches, with locks keyed alike. Available with overhead rack.

McCABE-POWERS AUTO BODY CO.
3900 No. Broadway • St. Louis 18, Mo.

Please send me complete details on:

SERVICE-MASTER ☐ SERVICE-TWINS ☐

Name ____________________________

Company ________________________

Address __________________________

City & State ________________________

FOR MORE INFORMATION
USE COUPON, PAGE 214

new products

AIR CONDITIONERS AB55404
The "Capri" window-type room air conditioners are available in ½-, ¾-, and 1-ton capacities. Custom styling in mar-resistant green-gray finish is said to blend with most room decors. Units are designed for year 'round living. They are equipped with draft-free louvered that are individually adjustable to direct the flow of conditioned air. Controls are concealed beneath cabinet lid. Built-in thermostatic control provides variable cooling.

The units remove up to three pints of moisture per hour, exhausting stale air and maintaining dry, cool comfort. The intake filter, one-inch thick, removes dirt, dust, pollen and smoke from the outside air. A two-speed compressor is hermetically sealed. Units have enclosed motor, lubricated for life, and are UL and CSA approved. Frigid Incorporated, Dept. AB, 128-168 32nd St., Brooklyn 32, N.Y.

BRICK VENEER PROCESS AB55423
A new brick siding process, called Quikbrik, consists of a mixture of non-fading crushed brick with cement, which is trowelled on a wall over a soft cement base. Patented jigs and forms are used in conjunction with a monorail track fixed at the top of the wall to form separate series of vertical and horizontal mortar joints. The process is stated to be less expensive than ordinary brick veneering and offers the same durability. Dealerships are available from the licensor. American Cement Products, Dept. AB, Detroit 38, Mich.

Owens-Illinois Glass Block are handled in the same way as cement blocks — same mortar, same laying technique. They go in at the same time, or they can be used for remodeling jobs.

Glass Block arrive on the job site packed in sturdy cartons of convenient size. Cartons can be opened as block are needed. No loose block for you to handle.

Owens-Illinois Glass Block

EASY TO HANDLE

EASY TO STORE

EASY TO SELL
Let Owens-Illinois Glass Block help sell your homes faster by adding visible evidence of extra value. Tell your customers that a panel of glass block has the insulating efficiency of an 8-inch thick brick wall. The panel won't frost or sweat in winter... provides better insulation than a window with storm sash. Point out block are hard to break . . . easy to clean.

For information or help with a specific problem, write Glass Block Division, Owens-Illinois, Dept. AB-5, Toledo 1, Ohio. *Formerly known as INSULUX.

Owens-Illinois
GENERAL OFFICES TOLEDO 1, OHIO

AMERICAN BUILDER
With Homelite Carryable Generators...

contractors are now operating cost-cutting, labor-saving, one man high cycle electric concrete vibrators. Note the absence of special staging normally required for both operator and gas-engine powered vibrators. The Homelite generator stays on the ground, out of the way of the actual pouring operation and is easily moved to any spot where needed. Homelite generators also provide power for money-saving electric drills, saws and flood-lights. For complete information, write

HOMELITE CORPORATION
505 RIVERDALE AVENUE • PORT CHESTER, N. Y.
How to make a prospect


1. Wall Paneling
2. Hold-all wall cabinet
3. Turtle hassock
4. Knotty pine folding table
5. Radio-TV and record storage and player combination cabinet
6. Slide-opening partition
7. Upright magazine rack
reach for a checkbook

Material for a work, play or guest room paneled in the ¼” Weldwood Idaho knotty pine you see here costs only about $38 for an 8' x 12' wall. It's worth many times as much in sales appeal!

Can you imagine any feature in a home capable of putting more pressure on a prospect to sign the contract than a room such as the one you see here? When you finish a work, play or guest room in beautiful Weldwood knotty pine you put the prospect's entire family on your side, including Dad.

IT COSTS SO LITTLE, TOO! The handy 4' x 8' panels are quickly installed, cut with virtually no waste.

Knotty pine lumber makes a satisfactory job; in fact, we manufacture this material in large quantities. However, when a really fine knotty pine installation is required, Weldwood genuine Idaho knotty pine paneling is the answer. The large sized panels minimize joints and are decoratively attractive by reason of their small, well-spaced knots. The panels are easy to keep clean and do not include deep grooves which harbor dust and dirt. Best of all, you can guarantee Weldwood knotty pine paneling for the life of the home.

If you feature a finished and furnished sample home as part of your promotion, we will be glad to send you instructions for making everything you see in the room above; just clip the coupon.

DON'T FORGET OTHER WELDWOOD PRODUCTS—exotic blond Korina®, mahogany, birch, walnut, oak—are some of the beautiful hardwoods available. Also, Weldtex®, Surfwood®, Novoply® and easy to install Plankweld®, ranging in price from as little as $23 for an 8' x 12' wall; Novoply Sliding Door units, too, which stay flat always.

There is high quality Douglas Fir Weldwood in interior and exterior types—the popular priced panels of 1000 uses.

For further information, see your local lumber dealer now or contact any of the 72 United States Plywood Corporation or U.S.-Mengel Plywoods, Inc. distributing units in principal cities or mail coupon.

Weldwood®
United States Plywood Corporation
World’s Largest Plywood Organization
55 West 44th Street, New York 36, N. Y.

Weldwood plywood for interior use is guaranteed for the life of any house in which it is installed.

IN YOUR ADVERTISING—the Weldwood life-of-the-building guarantee has tremendous sales appeal! Use it in your newspaper advertising and promotional literature. You can even include it in your sales contract because it is backed by the world’s largest plywood organization.

IN YOUR PROMOTION—people prefer branded products backed by powerful advertising. Weldwood products are advertised in all leading national magazines. Building site display cards and promotional literature featuring Weldwood paneling in your homes are yours for the asking.

United States Plywood Corporation
55 West 44th Street, New York 36, N. Y.

FREE □ Please have your salesman contact me with full details about knotty pine paneling and other Weldwood paneling.
□ Send instructions for making features shown in room.

NAME
ADDRESS
CITY STATE
For Perimeter Heating

Now...Improved

SONOAIRDUCT®
FIBRE DUCT

3 new features!

- Wrapped in black asphalt duplex kraft
- Lined with aluminum foil
- Ends dipped in wax

at NO increase in price!

SONOAIRDUCT—the economical fibre duct, which has in two short years revolutionized installation of loop, radial and lateral slab warm air heating systems—HAS BEEN IMPROVED...

The new SONOAIRDUCT contains all the cost-saving advantages that has made it so popular with heating contractors and builders everywhere. The basic new improvements are:

SONOAIRDUCT is now aluminum foil lined for lower coefficient of air friction!

SONOAIRDUCT is now wrapped in a black, weather-resistant asphalt duplex kraft, trade-marked in the usual orange lettering.

SONOAIRDUCT is now end dipped in wax to make it more impervious to moisture!

SONOAIRDUCT will continue to be available in 27 sizes—2" to 36" I.D., up to 50 ft. long in specified lengths, or it can be sawed to desired lengths on the job. Fits all standard metal bends, elbows, registers, T's, etc. Permitted by F.H.A.

All this—at NO increase in price!

Write today for complete information and prices

SONOCO Products Company

new products

GAS WALL HEATER AB55424

"Sal-Aire" units burn any type of gas heating fuel, including manufactured, mixed, natural or L.P. gas, in a sealed chamber. Sealed vents through the wall supply outside air for combustion and discharge the products of combustion directly outdoors. These units eliminate the need for a draft-diverter, while conserving heated room air. They require no chimney or duct work and are thermostatically controlled. Heaters can be installed after construction is finished, recessed between wall studs.

Three sizes are available, offering 14,000, 20,000 and 30,000 Btu's per hour input. Each unit operates independently. Fast heat response is stated to maintain even temperatures in each room. Units are recommended as auxiliary heating for hard-to-heat rooms, additions to small homes, enclosed porches, recreation areas, etc. Their use prevents overloading or unbalancing of existing heating systems. Stewart-Warner Corp., U.S. Machine Division, Dept. AB, Lebanon, Indiana.

BELL PUSH-BUTTONS AB55405

"Keynote" line of doorbell push-buttons have piano-key action. Units are streamlined to fit narrow door trims, and are available in four color combinations to blend with exterior color schemes. All exposed parts are made of weather-resistant plastic. A special manufacturer's finish gives brass and chrome colored parts, high luster and prevents them from tarnishing or staining door trims. Edwards Company, Inc., Dept. AB, Norwalk, Conn.

For more information use coupon, page 214.

AMERICAN BUILDER
YOU NAME IT...
ROBERTS-GORDON HAS IT!

- Nationally-Known Products - AGA Approved
- Complete line of gas-fired Home Heating Equipment
- Quality Designed, Engineered, Produced
- Simple Installation plus Minimum Service

PLUS the famous patented Roberts-Gordon Spreader Flame Gas Burner...
"The standard of the industry"
the patented way of burning gas efficiently and economically.

Before You Install... SEE ROBERTS-GORDON

BUFFALO 6, N.Y.  DEPARTMENT AB
4 Big Savings

why builders switch to Upson All Weather Sheathing

This builder will tell you that "All Weather" is the best name for Upson Sheathing. Snow or rain, work continues. And that's just one saving. There are many more cost cutting features.

In fact, everything about Upson All Weather Sheathing reinforces this main point: you save, and save plenty! Here's what we mean.

1. Upson All Weather Sheathing costs less to buy, yet offers highest quality. Check price lists. Compare. You'll discover Upson All Weather Sheathing does a better job for less cost.


3. Slashes application costs two ways.

First, king sizes cover large areas with a single panel. Now two men can sheath a house as quickly as four men.

Second, exclusive CuroSeal waterproofing process permits continuous work, even in rain or snow. Absolutely safe to store outdoors, cuts storage costs.

4. Ten different sizes mean material wastage pared to almost nothing. Now one or two panels cover an entire wall area. Moreover, you can buy sheathing to fit your job.

Standard sizes: 2 x 8, 4 x 8, 9, 10, 12.

King sizes: 8 x 12, 14, 16, 18, and 20.


Upson All Weather Sheathing keeps pace with modern building methods. Use Upson All Weather Sheathing on your next job.

For full FREE details, mail coupon today!
Upson All Weather Sheathing is super strong, adds tremendous bracing strength. Save, eliminates costly corner bracing.

Only Upson offers king size sections. Work time cut 50%. Windows cut out after application, pieces used in gables.

These men apply CuroSeal waterproofed Upson Sheathing even in a snow storm. Upson is absolutely safe to store outdoors.

There's virtually no waste with Upson All Weather Sheathing. Small pieces from window cut-outs are used to finish gable.

A greater range of sizes lets you buy sheathing to fit job. Only two sections were used on each side of doorway.

Apply building paper then siding. No waiting for good weather. Try amazing Upson All Weather Sheathing on your next job.

THE UPSON COMPANY
115 Upson Point, Lockport, New York

Please rush me FREE Folder and Application Instruction Sheet on Upson All Weather Sheathing.

NAME _______________________________
COMPANY ____________________________
STREET ______________________________
CITY __________________________________
STATE __________________________________

MAY 1954

SHEATHING
PROVEN QUALITY YOU CAN TRUST
The Outstanding Steel Tape for On-the-Job Durability

The Lufkin "Leader" Steel Tape is Chrome Clad — many times more durable because the fine steel line is built up by Lufkin's exclusive process with a series of electro-platings. These platings strengthen the line, make it resistant to rust and corrosion, and protect the jet black markings that are easy-to-read against the satin chrome-white background. Line won't chip, peel or crack. Metal case is rust resistant coated, covered with durable maroon vinyl. Available in 25', 50', 75' and 100' lengths. Choice of standard or folding hook ring. Get more for your money — get the Lufkin Leader.

BUY LUFKIN TAPES — RULES — PRECISION TOOLS From Your Supply House
THE LUFKIN RULE CO., SAGINAW, MICH. — New York City — Barrie, Ont.

Symons Form Hardware for Foundation 24' x 32'
Cost $223.56

Symons Forms can be erected and stripped faster, are safer, require a minimum amount of waling and bracing, and produce better looking walls.

FORM HARDWARE SUMMARY

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>312</td>
<td>Short Connecting Bolt</td>
<td>$2.76</td>
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<tr>
<td>32</td>
<td>Long Connecting Bolt</td>
<td>3.52</td>
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<tr>
<td>544</td>
<td>Wedges</td>
<td>35.56</td>
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<tr>
<td>1300</td>
<td>Steel Straps</td>
<td>48.00</td>
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<tr>
<td>992</td>
<td>Strap Plates</td>
<td>39.68</td>
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<tr>
<td>8</td>
<td>Inside Corner Asst.</td>
<td>7.80</td>
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<tr>
<td>64</td>
<td>Water Suts</td>
<td>13.44</td>
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<tr>
<td>4</td>
<td>J. Outside Corner</td>
<td>32.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>$223.56</td>
</tr>
</tbody>
</table>

Take advantage of Symons Engineering and Sales Service. Send in the plans for your next job and get complete layout and cost sheet which will show the number of standard panels your job requires, as well as the number and size fillers and corner pieces needed, plus all form hardware necessary. Our Catalog F-9 will also be sent upon request. Symons Clamp & Mfg. Co., 4261 Diversey Avenue, Dept. E4, Chicago 39, Illinois.

new products

6-INCH JOINTER AB55412

Featuring a large table, 60 inches overall, this new 6-inch jointer has a 37 1/2-inch fence which rests on a sturdy tapered stand. Hand wheels with individual turning knobs controlling the setting of each table are located at the front of the jointer.

A balanced three-knife head, 2 1/4 inches in diameter, operates at 6,000 r.p.m., making 18,000 cuts. Heavy duty, dust-proof life-sealed bearings are used. The rabbeting capacity is 3/8-inch, with a rabbeting arm support 3 1/2 inches long, extending 3 inches from the bed. Heston & Anderson, Dept. AB, Fairfield, Iowa.

MODULAR SASH AB55411

A modular unit window called "Modernaire" enables builders to use Thermopane insulating glass as economically as conventional windows and storm sash, according to its manufacturer. It is available in both fixed and awning ventilator type sash, slightly smaller than regular panel windows. The unit comes complete with a roll-type bronze screen, eliminating framed screening, and glazed with insulating glass, which does away with the need for storm sash. They may be stacked, used singly or in ribbons.

Weatherstripping is made of sponge rubber coated with Neoprene and reinforced with spring steel to ensure tightness; two bronze sill locks hold the sash tightly against the frame. Specially designed hardware makes it possible to open ventilators a full 130 degrees, enabling both sides of the glass to be cleaned from the inside. Bronze screen can be rolled up and down like a window shade and can be locked at any point. Builders Products, Inc., Dept. AB, Box 374, Station D, Cleveland 27, Ohio.

FOR MORE INFORMATION USE COUPON, PAGE 214

AMERICAN BUILDER
10 reasons why
YOU’LL SELL MORE
Majestic
CIRCULATOR
FIREPLACES

1. Scientifically designed for best operation.
2. Circulates heat that other fireplaces waste.
3. Potent "Radiant Blades"—45% more heating surface.
4. Saves material and labor in installation.
5. Exclusive "Angle Seal" covers gap between unit and masonry.
6. Will heat one or more rooms.
7. Ruggedly built to last for a "housetime."
8. Built-in damper with patented poker-control.
9. Ample downdraft shelf to assure smoke-free operation.

For Masonry Fireplaces, Sell Majestic's Easy-Operating Dampers
Sturdy formed steel dampers that make any fireplace perform better. Proportioned for proper smoke dome design. Patented Majestic poker control! Extra tight closure for air conditioned homes. Easy to install...last for years.
Ask your jobber or write for full details.

The Majestic Co., Inc.
300-B Erie Street
Huntington, Indiana

MR. BUILDER
THE KOTA
All Extruded Aluminum Horizontal Glide
is the perfect high quality window for Low Cost Housing
ASK FOR DETAILS and CATALOG
We make 26 different style Windows for every room—for every home.

KOTA PRODUCTS INC.
ROUTE 25-A
ROCKY POINT, N. Y.

Send for our quotation on all your railing and column work. It pays!
Send sketches or ask for our suggested designs.
Designers-Crafters of Ornamental Ironwork, Fencing and Gates.
2107 FLORENCE AVE., CINCINNATI 6, OHIO

Cincinnati Iron Fence Co.
INCORPORATED

MAY 1954

New BROWNSKIN
Fiberglas-Reinforced TARPS

Fiberglas-reinforced
(actual size)

Crepes for
flexibility

Edges folded and sealed

Waterproofed! Tough 2-ply kraft impregnated with a special compound

at 1/2 the price you'd expect!

New...low cost BROWNSKIN tarpaulins with Fiberglas reinforcing for strength. They can be used over and over again wherever outdoor protection of materials and equipment is required. There's nothing on the market like these rugged BROWNSKIN Tarps...and at half the price you'd expect.
Sizes 8 x 10, 10 x 12, 12 x 16, 15 x 20. Also these widths in lengths up to 75 feet.
Send postal now for name of your BROWNSKIN Tarp dealer.

ANGIER CORPORATION
Framingham 24, Mass.

As foul-weather protection for equipment.

As waterproof shrouds over power tools.

Angier Quality Building and Construction Papers - Copperskin, Vapersel Brownskin - Lumaskin - RFD Brownskin - Glass-mat
Precision Folding Stairway
FIRST AGAIN!

now equipped with
Hydraulic Safety Checks

1. Prevent slamming on opening and closing.
2. Operate stairway silently, safely, without effort.
3. Close stairway completely.

5 YEAR written guarantee furnished with each stairway
Add safety checks to present PRECISION Stairways at small cost.

Manufactured by
PRECISION PARTS CORP.
400-AB North First Street . . . Nashville 7, Tennessee

new products

VENTILATING FAN ABS5416
The best features of the squirrel cage blower and the axial flow blade are combined in the new Marco V8 fan, according to its makers. Maximum air movement is accomplished by a blade propelled by a floating power motor designed for efficient, quiet operation.

The blade is made of aluminum alloy for lightness and durability. All parts are accessible for fast installation.

The complete unit is 3 1/4 inches thick. Standard finishes are chrome and white enamel; brass and copper are available. Motor specifications: 110 volts, 60/50 cycles, 100 watts. Discharge rating is 350 c.f.m.; free air rating: 800 c.f.m.

Marvin Manufacturing Co., Dept. AB, 3071 E. 12th St., Los Angeles 23, Calif.

LIGHTING FIXTURE ABS5415
Extra ceiling illumination and maximum floor lighting are said to be provided by the "Strato-Ray" lens, designed for use with the manufacturer's recessed fixtures in commercial and institutional installations. Prisms at the outer edges of the lens "bend" the light rays to illuminate the ceiling, while the oval-shaped center deflects the light down.

Six fixtures are available with the new lens: shallow types for horizontal lamps of 300 or 150 watts; standard fixtures with vertical lamps of 300 or 150 watts, which relamp from top or bottom; these four models are prewired for use with any standard building wire. Two models, 150, and 300 watts, are the shallow type, made of extra heavy construction for installation in reinforced concrete structures, and are not prewired. Pryne and Co., Inc., Dept. AB, N. Towye and Railpout Ave., Pomona, Calif.

FOR MORE INFORMATION USE COUPON, PAGE 214

AMERICAN BUILDER
HERE'S HOW YOU SAVE WITH FORD TRIPLE ECONOMY

You get more truck for your money in a FORD

From front to rear axle, new Ford Triple Economy saves you money all the way.

Under the hood of every Ford Truck you'll find a new gas-saving Low-Friction engine. For greater driving ease and better control there's Ford's famous Driverized Cab plus time-saving extras like Fordomatic. And every Ford has low curb weight, big load space to let you haul more every trip. For complete information see your Ford Dealer today! Or write: Ford Division, Ford Motor Co., Dept. T-23, Box 658, Dearborn, Mich.

New Ford F-100 Pickup has big, 45 cu. ft. capacity. Five transmission choices, including Fordomatic Drive...Power Braking, too...at worthwhile extra cost.

Big, one-piece curved windshield offers over 938 sq. in. of glass area for eye-saving visibility. Extra-deep side windows!

You get gas-saving power from the new 115-h.p. Clipper Six or the all-new Overhead-Valve, 130-h.p. Power King V-8.

One of the biggest pickup boxes in the 1½-ton field...45 cu. ft. capacity. All-bolted construction for extra strength.

Box floor is just over 2 feet from ground for easier loading. Locked horizontal, tail gate serves as a rigid, level platform.

New upholstery of free-breathing woven plastic is cooler, easier to clean, feels better, looks better, lasts longer.

Widest seat in its class. Non-sag springs and exclusive shock snubbers reduce road shocks 75%, cut fatigue. It's comfort plus.

King-size cab door opening—nearly a yard wide—lets the biggest drivers slip in and out easily. Leg and foot room to spare!

Fewer Brakes, now available on half-tonners, make stopping up to 25% easier. Pressure to stop truck won't break bulb.

FORD TRIPLE ECONOMY TRUCKS

MORE TRUCK FOR YOUR MONEY!

MAY 1954
For economical application just nail easy-to-handle, 16"-wide, ceiling-height panels right to the studs. You don't have to treat the joints, because they're a decorative feature with PANEL SHEETROCK.

For deluxe application apply adhesive to back of panels and press to baselayer of regular SHEETROCK Wallboard. No nailheads to conceal. When remodeling, apply panels with adhesive—right over old walls.

For decorative trim and edge reinforcement use USG Metal Trim around doors and windows, and as moulding at ceiling and wall line. Available unpainted, or painted to blend with pre-decorated PANEL SHEETROCK.

APPROXIMATE COST:
$9.00 for a 10' x 12' room.
Ask your U.S.G. dealer for further information or write Dept. AB2, Chicago 6, Ill.

**It's quick and easy**

PANEL SHEETROCK also comes in pre-decorated Knotty Pine finish, or in plain panels that take any decoration.

APPROXIMATE COST:
$44.00 for Knotty Pine PANEL SHEETROCK or $25.00 for plain PANEL SHEETROCK Wallboard to cover walls of 10' x 12' room.
So much luxury for so little cost—that's the PANEL SHEETROCK Wallboard selling story that opens eyes and closes sales for you. And when you use beautiful Striated PANEL SHEETROCK (as shown here), with the neutral-toned, straight-wood-grain finish, you realize even more economy, because you build and decorate—all in one operation!

APPROXIMATE COST: $65.00 for Striated PANEL SHEETROCK to cover the walls of a 10' x 12' room.

to add sales appeal with

PANEL SHEETROCK

The Fireproof Gypsum Wallboard

UNITED STATES GYPSUM

The Greatest Name in Building

**NEW**

**VULCAN TRIMLINE**

**RADI-VECTOR**

*Saves Time • Saves Materials • Saves Money*

*Trade-mark Reg.

**PRICE**

TRIMLINE radiation costs less. New TRIMLINE features save time and money. Fewer joints necessary, less fittings. All parts mount on one piece top and back. Front cover snaps on after installation.

**PERFORMANCE**

TRIMLINE provides the two most used types of heat. Radiant for floor level comfort. Convection for warm air throughout "comfort zone". Continuous inlet and outlet slots assure more heat output.

**ATTRACTIONNESS**

Vulcan's NEW, TRIMLINE COVER is designed for enduring beauty... built to harmonize with any residential decor. The STREAMLINED top of cover reduces apparent depth. Front easily removed for cleaning.

Representatives in Principal Cities

Write for New TRIMLINE Catalog No. 54

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**ELECTRIC SAW**

AB5421

A portable electric seven-in-one saber-type saw is designed for those who want a single, dependable unit to cut wood, metal, plastics, tile and most building materials. Good balance, visible cutting lines and rapid blade speed are provided in this unit, say its makers. The saw can be used as a band, jig, keyhole, scroll, rip, cross-cut or coping saw. Its all-purpose applications are useful to carpenters, display builders, plumbers, cabinet makers, etc.

Blades can be quickly changed to cut soft or hard woods, plywood, metal, Formica, insulation materials, etc., in any form or shape. Saw is available in two models, each with 25/60 cycle motor, a.c./d.c., 110 volts. Model 2 will cut up to 3/4-inch; model 11 has a maximum sawing thickness of 2 inches. Saw is made in Switzerland and sold and serviced in America. The American Floor Surfacing Machine Co., Dept. AB, 518 S. St. Clair St., Toledo 3, Ohio.

**HEATER-COOLER UNIT**

AB5426

"Twin-Features" is the name of a new unit which combines air conditioning and electric glass panel radiant heat. Planned for use in new homes, it is also useful to the builder or owner who wants to heat an added room or provide heat in an area where it is lacking.

The unit, 15 inches high and 26 inches wide, projects only 9 1/2 inches into the room. It utilizes a 3/4-ton sealed Tecumseh compressor, a 1,500 watt radiant heat panel protected by a decorative grille, and can be mounted on a wall or inserted in a window. Electriglas Corporation, Dept. AB, Bergenfield, N.J.

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**FOR MORE INFORMATION**

USE COUPON, PAGE 214

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**LARSEN PRODUCTS CORP.**

Dept. 6, 4934 Elm St., Bethesda, Maryland

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**HASSALL**

annular threads have

GREATER **HOLDING POWER!**

Proven in industries like shoe making, asbestos siding, underlay flooring for linoleum, pallet manufacturing, boat building, etc. The stronger grip of annular threads should solve many a wood fastening problem, maybe yours! Write for samples.

JOHN HASSALL INC.

P.O. Box 2131, Westbury, Long Island, New York

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**ESTABLISHED 1850**

Larson Products Corp.

200 AMERICAN BUILDER
CORAL—A BRIGHT NEW COLOR—adds extra appeal to that extra Briggs bathroom! It makes the most of every handsome modern fixture, including Briggs' new slant-back built-in lavatory, the Lowell.

SELL COLOR VARIETY with Briggs Beautyware! Give your customers a change of pace with two bathrooms in different colors. They have a choice of Sandstone, Sky Blue, Coral or this gorgeous Sea Green.

The extra bathroom adds very little to monthly payments—yet no other feature adds so much value to a new home! It's second to none for quicker sales, bigger profits. Folks are delighted when they see two bathrooms. They'll be even more pleased if you've specified Briggs Beautyware. These smart, modern plumbing fixtures can glamorize the entire house. Eye-appeal that lasts and lasts is a part of every durable Briggs fixture. Briggs Beautyware is acid-resistant, with handsome decorator colors that won't fade—even after years of hard use. You can always count on the high quality of popular Briggs plumbing ware.

Give home buyers the convenience of two bathrooms. And you'll find it's good business to equip them both with sales-making Briggs Beautyware!
Designed for Insulation Contractors,
this pamphlet provides inside facts on
how you can Slash Insulation Costs!

Here's what this vital pamphlet contains:

- Actual time cost figures on every insulation handling operation from factory shipment through installation. Includes (for both bulk and reflective type materials):
  - Unloading operations (2)
  - Storage
  - Loading and delivery
  - On-job application
- 12 on-the-job photos
- How to Install ALFOL
- Heat-loss, Condensation: how to block both at once
- ALFOL's five types, four widths

Whether you put in your own insulation or buy it applied from a contractor, you'll want this vital pamphlet.

For it gives you the "inside story" on insulation costs, especially those connected with handling, storage and application. These are "overhead" costs. They're often hidden, but you pay them just the same... directly, if you put in your own insulation; indirectly, if you buy your material applied.

This Cost-Study reveals what these costs are, how much they amount to... in dollars and cents! And it gives the figures behind the lower prices usually quoted by your ALFOL distributor-applicator.

Offered to builders for the first time, this 6-page folder is free. To get your copy write the words "Cost Study" on your letterhead today and send it to our Dept. AB-5.

ALFOL BUILDING BLANKET INSULATION
"FIRST IN REFLECTIVE INSULATION"

new products

WINDOW UNIT AB55407
The new Silentite "Convertible" window unit consists of a single basic unit which can be used as a right- or left-swing casement, awning window or swing-in, and hopper-type sash. A companion louver unit, designed to be used in conjunction with the basic sash unit, further increases installation possibilities. The basic unit is available in 10 sizes and the companion louver unit in five sizes, providing a size for every building requirement, according to the makers.

The unit is completely factory-assembled—basic frame set-up, operating hardware, sash, screen and insulating light installed. It has spring-leaf weatherstripping and is machined for sash locks which are included. The basic unit may be adapted to any type of wall construction by the addition of stock liners to the inside of all four jambs. Curtis Companies Inc., Dept. AB, Clinton, Iowa.

BATH TUB AB55419
The "Minocqua" bath is designed for homes in the lower-price brackets. Made of enameled cast iron, it measures five feet long and 29 inches wide. It is stated to be an ideal unit for the budget-conscious builder, as, for example, in tract developments. The tub has the same lustrous, glass-like enamel that identifies other manufacturer's products. Kohler Co., Dept. AB, Kohler, Wis.

FOR MORE INFORMATION
USE COUPON, PAGE 214

AMERICAN BUILDER
BUILDERS: The sum total of these Features is Money in your Jeans!

Westinghouse FROST-FREE*
No Defrosting
Any Place, Any Time
100% AUTOMATIC DEFROSTING

BIG 42-LB. FREEZER

18-LB. MEAT KEEPER

ROLL-OUT TRAY SHELF

½ BUSHEL VEGETABLE HUMIDRAWER

BONUS BOTTLE STORAGE

LIFETIME VINYL DOOR SEAL

HANDY BUTTER KEEPER

EGG SHELVES-IN-THE-DOOR

YOU CAN BE SURE...it's Westinghouse

FAMOUS BRAND NAME

Pays off in faster house sales!

Westinghouse FOOD FILE
REFRIGERATOR-FREEZER

Ask your Westinghouse Distributor for complete specifications.

MODEL DFG-87
8.7 cu. ft. capacity

YOU CAN BE SURE...it's Westinghouse
TRUSCON STEEL DOUBLE-HUNG WINDOWS

63 Sizes and Styles
PLUS 16 Picture Window Sizes
...IN WAREHOUSE STOCKS!

It's popular. It's economical. It's readily available.

It's Truscon's Double-Hung Steel Window. The largest selling window of its type in the world. Available for fast delivery to dealers or to job sites from Truscon's nation-wide warehouse net.


Sash and frame members electro-galvanized, bonderized, prime-coat painted at the factory. Finest hardware attached. Steel casings, stools and subsills available. Screens and storm sash, too. And now, famous KoolShade® screenshield is available with steel screen frames for use with Truscon Double-Hung Steel Windows.

Installed cost is low...cost per year of service makes it just about the most economical window buy on the market. More facts in Sweet's File; or, write for latest specifications.

TRUSCON STEEL DIVISION
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Export Dept: 932 Chrysler Building, New York 17, N. Y.

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NEW IMPROVED TRI-SAW
All-Purpose Portable Power Hacksaw
only $37.50

makes any cutting job quick . . . easy . . . economical!

Zips through wood, sheet metal, lath, plaster, pipe, nails, etc. in seconds! Attaches to any heavy duty 3/4" or 5/16" drill.

Use this sensational time and work-saving tool. You'll say it is the best portable, all-purpose hacksaw on the market.

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 BEST for BUILDERS

new products

TUB ENCLOSURE AB55410

The panels of this unit consist of flat, Fiberglas sheets with a pebbled finish. All other parts are of etched and anodized aluminum. Doors are suspended on nylon slides in the top track, resulting in quiet operation. The tub enclosure, which will fit any five-foot recessed tub, is available in five colors. Installation is stated to be simple. The Eprad Co., Dept. AB, 1206 Cherry St., Toledo 4, Ohio.

GAS-POWERED TROWEL AB55408

The "Pow'r Trow'l" is claimed by its makers to accomplish quick and efficient troweling in both floating and finishing work. The device comes equipped with 14-inch tool steel finishing trowels set in a 34-inch diameter ring. Available as extras are 18-inch floating trowels. Set in a 48-inch ring, these drive out air pockets, bring up moisture and large aggregates to provide a uniform durable surface with good traction for walks, runways and garage floors.

The unit is powered by a one cylinder, four cycle, air cooled gasoline engine. Its direct in-line drive allows high efficiency in transmission of the engine's full two horsepower and provides centered weight distribution for easy handling. A thumb throttle and cut-off switch are mounted on the handlebar; speed conversions permit quick change from one trowel to the other. Mall Tool Co., Dept. AB, 7725 South Chicago Ave., Chicago 19, Ill.

THERMO-BASE NOW COSTS LESS!

... for all these proven features:

® Delivers both radiant and convected heat ® Used on outer walls, where heat is most needed ® Occupies little space and harmonizes with room furnishings ® Even, uniform flow of warm air, eliminating the discomfort of "cold 70's" ® Fast heat - quick response, no lag, no run-over temperature ® Humidified and filtered air, in constant circulation ® Factory guaranteed layouts.

SEND TODAY!

See why there is no substitute for THERMO-BASE

THERMO-BASE Division Dept. P Gerwin Industries, Inc. Michigan City, Indiana

Please send me latest information about new low-cost Thermo-Base and name of nearest distributor.

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American Cancer Society

MAY 1954
With the Revolutionary, New

Nova Insulated Sidewalls

- Sheathing and shingling in one operation
- Finest cedar shingles
- Major savings in time, labor, materials
- W-i-d-e exposures
- D-e-e-p shadow lines

Chalk line establishes level for a course of shingles
Clip and sheathing are nailed together at each stud
Kerf in butt of shingle is engaged in clip
Only one staple secures each shingle at top

Now sidewalls can be shingled and sheathed — fully insulated — in one operation. Simultaneously, you achieve the rich architectural effect of extra-wide exposures—formerly available only through luxurious double-coursing—at a remarkably low cost. Nova Insulated Sidewalls have beautiful 14" exposures and ¾" deep shadow lines.

There are no exposed nails to rust or stain the shingles. The shingles cannot split or curl. The method saves 33% of the time, 33% of the labor and 100% of the undercourse materials otherwise required. The beauty of the finished application enhances the value of the property.

Nova Insulated Sidewalls are built with only three major materials: 16" x 96" Homasote Sheathing Panels; galvanized, 26 gauge steel Nova Shingle Clips (in 96" strips); Nova #1 Certigrade Processed Shakes (either Natural or in a choice of 9 colors).

Nova Insulated Sidewalls are eligible for FHA Insured Mortgage Loans.

The method of application is very simple — for new construction or for re-siding existing structures. May we send you the complete details? Kindly address your inquiry to Department 74.

Nova Sales Co.
TRENTON, N. J.

A wholly-owned subsidiary of Homasote Company—manufacturers of the oldest and strongest insulating-building board; wood-textured and striated panels.

New Products

STAPLING TACKER AB55413
This tacker can be used for fastening wire mesh on brick or asphalt siding strips, or attaching metal lath and cornerite on lath preliminary to plastering. The tacker is heavy enough (two pounds) to drive in staples up to ½-inch. It has a strong spring for powerful action in driving the staple flush with the work. Picture shows the unit tacking metal lath to wallboard. A. L. Hansen Manufacturing Co., Dept. AB, 5037 Ravenswood Ave., Chicago 40, Ill.

ANGLE INDICATOR AB55420
A precision-made instrument with a movable dial face shows all angles in degrees on one side, while the reverse side translates the degrees to inches per foot drop, carpenter square measurements and percentages of grade. Called the "Krollometer," it is said to be a time saver for figuring roof framing, leveling floors and foundations.

The degree meter is also useful in surveying rough ground, sloping banks, ditches and grading roads. It measures six inches square by three-quarters of an inch thick, and is made of light, unbreakable plastic with embossed white numerals. Two built-in spirit levels are in the dial. Any angle can be set on the meter and calculations made directly from it without additional figuring. Christensen and Kroll, Dept. AB, Box 284, McMinnville, Ore.

For more information use coupon, page 214

American Builder
Now ANY home can have that "contemporary" look!

Entrances take on that "contemporary look" when protected and decorated by one of these new Contemporary doors. Available both as combination doors with storm and screen inserts—and as permanently wired screen doors—they feature a unique fluted-panel design that offers exciting new possibilities for "personalized" color treatment.

As a combination storm and screen door the Contemporary is offered in three attractive insert styles including the beautiful protruding "picture frame" insert shown above. Storm sash and screen panels are designed for quick and easy changeability and require little storage space.

Send for the four-color brochure which describes in detail the delightful color combinations suggested by the Contemporary's design.

A CONTEMPORARY STYLE FOR EVERY ENTRANCE — ANY TASTE

As an all-weather combination storm and screen door the Contemporary is also available with one-light flush insert (left) and with three-light flush insert (right).

The Continental Contemporary screen door is permanently wired, and presents the same combination of Continental quality construction features as is found in all Contemporary doors: mortise and tenon construction; made of Ponderosa Pine, the wood of warmth, beauty and durability. There is no other screen door in its price range that can approach its beauty and utility.

products are manufactured by:
The Wabash Screen Door Co.—Minneapolis—Chicago—Memphis
Owosso Manufacturing Company—Owosso, Michigan
Philadelphia Screen Manufacturing Co.—Philadelphia

and sold through CONTINENTAL SCREEN COMPANY
1323 BOOK BUILDING - DETROIT 26, MICHIGAN

MAY 1954
Auto-Lok has

No other window packs Auto-Lok's selling punch in the homes you build . . . can match Auto-Lok's locking mechanism . . . can seal as tight . . . look as beautiful . . . offer so many obvious superiorities.

Fast and easy to install. Auto-Lok comes to the job on schedule, completely assembled . . . no separate

JALOUSIES, TOO! The same world-famous Auto-Lok engineering design and quality standards are applied to Ludman Windo-Tite Jalousies incorporating all the features that count most with architects, builders and homeowners.

PRACTICAL BEAUTY
Narrow horizontal lines and graceful tilt of the vents in any position, concealed hardware and attractive operator design make Auto-Lok the most beautiful window.

OVER-SILL OPERATOR
Friction-free feather touch control. Wearproof oil impregnated (bronze-steel) gear, rolled thread worm . . . four-tooth engagement for smooth, effortless operation.

EXCLUSIVE "NITE-VENT"
An Auto-Lok original. The bottom vent may be left slightly open for fresh air, yet it and upper closed vents remain securely locked for maximum night protection.

LUDMAN LEADS THE WORLD

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NORTH MIAMI, FLORIDA

Factory Sales Offices: NEW YORK • CHICAGO • WASHINGTON, D.C. • ATLANTA • ST. LOUIS • HOUSTON • SAN FRANCISCO • MIAMI

THE WINDOW
parts to lose... no costly delays... no time-wasting adjustments... minimum labor costs.

Yes, in today's many-windowed designs, Auto-Lok's ease of installation is vital in holding down costs... Auto-Lok's proved appeal to both men and women is the "clincher" in sale after sale!

**WOMEN WANT MOST...**

EASIEST window to open or close... finger-slip control from partial opening of only the lower sash Nite-Vent to the widest opening of all.

SAFEST window to leave open, anytime! Auto-Lok sash lock in any position... keep children in and prowlers out... protect interior walls and furnishings from rain.

EASIEST TO CLEAN. Nothing to lift... no sash to remove... no gadgets to disengage. Quickly clean both sides from the inside—top vent, too! No exposed mechanism to collect dust.

NO WEARING PARTS

Perfectly balanced vents actually aid opening and closing operation... eliminate wear at hinge points and strain on the operator mechanism. No maintenance!

MOST ECONOMICAL

Auto-Lok windows never need adjustment... have no wearing parts... can't rust, rot or corrode and last for the life of the building. No maintenance required... ever!

TIGHTEST CLOSING window ever made. Auto-Lok seals tighter to keep out rain and cold, wind and dust, for more comfort and less work.

COZY WARMTH in zero weather. Auto-Lok seals shut tighter than a refrigerator. Heat stays in, cold stays out, cutting fuel costs.

**MEN LIKE BEST!**

FREEDOM from window work. Auto-Lok screens and storm sash—interchangeable from the inside—fit in fast, come out easy.

COOL COMFORT day or night! Fresh air when it's raining... full sweep of the breeze when it's hot... draft-free ventilation at all times.
Demand for Artcraft Ornamental Iron Work has mushroomed because of painstaking craftsmanship, charming consumer appeal and low cost. No assembly on the job! Custom work is produced from specifications with the same careful attention to detail. Quick service—rush delivery.

**PORCH COLUMNS**

1" square solid steel supporting posts.

Average weight of 90° porch column is 135 lbs.

Always specify single or 90° corner columns when ordering.

**PRICES**

- 12" 90° corner columns: 7' — $28; 7'6" — $30; 8' — $32
- Single 12" panels: 7' — $17; 7'6" — $18; 8' — $19

F.O.B. Columbus

write for FREE CATALOG

New 40-page catalog showing stock and custom work prices and installations. Many ideas for your own plans.

**new products**

**DOOR HARDWARE**

AB55418

Built-in, positive protection against track jumping and noise-free operation feature this new M-D sliding door hardware. Units consist of extra-heavy, extruded aluminum track; heavy-gauge, cadmium-plated steel hangers with a noiseless black nylon wheel on a solid brass wheel bearing, and an aluminum door guide. Door pulls are available separately in stainless steel or brass.

The track is suitable for both 3½-inch or 1½-inch single or by-passing doors. Accessories come completely packaged for both sizes, including necessary track screws, hangers and door guides. All the installer needs for a pair of doors is a piece of track, available in 4-, 5-, 6- and 8-foot lengths and the hardware. Macklanburg-Duncan Co., Dept. AB, Box 1197, Oklahoma City, Okla.

**BASEBOARD UNITS**

AB55422

A new 18-inch left end baseboard extension unit permits furnishing baseboard heating assemblies in increments of six inches. New rating data, with outputs in six-inch increments, two to 24 linear feet, is now available. A new inverted corner plate (not shown) is extended on each side so that it measures 10½ inches from the corner to each end.

With these two units it is now possible to cover completely two or three walls of any room without the use of the manufacturer's baseboard extension. The Burnham Corp., Dept. AB, Irvington, N.Y.

Pour faster with a Jaeger

Look how this mixer puts out stiff concrete as fast as you can take it. You charge in only 5 to 7 seconds with Jaeger's "Skip Shaker" loader. You mix and remix more thoroughly with Jaeger's criss-cross action, then discharge in another 5 to 7 seconds with Jaeger's big bucket and flight blades and special "catch all" spoon.

With that speed you can really turn out yardage with a mixer that's as rugged as it is fast. You; Jaeger has a bigger engine, automotive transmission, Timken bearing drum rollers and heavy duty drum with machined steel tracks—all to give you years of service with low upkeep and without costly breakdowns on your jobs.

Available in 3½, 6, 11, and 165 sizes. Ask for Catalog M-10.

THE JAEGER MACHINE COMPANY

521 Dublin Avenue

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PUMPS • COMPRESSORS • HOISTS • TRUCK MIXERS • PAYING MACHINES

FOR MORE INFORMATION
USE COUPON, PAGE 214

AMERICAN BUILDER
You’ll want to see these 2 NEW CHASE MOVIES!

Both in full color and sound

This movie tells the fascinating story of how nature’s way of heating has been put to work for man. After explaining the theory of radiant heating with interesting animated sketches, it takes you along on a typical installation trip—and shows you every important phase of a ceiling and floor slab installation from start to finish.

The drainage system is the most important health precaution in the home. This movie shows how copper soil, waste and vent lines are installed with less effort... quicker and neater... and at no extra cost.

You’ll see a typical system being installed in a typical home. You’ll see the whole job—from initial selection of copper tube and solder-joint fittings... to the final testing of the finished job.

TO ARRANGE A SHOWING

These movies are available to Plumbing and Heating Wholesalers, Plumbing and Heating Contractors, Building Contractors, Architectural Schools and Associations, Trade Schools and others interested in plumbing and heating.

Make arrangements through any Chase Plumbing and Heating Wholesaler or Chase Sales Office.

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11 minutes. 16 mm)
**KOHLER ELECTRIC PLANTS**

*Portable Power Anywhere, Any Time*

Jobs move faster

Portable, low-cost model saves expense and bother of temporary power line hook-ups. Operates saws, drills, planers, grinders, pipe threaders and cutters, other tools. Develops 1500 watts AC. Engineered throughout by Kohler. Two-wheel rubber-tired hand truck available. Other sizes 500 watts to 30 KW. Write for folder 23-R.

Model 1.5M25, 1500 watts, 115 volt AC. Manual control. Weight 130 lbs. Also 115 volt DC weighing 101 lbs.

**KOHLER OF KOHLER**

*PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS*  
*AIR-COOLED ENGINES • PRECISION CONTROLS*

*These Trestles Need Only One Adjustment...*

**MEN GET MORE WORK DONE** because they spend less time moving and erecting these “Trouble Saver”® Adjustable Steel Trestles. Only one, easy, positive adjustment is required for raising or lowering the scaffold. No tools, triggers or gadgets are needed. Made of carbon steel in 8 sizes for working heights from 7’ 4” to 16’. Contractors and plasterers use them on a wide variety of off-the-ground jobs. Note handy “Trouble-Saver” Mortar Board Stand on platform.

**The Steel Scaffolding Company, Inc.**

Telephone EVergreen 3-5510  Dept. AB  856 Humboldt Street, Brooklyn 22, New York

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**new products**

**ALUMINUM INSULATION** AB55425

Fuel savings up to 30 per cent in winter time and temperature reductions of as much as 15 degrees in summer are said to be accomplished with this material, known as Reflective Insulation. Made of a high-reflectance aluminum foil bonded to a tough kraft paper, it reflects up to 95 per cent of the radiant heat rays that strike it and also acts as an effective vapor barrier against the passage of moisture.

Designed for residential and industrial uses, Reflective Insulation is sold in rolls which contain 250 square feet of material. It is available as a single foil with the reflecting surface on one side of the kraft paper or as double foil with the reflecting surface on both sides. Installation is simple, and existing studs or rafters may be used as a support for the insulation. The Ruberoid Co., Dept. AB, 500 Fifth Ave., New York 36, N. Y.

**KITCHEN CABINETS** AB55402

A new line of birch kitchen cabinets, called Yorktowne Kitchens, features a hand-rubbed, natural birch finish, hollow core door construction, recessed door pulls that eliminate any exterior hardware. The line carries a five-year guarantee against workmanship and materials.

There are units with sliding trays and drawers, wall and base cabinets, cutting boards, drawer bases, oven cabinets, utility and broom cabinets, bar and cabinet ends and one-piece sink and counter tops. Yorktowne Kitchens are stated to be completely flexible, with a range of over 150 sizes and designs to fit any kitchen. Colonial Products Co., Dept. AB, Dallastown, Pa.

♦ FOR MORE INFORMATION USE COUPON, PAGE 214
New! Johns-Manville ASBESTOS SIDING
SILICONE-SEALED

This exclusive Johns-Manville development, Silicone Seal, is but one more of many features which make Johns-Manville Smoothgrain® Asbestos Siding preferred by homeowners everywhere. Check these other advantages:

- Smooth surface with no ridges or grooves to catch air-borne dirt or dust.
- Striking color and texture that is "built-in" to J-M Asbestos Siding by means of colorfast ceramic granules.
- Superior dimensional stability. It holds its shape and size—resists warping, curling, or shrinking—retains its initial appearance after exposure.

*Identified with the Johns-Manville name, a name known to millions for quality.

Get the complete story on this revolutionary discovery. Let our salesman show you the Silicone WATER TEST so that you can see for yourself how this new J-M development will lift you above competition, increase your sales.

Ask about the new Johns-Manville Dover White which has been vastly improved in lasting whiteness and which has also been Silicone Sealed.
MAKE A NOTE!

Right! West Coast Hemlock should never, never be confused with Eastern Hemlock. West Coast Hemlock (Tsuga heterophylla) is an entirely different species. TREE LIFE West Coast Upland Hemlock, grown only at high altitudes on western slopes of the Cascade Mountains, is a superior wood for many uses—the finest type of Hemlock grown! Check its features!

- West Coast Hemlock is strong. Has fewer and smaller knots.
- West Coast Hemlock is uniform, relatively hard. Minimum spiral grain. Fine texture.
- West Coast Hemlock is stable, easy to work. Takes paint smoothly. NO pitch pockets.
- West Coast Hemlock is durable. Not brashy.


NEW PRODUCTS

HEATING PANELS AB55406

When installed in place of conventional baseboard, these heating panels are inconspicuous and save needed floor space, according to the maker. Finished in a prime coat, they may be painted to match wall or trim. Units are stated to be suited to installation of perimeter heating which blankets cold outside walls and glass areas with a layer of warmth. Acting on the principle of heat transfer by convection, cool room air enters at the base of the panel, is heated as it passes through the fins of the element, and re-enters the room through the opening at the top of the panel.

This constant circulation of air results in even temperatures from floor to ceiling, eliminating stratification and drafts. Picture shows a cutaway section of the panel. One-piece front and back panels facilitate installation. Heating element consists of one-inch copper tubing which is expanded to hold fins securely in place. Fins are designed to insure greater heating capacity. Two types—for recessed or for free standing installation—are available. Tuttle & Bailey, Inc., Dept. AB, Corbin Ave., New Britain, Conn.

BONDING LIQUID AB55427

A new bonding agent called "Link" insures a lasting bond for plaster and concrete to all surfaces except考核型 paint. After a single brush or spray application of the liquid, plasters and concrete may be applied to wood, metal, glass, glazed tile, tightly bonded slick paint, hardboard, previously plastered walls, dense concrete and other slick surfaces. The agent dries in from 10 to 30 minutes and will take a coating of plaster or concrete immediately when dry, or days later. The result is said to be a tight, lasting, well-bonded coating. The American Sta-Dri Co., Dept. AB, Brentwood, Md.

ELECTRIC RANGES AB55428

Two new ranges in the manufacturer's line are the double-oven Commander, model AG (illustrated), and the single-oven, model BG. Cove lighting that provides indirect illumination sets off the chrome-finished control panel. A new electronic unit provides automatic surface cooking. The single dial control is divided into three basic cooking zones—warm, boil and fry; these zones are further marked into "high," "medium" and "low" to provide varying heats.

Three plug-in units are featured on both ranges and simplify removal of the unit from the range top for ease of cleaning. A two-level speed cooker can be used in the down position for certain types of cooking or raised and locked into position as a fourth surface unit. The oven is equipped with a Fiberglas heat guard seal which keeps out drafts and maintains a uniform oven heat.

Drawer width handles are provided on oven and storage drawers; aluminum storage drawers have nylon rollers for quiet, smooth operation. Westinghouse Electric Corp., Electric Appliance Div., Dept. AB, Mansfield, Ohio.

USE THIS COUPON FOR MORE INFORMATION ON NEW PRODUCTS AND CATALOGS IN THIS ISSUE

Save Time—Just Insert Key Numbers and Mail To:
American Builder, 79 W. Monroe Street, Chicago 3, Illinois

Name ..........................................................
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Please indicate whether you are
Builder ( ) Dealer or Distributor ( ) Other ( )
Case history of CECO on-the-job performance

How Ceco

installation methods

saved up to $10.50 per window opening

When a builder provides wanted features in homes, he is on the right track to make money. When he does that at a saving, then profits really begin to pile up.

That is what Joseph Horowitz of Red Seal Homes, Inc., Chicago, discovered when CECO Steel Casements were used. CECO research proved owners prefer steel casements. And CECO engineering plus personal service made savings these 2 ways:

- Installation was speeded because the casements were delivered with steel casings attached, ready to be placed in the rough openings...eliminating need for finishing the openings.
- Time was saved because all units came Bonderized and Prime Painted, ready for field painting...eliminating prime painting on the job.

Builders everywhere can save from $4.50 to $10.50 per opening on labor and materials, depending on local wage rates and installation conditions. So on your next job, for profit's sake and customer satisfaction, use CECO Steel Casements. Write for free literature on installation and money-saving ideas.
SAVE 70%! Yes! Such results were not exceptional—with new Shakertown GLUMAC Units. They're deep-grooved, factory-stained cedar shakes which are electronically bonded to a tapped, asphalt-impregnated backer board. In big, easy-to-handle 16" x 46经济社会.
Catalogs—and Manufacturers Literature

488—ALUMINUM BLINDS
—16-page booklet presents "Flexalum" venetian blinds, offering maximum control of light and air, freedom from maintenance. Contains complete product information, light control and solar radiation control studies, installation information of units in different window areas. Detailed specifications and typical product installations also included. Hunter Douglas Corp., Dept. AB, 150 Broadway, New York 38, N.Y.

489—HARDWOOD PLYWOOD — product uses are told in new 20-page booklet. "A Treasury of Hardwood Plywood," stated to be first complete compendium ever issued on that product. Booklet contains color wheel showing in natural colors the range of hardwoods available in plywood form. Copies 25 cents each. Hardwood Plywood Institute, Dept. AB, 600 S. Michigan Blvd., Chicago 51.

490—STAINLESS STEEL FASTENERS—20-page catalog contains in-stock inventory of cap screws, nuts, washers, machine screws, sheet metal, wood and set screws, and pipe fittings for manufacturers of electronic and electrical equipment, general manufacturing and building. One page is devoted to suggested short cuts in ordering to help keep costs down. Star Stainless Screw Co., Dept. AB, 190-A Union Ave., Paterson 2, N.J.

491—METAL WINDOWS—steel and aluminum windows are offered in this new 32-page catalog. Standard pivoted and projected commercial types, residential casement and double-hung windows, rain shield, base- ment and utility windows are described with complete installation details in both full size and half scale. Glass sizes for both steel and aluminum types are included. J. S. Thorn Co., Dept. AB, Allegheny Ave. and 20th St., Philadelphia 32, Pa.

by Herb Willson

IN-SINK-ERATOR'S complete kitchen sink, featuring the famous IN-SINK-ERATOR Food Waste Disposer and the Dishwasher that makes its own 180° water, is ideal for promotional builders. Here's a "unit" that has features galore. A large, really usable sink with swinging spout and provision for spray. The finest disposer on the market... every prospect is familiar with its nationally advertised name. And, a completely automatic dishwasher... washes, rinses and dries without lifting a finger... holds all utensils for a family of six. Write In-Sink-Erator, Racine, Wis., for details.

HERE'S AN IDEA! Where do you get a temporary floor runner? Where do you find small amounts of insulation, screen door covers, temporary enclosures, etc.? Richkraft has the answer in the new Redi Roll! This new 49" carton in an attractive pattern for store display, contains a full assortment of Richkraft papers in "take home" size rolls 36" wide. There is a type of paper for every requirement with just the proper instructions for meeting all of the 101 household uses. Richflex Reflective Insulation is also available in Redi Rolls for making it easy for the house owner to do his own insulation. A real answer to some of the problems of the "Do-it-yourselfers!" Better look into it! "There's Millions in it." Ask the Richkraft Co., 510 N. Dearborn St., Chicago.

CHECK THE COUPON below which is included in BUILDING BUY-WORDS as an added service and for your convenience in requesting more information on the value-giving products presented in this department. We take care of all details. Allow reasonable time for requested information to be handled and mail. There is no obligation—USE THIS COUPON NOW.

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CERMET TILE CO.—Carra-Plas Plastic Wall Tile
MUTSCHLER BROTHERS CO.—Kitchen Design Service
DECATUR PUMP CO.—Burks HV Series Pumps
AMERICAN LUMBER & TREATING CO.—Wolmanized Lumber
ELKAY MFG. CO.—Sit-Down Sink
IN-SINK-ERATOR MFG. CO.—Complete Electric Sink
RICKKRAFT CO.—Redi Roll of Richkraft Papers

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SISALKRAFT
Gives Positive Protection to Building Materials and Equipment

This waterproof reinforced paper is light in weight, easy to handle... but plenty tough... capable of taking a soaking for days and be ready for re-use. Reenforced with over ¼ mile of steel-strong, moistureproof fibres per square yard, it gives you maximum protection with real economy.

GENUINE SISALKRAFT is used in dozens of building applications:

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AVAILABLE IN WIDTHS OF 3, 4, 5, 6, 7, 8 AND 13½' AT LUMBER AND BUILDING SUPPLY DEALERS EVERYWHERE. WRITE FOR FREE SAMPLES AND INFORMATION. DEPT. AB-5, ATTLEBORO, MASS.

Catalogs

492 - AWNING WINDOWS - "Air-Vue" aluminum awning windows are presented in this eight-page folder, containing complete material, construction, hardware, finish, glazing, erection and operator specifications. Line drawings show standard and modular widths and standard heights of all usual window sizes. Scale details show wood frame, concrete masonry and brick veneer on block installations. R. B. Leonard, Inc., Dept. AB, Miami, Fla.

493 - ELECTRICAL FIXTURES - "Inspiration Lighting" is the name of this attractive four-color catalog containing 52 pages of illustrations and text describing the complete company line. Standard and fluorescent fixtures for living rooms, dining area, bedrooms, hall lighting, kitchens, bath and powder rooms, outdoor fixtures, recessed lighting, strip lights and utility lighting are included, all with description. Moe Light, Inc., Dept. AB, Fort Atkinson, Wis.

494 - FUNCTIONAL CEILING - offers triple advantages of radiant panel heating and cooling and acoustic control. Heat is conducted from coils through aluminum ceiling panels which are secured directly to coils. Line drawings show advantages of system; performance characteristic charts indicating specific heat transmission at 70 and 80 degrees F. are included. Burgess-Manning Co., Architectural Products Div., Dept. AB, 5970 Northwest Highway, Chicago 31, Ill.

495 - ALUMINUM DOOR - 12-page catalog contains comprehensive information on wide span "Alumi-Door" designed for commercial buildings. Photographs and detail drawings describe how door is braced to make possible units up to 60 feet wide without posts. Contents include material and construction information, basic types, specification details, assembly instructions, maintenance economies and operation. Stevens-Thuet Co., Dept. AB, 2165 Cowles St., Long Beach 13, Calif.

FOR MORE INFORMATION USE COUPON, PAGE 214

AMERICAN BUILDER
how many will you miss out on

...AND WHY?

No one can get 'em all. What's important is, will you have the opportunity to bid? You can't get any of them unless you try.

This is sure, with keener competition you just can't afford to miss out on any jobs because you heard about them too late or never heard about them at all.

The one sure way to know at the right time where the jobs are, the way proven for over 60 years by most of the leading firms in new construction, is to use Dodge Reports. Wherever you are in the 37 Eastern States Dodge field men spend all their time investigating new business opportunities for you in the new construction market.

You can have all the business you want if you know where the jobs are...at the right time. It's your business to figure, bid and sell...it's Dodge Reports' business to find the jobs and tell you where they are so that you can sell them. There's just no other way to make the most of all the opportunities coming up every day in new construction. There are just too many people to see, too many miles to cover, too little time.

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Make sure that from this day on you don't miss out on any jobs you want.

Write today for book. No obligation.

DODGE REPORTS

TAKE THE FIRST STEP IN EVERY SALE

Dept. AB-554, 119 W. 40th St., New York 18, N.Y.

Timely, accurate construction news service East of the Rockies
Dear Mr. Builder:

The beauty of the Raynor residential five section garage door, illustrated in this ad, is typical of the full door value found in every phase and model of the Raynor complete line of Wood Sectional Overhead Doors.

By building a door to fit every type of residential, commercial, and industrial door opening, Raynor Mfg. Co. is capable of fulfilling your entire overhead door requirements.

We most cordially invite you to check your telephone directory or write direct for the name of the Raynor dealer nearest you and he will gladly supply full details on Raynor Wood Sectional Overhead Doors.

Yours truly,

E. W. Goddard
Sales Mgr.

P. S. — The entire Raynor line is equipped with patented Graduated Seal for complete weather protection and ease of operation.

Raynor residential five section garage door

Catalogs

496 — AIR CONDITIONING — basic information about heating and cooling homes is contained in this 24-page booklet. Besides discussing principles of blended-air heating and blended-air conditioning, booklet points up the economies which may be realized by the home owner who installs summer cooling. Charts, diagrams, salient questions and answers to pertinent sought-after information are included. System combines central heating and cooling in one unit. The Coleman Company, Inc., Dept. AB, Wichita, Kans.

497 — ALUMINUM WINDOWS — new 10-page catalog lists manufacturer’s line, including intermediate projected, classroom and combination windows, ribbon-type heavy section custom and class-room windows, glass bloc, casement, utility and basement windows, sun canopies, sills and channels. Specifications, glazing details, hardware, types and sizes are given full or half-size details. Valley Metal Products Co., Dept. AB, Plainwell, Mich.

498 — POWDER-ACTUATED FASTENERS — this application manual has been compiled from field reports and includes photographs and cutaway sketches to show how these devices are best employed in the building, construction and maintenance fields, as well as in electrical, air conditioning and other installations. Manual lists more than 20 fixtures and accessories, 36 drive pins, threaded studs, Ramset Fasteners, Inc., Dept. AR, 12113 Berea Road, Cleveland 11, Ohio.

499 — OVERHEAD DOORS — 12-page booklet gives construction features, typical installations of both standard model, stretch spring-type, and deluxe model, torsion spring-type, for garage doors. Stock sizes available for residential single or double car openings as well as for commercial sections are listed. Extra features include reduction unit for chain operation, sliding center posts for wide openings, built-in access doors, The Kinnear Mfg. Co., Dept. AR, 3100 Fields Ave., Columbus 16, Ohio.

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for fine furnaces, air conditioning units
Thulman chimneys and fireplaces,
all kinds of furnace pipe,
stacks, registers,
special fittings and complete sales and service aids.

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Complete service from one source—that’s the Majestic story in a nutshell. Nearly 50 years of experience in manufacturing quality heating equipment is placed at the disposal of Majestic dealers in the form of sales, service, and installation tools of every description. Efficient, well-built equipment to complete any seasonal or year-round air conditioning job—from basement to rooftop—is available from one source. Write today for the full story of Majestic’s complete service and dealer cooperation.

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MISTER-
Here is a REAL SASH BALANCE

TRULY THE MOST MODERN SASH BALANCE ever made!
ACCLAIMED BY BUILDERS, CONTRACTORS, HOMEOWNERS . . . EVERYWHERE!

It’s 100% concealed • It’s FASTER to install • It’s WHISPER-QUIET in operation • It provides TWO methods of tensioning • It has POSITIVE, NON-JAMMING action • It has a self-centering guide arm

In fact, Hidalift has just about everything for greater sales volume—increased profits. Be sure and write for the new descriptive folder.

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Tension is applied during installation on "L" type attaching bracket; after installation on "L" and "Cap" types.

QUALITY PRODUCTS FOR OVER A CENTURY

T&S

MAY 1954
Precision-built for the man behind the gun...

White gives you the most practical Universal Level-Transit on the market!

**HERE'S a Universal Level-Transit specially developed to handle all survey and checking operations. It's sturdy, accurate and exceptionally easy to use. And—a new single truss standard frame design replaces old-style cross bars and wyes. What's more it has a silvered 4½" horizontal circle with easy to read 5 minute vernier.**

Other advantages of this outstanding instrument include coated optics, internal focusing and a ball-bearing race for smooth operation even in sub-zero weather. Check out a White on your next trip and discover how much easier your work can be. Write for DAVID WHITE Bulletin 1053, and name of your nearest dealer. 311 W. Court St., Milwaukee 12, Wis.

**Speed all these and many other operations**

- finding differences in elevation
- determining grades for building
- laying out lots and foundations
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- aligning foundation piers
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- ascertaining slopes for tiling
- relocating lost surveying monuments

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most building labor disputes 'affect Interstate Commerce'

By John F. McCarthy
Attorney at Law

The Taft-Hartley Act, officially known as the National Labor Management Relations Act, sets up the exclusive pattern for the regulation of labor relations in those segments of industry within its jurisdiction. There can be no regulation for those industries by state statute, even though consistent with the Taft-Hartley Act or merely supplementary to it. Most labor disputes between building construction employers in an area and a union will "affect interstate commerce," and will be subject to the Taft-Hartley Act and the power and authority of the National Labor Relations Board. Thus, the amendments to the Act, presently being considered by the Congress, are of substantial concern to builders. Certain of these amendments are inimical to the best interests of builders. (See American Builder, March, 1954, issue).

The exclusive nature of the power and authority of the National Labor Relations Board, and thus the significance of that Board and the Act to builders, is emphasized by a recent decision of the United States Supreme Court in the case of Garner et al vs. Teamsters Union 74 S. Ct. 161. In that case, Garner, under the name of Central Storage and Transfer Company, was engaged in the trucking business. His operations formed a link to an interstate railroad. He had no controversy with his employees and never had objected to their joining the Union. The Union sought to force Garner to compel his employees to join. To that end the Union established a picket line at Garner's loading platform. None of the pickets was an employee of Garner. Drivers of other carriers refused to cross the picket line and Garner's business fell off substantially.

The conduct of the Union was in violation of the Labor Relations Act of the State of Pennsylvania where Garner conducted his busi-
ness. It also was in violation of the Taft-Hartley Act. The Pennsylvania Court, finding a violation of its statute, issued an injunction prohibiting the Union's picketing. The United States Supreme Court reversed the Pennsylvania decision and dissolved the injunction. The Supreme Court said that since the dispute was within the purview of the Taft-Hartley Act, the parties only could proceed before the National Labor Relations Board.

Of course, the Taft-Hartley Act limits its regulation to labor disputes "affecting interstate commerce." The National Labor Relations Board has announced nine categories of industry in which disputes, in its judgment, affect interstate commerce and are subject to the Act. These are:

1. Instrumentalities and channels of commerce, interstate or foreign.
2. Public utility and transit systems.
3. Establishments operating as an integral part of a multi-state enterprise.
4. Enterprises producing or handling goods destined for out-of-State shipment, or performing services outside the State in which the firm is located, valued at $25,000 a year.
5. Enterprises furnishing goods or services of $50,000 a year or more to concerns in categories 1, 2, or 4.
6. Enterprises with a direct inflow of goods or materials from out of State valued at $500,000 a year.
7. Enterprises with an indirect inflow of goods or materials valued at $1,000,000 a year.
8. Enterprises having such a combination in inflow or outflow of goods or services, coming within categories 4, 5, 6, or 7, that the percentages of each of these categories, in which there is activity, taken together add up to 100.
9. Establishments substantially affecting the national defense.

Since a labor dispute between building construction employers of an area and a labor union would undoubtedly be a general dispute involving directly and/or indirectly goods or materials from out of state valued at from $500,000 to $1,000,000 a year, the proposed amendments to the Taft-Hartley Act and the power and authority of the National Labor Relations Board are of substantial concern to builders.

"It's easier to sell houses from the floor up!"

...that's the beauty of Higgins Block

The Robert P. Gerholz houses in Flint, Michigan, have gained national attention because of their up-to-the-minute design. Right from the first, these houses have featured the up-to-the-minute flooring, Higgins Block. Besides the lustrous, sales-making richness of texture, look at all the other advantages of this flooring:

- 9" x 9" net face hardwood blocks — easy to install
- 3-ply cross-grain construction — when properly installed will not warp, buckle, cup or crack
- Selected oak face — comes with final finish
- Pressure bonded with marine-type glue — water-repellent, climate-proof
- Deep-impregnated with famous "Penta" — rot-proof, termite-proof
- Grooved back anchors into adhesive — quiet and comfortable
- Can be laid without special preparation directly on concrete slab — ideal for radiant heat
- Blocks fit flush — without large, visible V-grooves

Higgins BONDED HARDWOOD BLOCK FLOORING
INC. THE WORLD-FAMOUS BOAT BUILDERS

Use this coupon for free sample block and literature
Gentlemen: Please send sample block and literature to
Firm Name
Address
City.............. Zone...... State.....
HOW to

Custom building is almost synonymous with extras—that tangled net of extra work detail which gets thrown over a job-in-progress by the whims of the owner. Probably no fool-proof system has yet been devised to keep an exact account of extras. But every custom builder must cope with them in a systematic way. Or at the final billing he will find himself in hopeless confusion.

An excellent approach to the problem has been built up out of long experience by C. A. Hemphill & Associates, who build some 50 houses a year along Chicago’s North Shore. A Hemphill house averages $40,000 in cost, is built under a fixed price contract. Hemphill prefers this type of contract for its sales appeal. The owner knows at the start just what the house specified in the contract will cost him, and this naturally encourages him to take the plunge with considerable peace of mind.

During construction the owner wants a window made larger, built-ins added, door-types changed. It often adds up to a sizable amount of extra work. What’s the best way to keep track of it?

Filled out and sent to owner as soon as possible after extra job has been agreed upon verbally. In the main, owners like this system, sign and pay as asked.

Some form is sent if job has to be figured on a cost-plus basis—but the rubber stamp in lower right hand corner is different. Payment comes at final billing time.
control the EXTRAS in custom building

Hemphill's method of controlling the extras is based realistically on one principle: get it clearly down in writing as quickly as possible and leave nothing to memory.

To this end the builder uses an Extra Work Order form, reproduced here. This form is filled out in triplicate to cover the extra jobs agreed upon by the owner and the builder and/or his subcontractors as the house progresses. Two copies are sent to the owner for his signature, one to be kept by the owner. When the signed copy is returned by the owner it becomes an important record kept in the master file on that particular job.

As these extra work order forms collect in the master file they are posted to a summary form (the one titled "Changes in Plans and Specifications") reproduced here. This summary functions as an over-all record of all the extras that have collected around a given job, and is an invaluable checklist to be consulted when the final itemized billing is made up.

While Hemphill's objective, wherever possible, is to collect for the extra work at the time the owner signs the order form, some owners will object and want to pay later. The reflection of such an order in the summary sheet will make sure that this item is not omitted from the final billing. Also, some extra jobs cannot be figured exactly at the time the order is written but must be presented to the owner on a cost-plus basis. The summary sheet catches these up and keeps them prominently before the builder.

To each extra work order Hemphill adds 10 per cent for overhead and 10 per cent for profit. Closely related to the extras and their handling in the records is the matter of the allowances recognized by the contract and which must be reconciled at the end of the job. The builder may find, for instance, as he moves onto the owner's lot that certain trees have to be removed, or black dirt supplied, or that extra work which could not be foreseen must be done in connection with sewer connections.

To keep an account of such work Hemphill includes as a part of the job's master file an "Adjustment on Allowances" sheet. To this sheet are posted items picked off the bills from the various contractors as they come in to the builder. Thus the final itemized billing to the owner will reflect not only the extra work orders signed by him and not paid for at the time, but also any balances which he owes the builder as shown by the Adjustment on Allowances sheet.

Credits to the owner, too, are shown on this final billing, for the Extra Work Order form is used to record such credit, as well as to reflect extra work done.

Responsibility for this system as a whole rests with Hemphill's general superintendent, F. B. Connelly.

---

Summary sheet, included in master file on each job, gives at a glance the record on extras. The "E.W.O." column refers to the extra work orders made out to the job.
Introducing...

the most compact and versatile central summer cooling unit now on the market!

simple and easy to install as...

A
Basic unit for addition to any forced-air warm air furnace.
(only 43" high)

B
Basic unit with blower package added—converts any warm-air gravity furnace into a forced-air winter-heating and summer-cooling system.
(only 60" high)

C
Add space cap to basic unit with blower and you have a compact summer cooling unit for commercial use in offices, stores, restaurants, etc.
(only 72" high)

New Williamson 2 and 3-ton water-cooled space refrigeration systems need only 2.7 sq. ft. base area, fit into smallest home. Unique design makes handling and installation easy. Basic unit provides complete summer cooling with forced air warm air furnace. Add blower unit for use with gravity type, and space cap for large space cooling. Thermostat control. Just set thermostat. Air-cooled models also available.

The Williamson Heater Company

Manufacturers of the industry’s most complete line of warm air furnaces, pipe, fittings and ducts for home and commercial use.

THE WILLIAMSON HEATER COMPANY
3525 MADISON RD., CINCINNATI 9, OHIO
Please send me complete information on:
□ Basic units □ with blower □ with space cap □ W.A. furnaces. □ Prefab. Duct & fittings

Name
Company
City. Zone State

This factory branch has a basic simplicity that adds much to the looks and little to the cost. Most important is the engineered floor plan designed exactly for its needs. Builder is John J. La Porte, Portland, Oregon

office space • five components dictate planning and design
display area • demonstration area • when you build for
service counter • shop and storage • sales and service

This Portland, Oregon branch of Skil Corporation is an excellent illustration of a building designed for the specific needs of a specialized business. It is typical, too, of the trend of manufacturers to improve and expand their service facilities, which should add further impetus to the construction of such facilities in 1954. Structures of this type require far different planning than the usual rectangular commercial buildings, and builders should be aware of this.

Careful consideration must be given to the complexities of a branch operation. Foremost in the planning should be the shop and storage area. But branch operations have other requirements. The office area must include desk space for the outside sales staff as well as office personnel. These requirements increase the size of the area, more so than that of the usual small business operation.

A service counter, where customers return equipment for repair and authorized service men purchase

(Continued on page 228)
HOW TO CREATE ROOMS THAT SELL HOMES FASTER

Build in the carefree beauty of NEVAMAR®

The prefinished surfacing material

Build a lovely vanity into a bathroom and you add an important selling feature. This is just one of the countless opportunities that NEVAMAR offers for putting extra value into any home you build or remodel. It’s available in many colors and patterns, including mellow wood-grains that fit any decorative plan. It never needs painting or refinishing. Write for information and samples.

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The New MULLER MIXER
— top performance with bottom price and upkeep

The larger drum of the new 3½ cubic foot model has ample capacity for the lightest materials. Equipped with electric motor or either of the two best air-cooled engines — large enough to stand plenty of overload. Other features: Muller Paddle Shaft Seal for positive bearing protection, guaranteed for life of mixer; power

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MAY 1954
MR. BUILDER: Here's real profit opportunity for you! A revolutionary new type fool-proof slider window has been added to the already famous line of Per-Fit and Best-Vent aluminum double hungs.

This new slider window—the "Job-Condition Slider"—was developed after intensive job investigation and laboratory research to meet an unfilled demand for fool-proof horizontal slider window easily adjustable to all job requirements—one package to fit all through-wall thicknesses from 4 1/8" to 5 1/16".

These four great windows... "the Per-Fit line"... offer you your best opportunity to satisfy the growing demand for modern aluminum windows.

GLASS BLOCK VENTILATOR—Another new Per-Fit design—with rugged, precision construction plus the handsome lines your customers like. Heavy extruded aluminum. Available in all standard sizes and opening types, for any width glass block. You'll want to see this new window—every feature is engineered for customer appeal.

You owe it to yourself to take a good look at all four of these great new Per-Fit products. If your materials dealer does not stock them, ask him to write for samples and prices... or contact the factory direct for the name of the Per-Fit dealer nearest you.

The Per-Fit Products Corporation
1204 East 53rd Street, Indianapolis, Indiana

World's Finest Aluminum Windows

sales-service building

(Continued from page 226)

parts, is an important consideration.

A convertible area for demonstrations and meetings is another highly desirable component of a branch operation. Many manufacturers use demonstrations as a sales tool, and the room provided for this purpose should have folding doors so that it can be closed off and used as a meeting room.

The display area for this type of building is extremely important, for
To Build Modern ... without Price Penalty... Build of Cavitex

Among today's home builders the swing is to masonry. And the ultra-modern masonry is Cavitex. With eye-appeal and price appeal, Cavitex has unusual interest for building contractors and owners alert to modern trends.

Cavitex is new—in size, proportion, design and color range. Cored-out design provides insulation values and saves weight. Easily the most practicable unit for cavity-type wall construction. Ideal also, as veneer over frame, or as facing over 1” concrete block. Available in pastel tones for exposed masonry interior walls.

Expensive? Just the reverse! Material for material, Cavitex costs less than frame. This low price made possible by manufacturing economies. Local plants convert local raw materials into units for local builders. Usual high costs of freight and distribution are practically eliminated. Write W. E. Dunn Mfg. Co., 418 W. 24th St., Holland, Mich., today for 1-color brochure and name of nearest local production plant.

Local Manufacturing Opportunity

Many choice locations are open for the local manufacturing of Cavitex. Excellent opportunity for building contractors. Each plant operates under franchise in protected territories. Cavitex machine available on lease or sale. If interested, ask for important book "Opportunity Unlimited."

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.


1950, 5th Ed. 301 p. 123 illus. 60 tables. 5x8. $3.75

FREE EXAMINATION COUPON

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30 Church St., New York 7, N.Y.

Please send me a copy of Simplified Carpentry Estimating. If after 5 days trial I am not fully satisfied, I'll return it and owe nothing. Otherwise I'll keep the book and send $3.75 plus a few cents for postage and handling in full payment.

Name__________________________
Street__________________________
City________________ State______

SAVE. Send $3.75 with your order. We pay postage handling same trial terms.

MAY 1954

Keep Unpaved Streets Parking Areas Driveways Playgrounds Tennis Courts . . . and any other Earth, Gravel, Unpaved Surfaces

CLEAN, SMOOTH and DUSTLESS

SOLVAY Calcium Chloride is the inexpensive, efficient way to eliminate dust. This clean, odorless, economical material keeps all unpaved surfaces and adjoining areas healthful and free of germ-bearing dust.

SOLVAY Calcium Chloride is easy to use—requires no special equipment or knowledge. It can be applied quickly and easily.

—No experience or expensive equipment is necessary.

Send for FREE BOOK

This highly informative book "END DUST" gives complete details on methods of application, quantities required, etc. It contains photos, illustrations, charts, and easy-to-follow, step-by-step instructions on how to end your dust problems.

DEALERS!

If you are not now handling SOLVAY Calcium Chloride, write for details, prices, advertising and promotion material.

GET THE FACTS—MAIL COUPON NOW!

SOLVAY PROCESS DIVISION
Allied Chemical & Dye Corporation
61 Broadway, New York 6, N.Y.

Please send me at no obligation your FREE BOOK, END DUST with SOLVAY Calcium Chloride.

Name__________________________
Company_______________________
Position_______________________
Address________________________

City________________ State______ Zone______

Calcium Chloride

SOLVAY
Hydrocrane's
Built-in Reach
Grabs the
"EXTRA DOLLAR"
Jobs

Here the Hydrocrane lifts slabs used as facing for new building in Omaha, Nebraska. With telescoping boom plus cushion hydraulic control operator can inch slabs into place without fear of breakage.

Bucyrus-Erie's 3-ton Hydrocrane with hydraulically telescoping boom gives you 8 ft. more boom — right at your fingertips. This special extend-retract action means extra dollars in savings on regular jobs ... extra dollars in profits on special jobs ordinary outfits can't handle. Look:

1. **ON ERECTION WORK** boom reaches between girders, through windows and doors — hoists concrete buckets and planking to upper stories ... saves hundreds of man-hours.

2. **ON CONCRETE POURING**, other material handling jobs, telescoping boom reaches under branches, over obstructions, into tunnels — handles dozens of close quarter jobs.

3. **ON YARD WORK** reaches into box cars ... over fences ... between stockpiles to move material, load trucks, etc., in a hurry.

*Quick Convertibility to HYDROHOE*

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