

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?





Dress-Up Your Homes with NuTone!

NUTONE Kitchen Fans

NUTONE Door Chimes

ione-lla

NUTONE Ceiling Heaters

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.



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



Kitchen Fans Door Chimes Ceiling Heaters

the kwikset "400" line the quality lock for quantity building

SALES AND SERVICE COMPANY ANAHEIM, CALIFORNIA

400" LINE

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.



SCREEN AND COMBINATION

Low in costinstalls 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 $\frac{5}{8}$ " to $\frac{1}{8}$ " thick ... no adjustment necessary ... ideal for use with door closer ... costs less and is Dexter \angle fetime Guaranteed.

DEXTER LOCK COMPANY

GRAND RAPIDS • MICHIGAN A SUBSIDIARY OF NATIONAL BRASS COMPANY In Canada: Dexter Lock: Canada Lid., Guelph, Onturio In Manise: Dexter Locks, Fluio Biogenie, S. A. do C. V., Monterroy, Nuovo Leon MANUFACTURERS OF AMERICA'S ORIGINAL TUBULAR LOCKŠ

Installs in minutes!

You have only one ¹%s" hale to install the Dexter "Single Bore." This means hours saved in door installations.



1100 LOCK SET

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, gostly time is saved.



"SOFT TOUCH" yielding strikel

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.



STRIKE FOR NO. 1199

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<u>Now</u>—a thermostat in



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 SelecTemp

heating they can have any temperature desired, in any room, at any time. Furthermore, SelecTemp is exceptionally responsive. The temperature level of any room can be changed in just a few minutes.

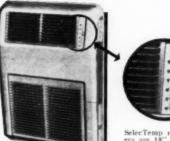
SelecTemp is a *central* heating system, with a revolutionary type of room heating unit. Each unit includes thermostat, heat exchanger, circulating fan and filter.

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.

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

Mail coupon below for complete, detailed information.



SelecTemp room heaters are 18" high, with varying width. Shown here is 12,000 Btu unit.

SelecTemp 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 thermostats.

LOW INITIAL COST. No other system can be so easily installed in either new or old construction. Small soft copper tubing (y_4 inch I.D.) carries steam to individual room heater units. Return lines are y_8 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

Please send literature on Iron Fireman SelecTemp heating.

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

Nan

Address

City_



EDITORIAL-

Yes, the Dealer Will Stay

F OR 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.

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in the Building Field

dollar volume of building increasing

DWELLING UNITS STARTED

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.

DOLLAR **VOLUME OF** CONSTRUCTION for the first two

Expenditures for new construction

months of 1954 advanced slightly over the previous vear. 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.

PRICE CHANGES

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.

LABOR COSTS

Union hourly wage rates of building trade workers have in-

creased 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 CONSTRUCTION with slight in-COST INDEXES creases 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 B		
Per Cent Chan With La	ge con	iparea
	Per Cent	Per Cent
STARTED	Up	Down
Month of February		- 8%
January- February		- 8%
DOLLAR VOLUME OF CONSTRUC- TION		
Private Construction Dwelling Units	+ 7%	
Residential Alterations	+ 7%	
Industrial		-12%
Commercial	+47%	
Institutional	+18%	
Farm Construc- tion		-10%
Public Construction		- 4%
Total Construction	+ 1%	
PRICE CHANGES		
Building Brick	+ 3%	
Cement	+ 3%	
Lumber	1 /0	
Paint	1.00	- 3%
	+ 2%	
Plumbing Equip- ment	N. C.	
Heating Equip- ment	+ 2%	
LABOR COSTS Average Hourly Earnings of Construction Laber	+11%	
CONSTRUCTION COST INDEXES Residences		
Apartment Hotels and Office Buildings	+ 1%	
	1 3 78	
Commercial and Factory Build- ings	+ 3%	
N.C. = No chan	-	

N. F. MOLNAR, Prominent Cleveland Builder



"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.)



uildercast. LOCAL NEWS

FORECASTS NORTHERN area

LATE FHA DEVELOPMENTS (original story on page 41). Acting FHA Commissioner Norman P. Mason, in one of his first offical acts, announced the <u>retire-</u> <u>ment of Deputy FHA Commissioner Walter</u> <u>L. Greene, effective April 15. With</u> FHA from its beginning 20 years ago, Greene had served as its commissioner from July, 1952, to April, 1953.

Senator Homer Capehart said <u>Senate Banking Committee would delay</u> <u>hearings on housing bill about two</u> <u>weeks</u>, 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 Nonessential 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 <u>said HHFA Administrator Cole himself</u> would be questioned "under oath."

In New York, at a Mortgage Bankers Association conference, W. A. Clarke, president, charged that the forced <u>resignation</u> of Guy T. O. Hollyday, a former president, <u>was unjust and</u> <u>unwise.</u> 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.

In another strong statement, NAHB President R. G. "Dick" Hughes, winding up an all-day conference of the Long Island Home Builders Institute, termed Hollyday's resignation "<u>extremely</u> <u>unfortunate and detrimental to success</u> of the new housing program and future of the building industry. It appears FHA is in a terrific struggle to continue to provide service to the house buying public. The time has come to unite and fight to save this great institution." 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, <u>drive home</u> <u>the thought to buyers that their down</u> <u>payment is protected by a \$100,000</u> <u>fidelity bond if they deal with a member.</u> 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, <u>decided to hold the line against all</u> <u>proposed wage and other increases.</u> They are advising subcontractors that "builders will not absorb increased costs from any contractors who may independently agree to increases at this time." <u>The decision extends</u>, it was emphasized <u>even to the possible neces-</u> sity 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.

HEATILATOR FIREPLACE

Only the 3-Star Heatilator Unit Offers these 3 Sales Features!

A Circulates Warm Air

Will Not Smoke

X Damper Seals Air-Tight

Write for complete information HEATILATOR INC., 925 E. Brighton Ave, Syracuse 5, N. Y. news northern area



No-Strike Law Urged to Settle Union Disputes

A law compelling unions to establish procedures for settlement of



jurisdictional disjurisdictional 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.

V. L. Williams

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 equip-

Mapping Convention Plans for Ohio



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. Kauffman and Hudson Force. Akron: A. B. Stanbery, Toledo. OHBA president: Melvin E. Kimmey, Ralph Sharp and Joseph B. Haverstick. Dayton: Joseph J. Robers, Cincinnati: Fred Bostleman, E. H. Crowell (chairman) and Dale Mehring, Toledo: John L. Morley, Mansfield, A. J. Alexander, Akron

ment 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."

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.

Confer on Housing Minority Groups



Charles F. Vatterott Jr. (left). NAHB minority housing chairman for Missouri. Kansas. Nebraska and Iowa, talking over the St. Louis problem with Ben Goldberg, president. Home Builders Association of Greater St. Louis: Dr. George W. Snowden, FHA minority group housing adviser: W. F. McKinney, FHA racial relations director, and Gene L. Vescovo

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

10-N

NORTHERN NEWS CONTINUES ON PAGE 13-N

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

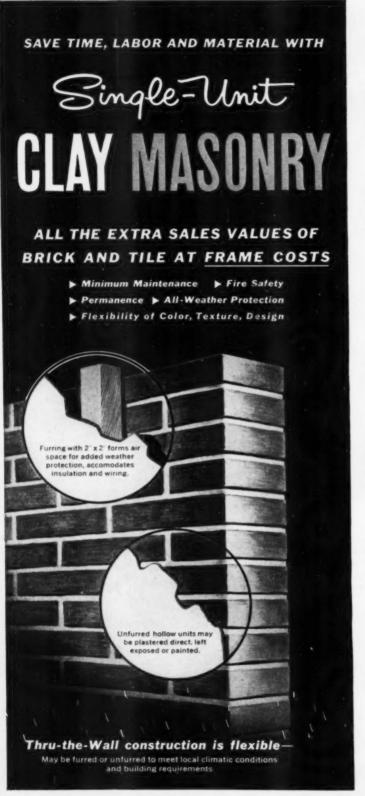
Grilles are of uniform height and vary according to door widths: Grille area adequate for normal residential applications.

THE AMERICAN WELDING AND MANUFACTURING CO. • 310 DIETZ RD. • WARREN, OHIO MAY 1954

THIS IS THE NEW

AMWELD®

DOOR

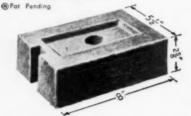


Typical 6" Thru-the-Wall Burned Clay Units

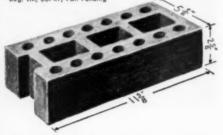
(These meet FHA and all national building code requirements for one-story houses)



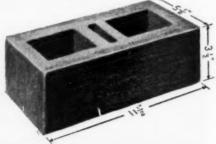
"SCR brick®"a solid, modular unit with coring not more than 25% of total volume. With furring strips, continuous base flashing and weep holes, this unit provides excellent weather protection in the most severe climates. Jamb slot accommodates metal or wood windows.



"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, Pet. 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 $6'' \times 4'' \times 12''$ nominal dimensions, designed for use with or without furring.

For construction details on these units, just write us on your letterhead.

TRULTUR

SCPI

1520 TETH STREET, N.W., WASHINGTON 6, D. C.

STRUCTURAL CLAY PRODUCTS INSTITUTE

NORTHERN NEWS_

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 160-member organization has moved its office, headed by Bert Wilson, executive director, to





Jess Newkirk

Bruce S. Blietz

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

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 MAHB 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. Trude, 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



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

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. . . .

Extend Training Course-

Long Island Home Builders Institute, finding great demand for its 150-hour home-builders training courses, has just begun another in Smithtown, L. I., a new territory, under supervision of Morris L. Blucher. . . Jess Newkirk of the Kendall Lumber Co., Kendallville, Ind., was elected president of the Indiana Lumber & Builders' Supply Association. Robert N. Jennings of New Castle and Philip P. Bash of Huntington are vice presidents. . . Western Fairfield County, Conn., one of the state's most active building areas but without organized home



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

builder representation for years, has just been added to the territory of the Greater Bridgeport Builders Association, reports Augustus J. Pace, president. The change brought about a new name: Fairfield County HBA.

Three major lumber concerns of Cleveland are now one. The former Euclid Avenue Lumber Co., Harvard Lumber Co. and Cleveland Lumber & Door Co. have been merged into the Cleveland-Harvard Lumber & Door Co. Don Beaumont of Cleveland L&D heads the new corporation. . . R. F. Henrichs has been appointed managing director of a merchandizingnewly created management clinic department of the Northwestern Lumbermens Assn. He will conduct three-day and oneday clinics in key cities. . . Monthly inventory of unsold homes and new starts in Dayton survey, finds greatest proportion of "unsold" in \$15,000-\$18,000 bracket. Result, no such starts were planned in April, but builders were concentrating heavily in under-\$13,000 range and the \$18,000-\$22,000 bracket. . . .

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 each area to determine AVERAGE and LAST YEAR Operational Days. ESTI-MATES are generally applicable to each area. Precipitation and temperatures ex. treme 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.

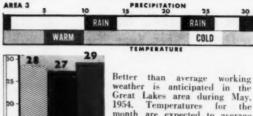
AREA 1	5	10	PRECIPITATION 15 20 25 30
		SHWRS	RAIN
- TELEVI	WARM		COLD
			TEMPERATURE
30- 25- 15- 10- 5- 0 P L K		ESTIMATE 31	The weather during May, 1954, in Area 1 is expected to be characterized by working condi- tions less favorable than usual. Considerable variation in both temperatures and precipitation is anticipated. In the eastern sectors, warm and dry weather is likely to occur while in the western portion, colder and wet- ter than normal weather is ex- pected. In May of last year, colder and somewhat wetter con- ditions were recorded in Area 1.

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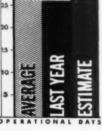
AREA

Last May, this cental 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 antici-pated. The number of opera-tional days, therefore, should ex-ceed both last year's total and the long-term average.

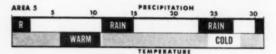


Temperatures for the month are expected to average above normal over most of the area, and rainfall totals should range from near to below normal. Thus, the number of days free of restrictions due to the weather will be greater than the average. Last year in May, somewhat warmer and wetter weather was observed.





wet conditions, the number of operational days equalled the long-term average. During May, 1954, warm weather again is expected to prevail. Rainfall amounts, however, are likely to be near normal for the month. Thus, Thus, operational conditions should be slightly better than normal during May, 1954.





Warm and slightly wet weather prevailed in Area 5 during May of last year. At scattered locations, however, very heavy rains occurred. For this coming May. occurred. For this coming May, New England will experience warmer than usual temperatures once again. Rainfall totals for the month are not likely to ex-ceed normal in this area. Never-theless rainfall totals theless, rainfall amounts in excess of the critical value are expected to account for several lost working days.

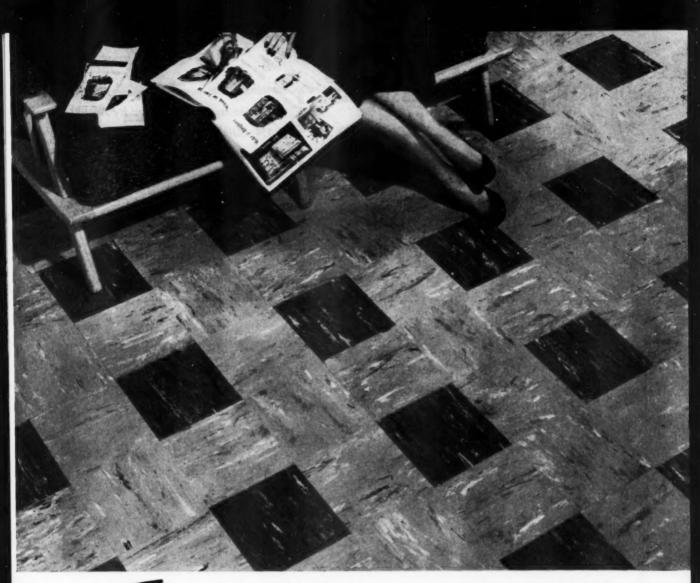
Thunderstorm....Cloud Gone Wild

Thunderstorms occur with greatest frequency during the afternoons (usually, the period when it's the hottest). The highest number of storms occur in Florida, around

Tampa, with the Rocky Mountains a close runnner-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.

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

When the air rises high enough, whatever the reason, it cools with elevation reaching its dew point or condensation level which causes 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.







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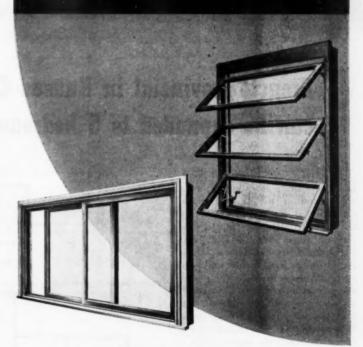
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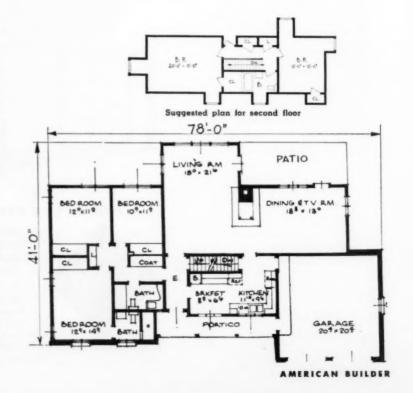


French provincial in Kansas City can be expanded to 5 bedrooms

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 allpurpose 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.

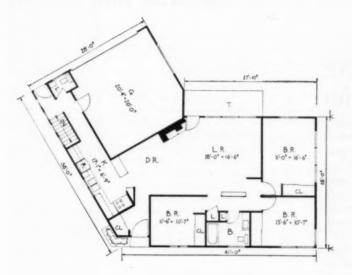


20-N



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.





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FOR BUILT, INS AND STAIR WORK



22-N

Fridley, Minn.-



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.



Sketch of laundry-dising-kitchen area



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"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.

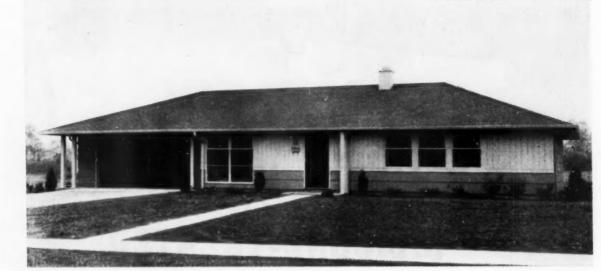
"Century" Shingles are sold by more than 700 distributors. Ask the K&M distributor near you about new Silicone-treated "Century" siding or write to us for complete information.

There are six "Century" Shingles now Silicone-treated. In style # 58: (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.





America's first maker of asbestos-cement shingles



Fort Wayne model which led to 44 sales

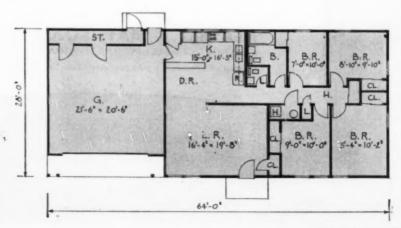
Spacemaker Homes, Inc., built this model last year in Indian Hills addition, Fort Wayne, Ind., furnished it and then proceeded with a year's production of 43 similar houses, selling all before completion.

Real sales aid was a plot plan of the complete proposed street with 1/16-inch scale front elevation of each home placed to show site. exterior finish, colors.

Buvers 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

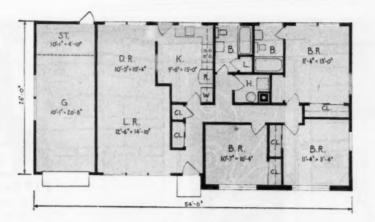
BRAND NAME PRODUCTS USED American-Standard bath fixtures Architectural ceramic file Bell & Gossett pump Carbin door hardwore Fiberglas insulation Fries roofing General Motors radiant heat coil tubing Machmeister asphalt file Kewanez-Rass boiler Kitchen Maid cabinets Libbey-Owens-Ford Thermopane Lightolier electric fixtures Maas & Wolstein Plextone interior paint McKee garage door Minneapolis-Honeywell Moduflow controls O'Brien exterior paint Siaol-Kraft vapor barrier Smith Permoglas water heater U. S. Gypsum drywall Ware aluminum windows Woodall Glide-All sliding doors fan



Plan shows compact arrangement of four bedrooms, open style living-kitchen area

Haddonfield, N. J.-

two-bath rancher a popular style in south Jersey





BRAND NAME PRODUCTS USED

BRAND NAME PRODUCTS USED AllianceWare and Briggs plumbing fixtures Arctic and Serpentine roof shingles Alwintite windows Bendix clothes wosher Bethlehem Steel nails Bradford water heater Fiberglas insulation Kentile asphalt tile Kwitset locks Minneapolis-Honeywell thermostat Supradoor asphalt shingles Thatcher boiler US Gypsum and National Gypsum insulation Wincroft gas range Woodall Masonite sliding doors In an endeavor to provide maximum space at minimum cost, the Goodwin Housing Corporation adopted this threebedroom, 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 54½x26 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.



FITS-ALL NO. 5

Gracefully designed, yet fully adjustable for nearly all wood or metal doors! Made of silvery-satin Alacrome that will not rust or tarnish. Patented holder makes installing easy!Surface clamps for fastening grille to outside of door included.

Attractive Display Carton Shows 'em and Sells 'em!

Each grille packed in individual, colorful carton with complete instructions for installing and suggestions for arranging scrolls. Really an eye-catching display!

Beautifies Screen Doors. PROTECTS THEM, TOO !..

FITS-ALL NO. 1—Instantly adjustable to all screen doors. Accordion-like action permits expansion from 16° to $30\frac{3}{4}^{\circ}$ in width between stiles and from $40\frac{1}{2}^{\circ}$ to $30\frac{3}{4}^{\circ}$ high. Squared up size is $30\frac{3}{4}^{\circ} \times 30\frac{3}{4}^{\circ}$. Packed 12 to carton—screws furnished. Made of Alacrome—silvery-satin finish.

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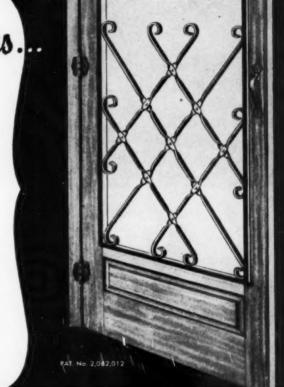
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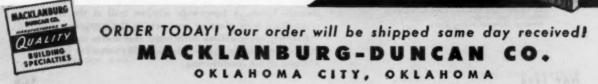
FITS-ALL NO. 2—For doors with divided sections. Each side adjusts from 13° wide and $19\frac{3}{4}^{\circ}$ high to $14\frac{1}{2}^{\circ}$ wide and $17\frac{1}{2}^{\circ}$ high. Will not rust or tarnish. Packed 12 pairs to carton.

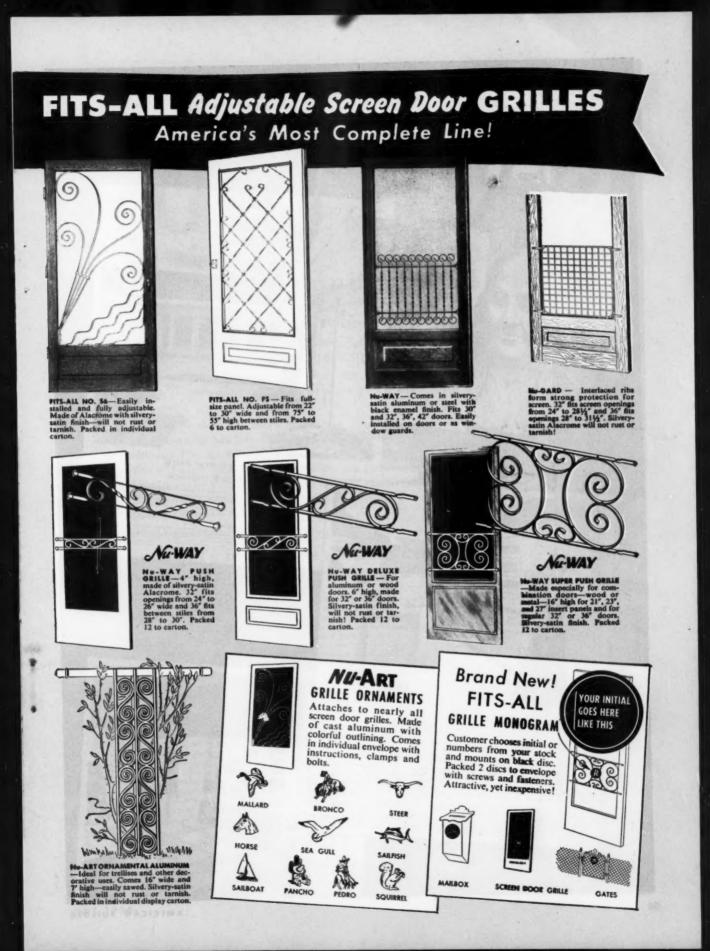
FITS-ALL NO. 3—For lower section of door with cross-bar. Fully adjustable from $14^{"}$ wide and $32\frac{1}{2}^{"}$ high between stiles to $25^{"}$ wide and $25^{"}$ high between stiles. Silvery-satin Alacrome finish. Packed 12 to carton.

FITS-ALL NO. 4—For upper section of doors. Adjusts from 191/2" wide and 34" high between stiles to 333/3" wide and 203/4" 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 2434" wide to 27" high. Squares up at 26" x 26". Packed 12 to carton.









Ponderosa Pine's "Big Time"

POSTpromotion

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-

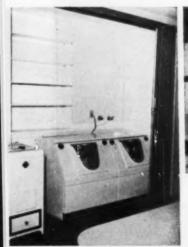
contemporary unit has double-duty gallery

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.







Three views of the extensive work center area. At left are washer, dryer, and gas incinerator, which can be quickly shut out by folding door



AMERICAN BUILDER

30-N



SECOND FLOOR PLAN

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.

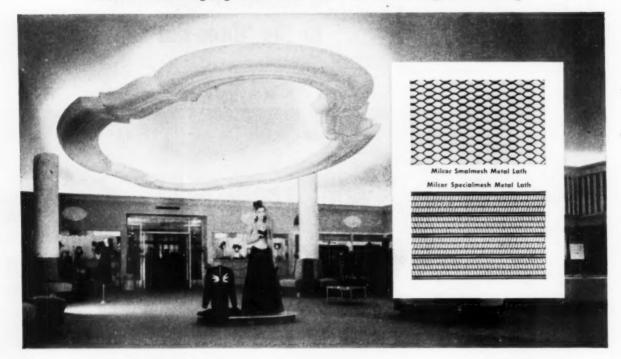
Leslie Markovich, secretary of Pioneer Builders. Inc., of Milwaukee, had an idea several months ago to build threesuite houses for income purposes, has just completed two like that shown on this page. A brick veneer two-story building, it has a conventional two-bedroom flat downstairs, designed for owner-occupancy. 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 \$30 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





Below: Note how the back surface of plaster on Milcor Metal



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.

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4025 W. BURNHAM STREET . MILWAUKEE 1, WISCONSIN

BALTIMORE 5, MD., 5300 Pulaski Highway — BUFFALO 11, N. Y., 64 Rapin St. — CHICAGO 9, ILL., 4301 S. Western Bivd.—CINCINNATI 25, OHIO, 3240 Spring Grove Ave. —CLEVELAND 14, OHIO, 1541 E. 38th St.—DETROIT 2, MICH., 690 Amsterdam Ave.— KANSAS CITY 41, MO., P. O. Box 918 — LOS ANGELES 58, CALIF., 4807 E. 49th St. — NEW YORK 17, N. Y., 230 Park Ave. — ST. LOUIS 10, MO., 4215 Clayton Ave. M-1330



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.

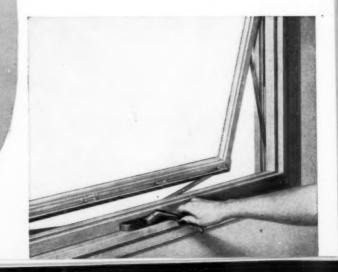
OF THE NEW FLEXIVEW

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 WINDO-WALLS 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. WINDOWALLS 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 n

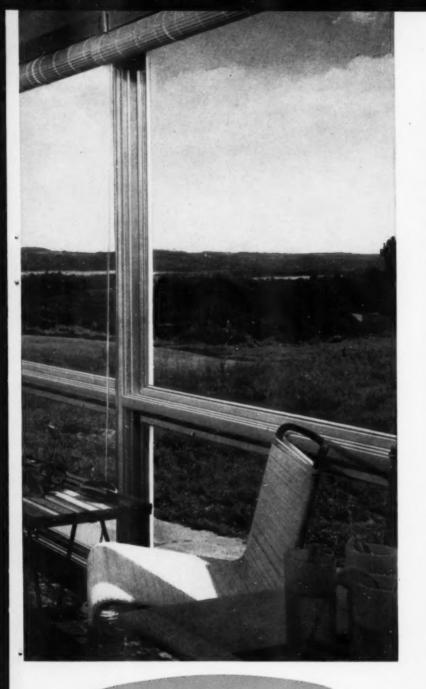
PICTURE WINDOW PARTNER TO THE FLEXIVENT

window

NEW UNDERSCREEN OPERATOR FOR THE FLEXIVENT

perator

Roto Lock



FLEXIBL



vilar than any other window we he says William Pearce, executive y dent of Pearce & Pearce Co., b Green Acres Village near Buffalo, workmen Install group of Flex Green Acres home.

"With Flaxivents we can provi more window area at no extra co William Coffman, presidentofW. D Co., builders of 175-unit Prairie suburban Minnespolis, Minn. Pict effective use of Flaxivents in Prairie Village home.

"No better window for an easy than Flexivent due to ease and e assembly and installation," any Komreich, president of Chestnut Ing Corp., builders of 450 home Hill Estates (above) near Newark,

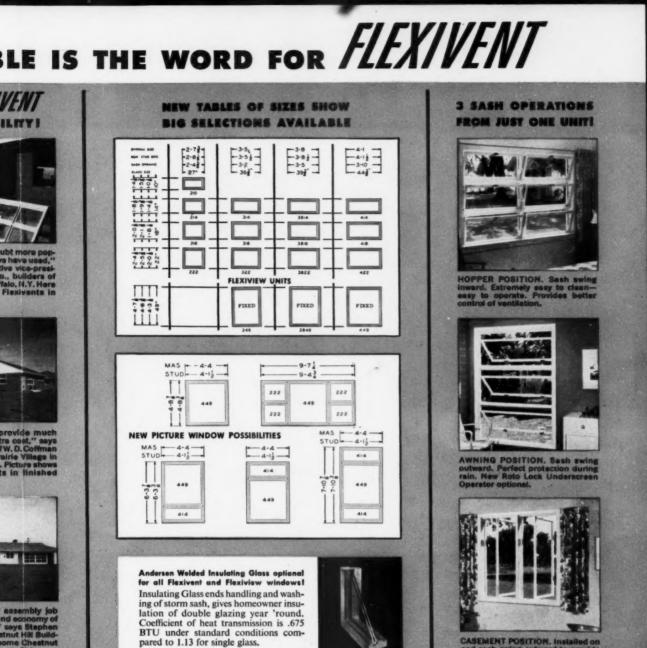
ROTO LOCK OPERATOR

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.

Andersen Corporation BAYPORT, MINNESOTA



COMPLETE WOOD WINDOW UNIT



CASEMENT POSITION. Installed or end sash swing outward to provide an excellent low cost casemen window

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Easy to operatel Operation is easy and simple. Friction hardware will ho'd 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.



ap



NITS

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 personto-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 oneweek 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 Pavroll 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-toperson 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.

The United States Government does not pay for this advertising. The Treasury Department thanks, for their patriotic donation, the Advertising Council and

AMERICAN BUILDER





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?



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."

More builders every day



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

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MAY 1954

380 Madison Avenue

Eljer fixtures used throughout this fine example of the newest in office construction for old New York

OWNERS: Uris Brothers Company Ancurrects: Emery Roth & Sons GENERAL CONTRACTORS: Caudiacell-Wingate Co. FLUMBING CONTRACTORS: Wachtel Plumbing Co., Inc. WHOLESALE DISTRIBUTORS: Glubber Inc.

Typical Eljer fixtures in use at 380 Madison Avenue.

Eljer, the only name you need to know in plumbing fixtures



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 castiron, 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.

ELIER



ON THE NATIONAL FRONT

Hollyday Out; White House Announces Probe of FHA

Mason Named Acting Head; Cole Charges 'Serious Irregularities'; Congress Holds Up Housing Bill

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. Mc-Kenna, Los Angeles attorney, and Lester Condon, former chief investi-

Appointed

MAY 1954



Norman P. Mason

gator of the House government operations committee, will direct the HHFA activity.

At press time, there were strong indications that the administration's housing bill would be delayed for months. Senator Homer Capehart, chairman of the Senate Banking Committee, said his group would hold up action until the investigation is completed. The committee, he added, might conduct its own investigation.

The Title I investigation arose from "widespread and numerous" cases in which home owners have been cheated by high pressure home improvement and repair salesmen. These "dynamiters," Cole said, worked in bands and moved from city to city.

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 largescale New York City housing developer.

Other top FHA officials will be affected by the sweeping investigation. 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 2¹/₄ per cent.

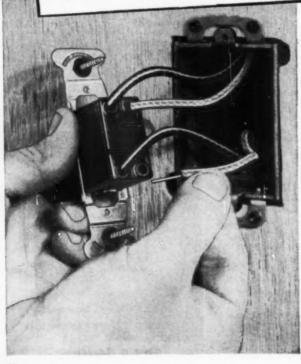
Resigned



Guy T. O. Hollyday



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 depreases the clamp spring and unlocks the conductor for quick release. No time-consuming looping of heavy wires, no splicing, no soldering or taping.



AMERICAN BUILDER



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

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15-AMP-120 VOLT AC ONLY 277 VOLT AC ONLY

EDCK TERMINALS

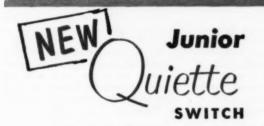
D 50 POUNDS

Silver Alloy Contacts

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- Strong Mechanical Connections
- Takes No. 14 or No. 12 Wire
- Underwriters' Laboratories Approved

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The JUNIOR QUIETTE SWITCH for residential use in homes - and The JUNIOR QUIETTE SWITCH for residential use in homes — and motels — is designed for users and contractors. Each job's more profitable because each job goes faster. Compactness gives more working room; WIRE-LOCK terminols 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 hears out dut by fitting stands into the mollate onesing.

keeps out dust by fitting snugly into wallplate opening. A ground feed thru shunt in single pole models saves you splicing, soldering and taping.

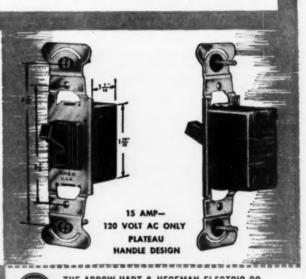
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SWITCHES" FOLDER COMPLETE

WITH ORDERING INFORMATION FOR JUNIOR, INTERCHANGEABLE

AND LIFETIME QUIETTE LINE.

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THE ARROW-HART & HEGEMAN ELECTRIC CO. 103 HAWTHORN STREET, HARTFORD 6, CONN., U.S.A. Please send me the following:

1

"NEW QUIETTE SWITCH" Folder.

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ZONE	STATE	AB
		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.
- The Senate Banking Committee completed hearings on a similar bill in mid-April, and began readying the measure for Senate action. Debate on the bill was expected to begin around May 15.
- 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 powers to control interests 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 Houseapproved 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 twofamily houses built with FHA and VA assistance.

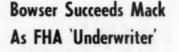
House action on the housing bill still is not final because the Senate may make numerous changes. In that case, a conference committee representing the House and Senate will have to be appointed to iron out differences.

"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.

'Most Comprehensive and Imaginative'



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.



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"



MORE HOUSE FOR THE MONEY!

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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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:

	Per-cent of total closed during fiscal year—				
Range	1953	1952	1951		
Less than \$8,000	16.6	18.6	32.8		
\$8,000 to \$9,999	23.6	30.3	37.2		
\$10,000 to \$11,999	31.0	27.8	17.6		
\$12,000 and over	28.8	23.3	12.4		

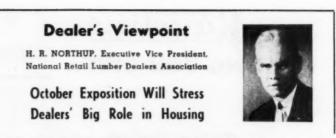
More recent figures confirm the trend. In February of this year, only about 30 per cent of homes purchased by veterans were under \$10,000. About 40 per cent were in the above-\$12,000 class.

Meanwhile, the extent to which Korea veterans are entering the housing market is shown by VA. Since mid-1952, when the VA loanguarantee 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 selecmaterials, 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.



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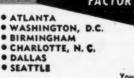
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mum blade life ... increased production.

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

Prices are lower—though costs are not. We have lowered our gross margin substantially to give you bedrock prices. A real investment in your success—and your profit.

Our line is deeper, more diversified than ever. From space heater to complete year-round air conditioning, there's a Coleman 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 units in 2, 3 and 5 ton capacities, gives you top-to-bottom coverage.

Coleman engineering improves each product. Top talent in design and application gives Coleman products top billing in customer acceptance. Coleman's continuous 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 homebuyer acceptance of Coleman in your area. A Coleman Blend-Air in a home you build is a plus with your prospects!

Coleman stands behind its line-stands behind you-with a program to help you sell homes faster. Remember, only Coleman guarantees your prospects satisfaction with a \$1000 Comfort Bond. See your Coleman distributor today-write us if you need his name and address.

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Coleman Bland-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.

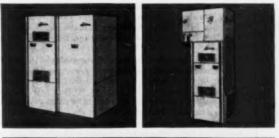
Now 3 models Water Misers (compressor-condenser)! Two, 3 and 5 ton capacities. They install anywhere—in garage, for instance. Coleman Water Misers cut cooling water costs 97%, electricity 25%, eliminate cooling tower problems. Water Misers operate more economically, with less noise, and are more accessible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

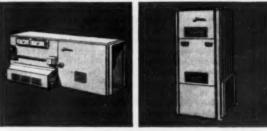
New Blenders! Ceiling Blenders direct air flow to outside walls and windows for better perimeter cooling and heating. Ideal for kitchens, bathrooms, etc., or to supplement outlets in large rooms. Install with minimum cutting, eliminate redecorating expense in old homes. They install quickly, easily.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

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Dickerman's Column

John M. Dickerman, Executive Director, National Association of Home Builders of the United States



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 home building industry, including the mortgage lenders, must begin raising its sights.

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.

October Conventions

The National Hardwood Lumber Association has announced its 57th annual convention will be held October 5-7 at the Rice Hotel, Houston, Texas. Shortly after, on October 15-16, the Architectural Woodwork Institute, trade association for millwork manufacturers, will hold its second annual meeting at the LaSalle Hotel, Chicago.

New Work Sets \$7.3 Billion Peak For First Quarter

Value of new construction during the first three months of 1954 totaled \$7,283,000,000 to establish a new record for the period, according to the latest joint report of the Departments of Labor and Commerce. The figure was \$108,000,000 higher than the previous peak, set last year.

After adjustment for seasonal factors, new building activity was running at an annual rate more than \$2 billion ahead of the \$34 billion government forecast for the year.

Sharp increase in private housing work during March was credited for most of the increased pace. In March, new work on residential building rose 11 per cent over the February total to \$854,000,000, came within 1 per cent of equalling the March, 1953, mark. Total construction valuation for March was \$2.5 billion, of which nearly \$1.8 billion was attributed to private spending.

March Starts 97,000; All but 1,200 Private

Housing starts in March totaled 97,000, according to the tentative report of the Bureau of Labor Statistics. a 25 per cent improvement over the February survey.

Although the figure was 8,800 below that of March, 1953, an unusually high amount of private starts, 95,800, was within 300 units of such work a year ago.

For the first quarter of 1954, total starts were 236,000, compared with 257,100 last year. Figuring private starts alone, the gap was narrowed considerably, a new total of 232,300 comparing to 238,100 last year.

Prefabricated Home Group Elects O'Brien

Gen. John J. O'Brien, president of United States Steel Homes, Inc.. New Albany, Ind., housing subsidiary of U. S. Steel Corporation, was elected president of the Prefabricated Home Manufacturers Institute, Washington, D. C., at the group's eleventh annual convention held recently in Chicago.

Other officers elected were Peter S. Knox, Jr., Thomson, Ga., vice president, and George E. Price, Lafayette, Ind., secretary-treasurer.



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 appear-

ance, 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.



Reznor suspended unit heaters have thousands of applications in store-rooms, offices, factories and homes. Eight models --25,000 to 200,000 BTU. Reznor sus beaters have — 20,000 to 200,000 b 10. Reznor gas heaters have been setting high stand-ards of economy and effi-ciency since 1886. Take advantage of this experi-tion of the setting have advantage of the setting have advantage of the setting have advantage. ence when you plan any heating installation.



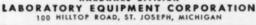
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Now ... America's largest-selling magnetic latch at this amazingly low price! Positive, lifetime power . . .

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> 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 chalance and efficient scheduling wire found

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.

• F&S Construction Co., volume builders of homes in Tucson, Phoenix, Denver and Salt Lake City give the home buyer a lot for his housing dollar. They offer values typified by these two and three bedroom Hoffman Homes in Tucson which sell for \$7500 and \$8500 respectively.

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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.

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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!

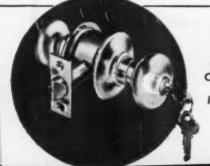
You'll see these locks in a lot of places... for dealers have ordered more mounted samples than we've ever been asked to supply for any lock. But don't stop with seeing them! Try low-cost Guardian locks. Find out these money-saving facts for yourself! The Guardian is engineered and manufactured specifically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

Save money with these BORING JIGS



No. 080 Boring Jig for Corbin Guardian Cylindrical Lock saves time . . . insures a perfect installation job. Mortising tool for latch fronts, and boring bits also available.

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





for light construction. 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; rustresistant interior parts. Fast, foolproof installation. Corbin pin-tumbler security.



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)

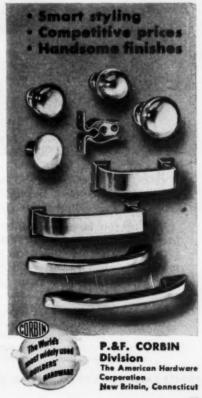
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NEW CABINET HARDWARE

It's the "luxury line at moderate cost"! New Cabinet Hardware by Corbin has a solid "feel" and rich appearance that adds the final touch of quality to your cabinet doors. Available in Solid Brass or Pressure-Cast metal in rust-proof, non-tarnish polished chrome or brass finishes.

Order from your Corbin dealer!





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.

PORTER-CABLE MACHINE CO., 2005 N. SALINA ST., SYRACUSE 8, N.

⁴ 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. • 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.

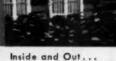


AMERICAN BUILDER

"SHOW-HOUSE" features MOE fight

The Saturd

in the May 1st issue of



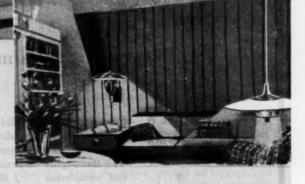
Inside and Out... it's MOE LIGHT These are examples of interior and exterior "Inspiration-Lighting" as featured in the "Show-House" ad.

Inspiration-Lighting by MOE fight

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.

.

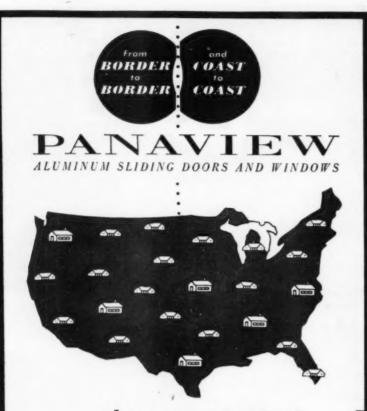


Hundreds...even thousands of your prospects will read this ad-many will send for the "Show-House" plans. Each plan specifies Inspiration-Lighting by Moe Light exclusively.

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 eccent lighting)

dinsen, Wiscensin enclosing \$1.00 for your new book "Your and Inspiration-Lighting." If I am not com- y satisfied, I can return it to Moe Light 10 days and receive a full refund. 88 Zone State
y satisfie 10 days



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% weatherstripped 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



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 i ght 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.



Statistic Contraction of the State

HERE'S THE INSIDE STORY

ON BATHROOM VENTILATION!



This specially designed ventilator, delivering 100 CFM, quickly rids every

Time-Delay Switch

bathroom of steam, lingering dampness, foggy mirrors and odors. Model 1201 is available with the exclusive Trade-Wind Time Delay Switch which can be set to turn off the ventilator at any time up to 30 minutes. The switch fits any standard switch box. Installation is simple, even in existing houses. It can be vented

to the outside or discharged directly into the attic space.

WRITE FOR COMPLETE INFORMATION



TRADE-WIND MOTORFANS, INC.

5705 SOUTH MAIN STREET . LOS ANGELES 37, CALIFORNIA MAY 1954

keep design in mind



THOMASON



(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.

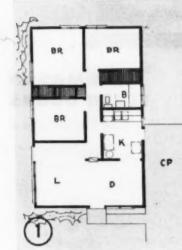
Make THOMASON Flush Doors a part of your planning. From the finest quality of foreign and domestic woods, you can choose a face veneer to suit your needs.





THOMASON PLYWOOD CORPORATION Fayetteville • North Carolina

6 WAYS to vary a basic house





BUILDER:

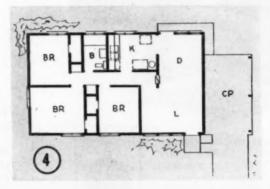
Walter Bollenbacher— Louis L. Kelton Los Angeles, California

ARCHITECT:

Frank W. Green Glendale, California

T HIS 960-square-foot floor plan is the only one used in a 159-house subdivision in San Bernardino, California. Every house is offered at \$8,850. 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.





Some living rooms have ceilings finished in strips of insulation board which follow roof pitch. Others are conventional ceilings with Sheetrock

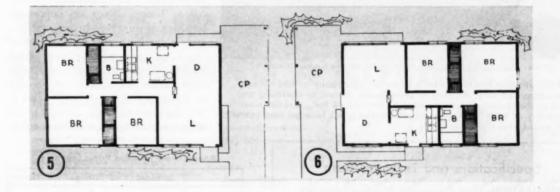


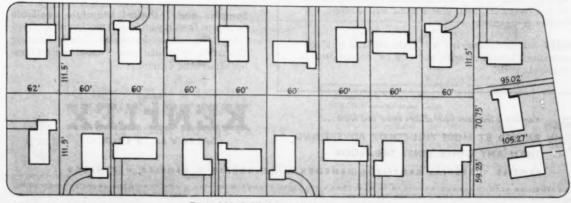




Fences along fronts are varied in type from house to house, but enclosure is completed in every case with this design using three pieces of 1x8 board applied horizontally, then vertical 1-inch board in random widths, and a 1x10 applied horizontally at top. The fence is 6 feet high

Two of the elevations: Top one is for Plan No. 1. the other is for Plan No. 5





Typical block filled in with the six variations

Specify **KENFLEX** when you want a moderate-priced vinyl tile floor



Interior design, Stanley Haggart... Photography, Maurice Bauman Studios

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 amaz-ing 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.

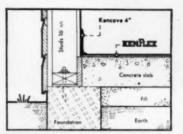
THICKNESSES: Laboratory and in-use tests have proven the wear-resistance and durability of vinyl flooring. Consequently, Standard Gauge (1/16") is recommended for normal residential and commercial uses. Where traffic will be severe, 1/8" KenFlex is suggested.

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.



KenFlex is the floor your clients know and want ... CKED BY MORE FULL-COLOR ADVERTISING HAN ANY OTHER VINYL TILE FLOOR





Above detail illustrates how KenFlex is installed directly over concrete. Prime coating of concrete is unnecessary.

Your clients would want KenFlex even if it cost much more than it actually does! KenFlex gives every advantage of higherpriced floors ... can be installed where socalled "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, alkalis, 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.)

	Standard (1/16") Gauge	1/8" Gauge
KENFLEX all colors	40¢	65¢

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.



ILE . SPECIAL KENTILE . KENCORK . KENRUBBER . KENFLEX

RENTILE, INC., SE SECOND AVENUE, BROOKLYN 15. NEW YORK + 350 FIFTH AVENUE, NEW YORK 1, NEW YORK + 705 ARCHITECTS BUILDING. 17TH AND SANSOM STREETS, PHILADELPHIA 3, PENNSYLVANIA . 1211 NBC BUILDING, CLEVELAND 14, OHIO . 900 PEACHTREE STREET N.E., ATLANTA 5, GEORGIA 2020 WALNUT STREET, KANSAS CITY 8. MISSOURI + 4532 SO. KOLIN AVENUE, CHICAGO 32. ILLINOIS + 4501 SANTA FE AVENUE, LOS ANGELES 58, CALIFORNIA



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.



A

VENTILATORS

ACCESSORIES

	1232	1320	1200	04	1003	1320	1003	154	/
menican Kilichens	V	V	r	V	V	V	V	~	
COMPETITOR #1									
COMPETITOR #2		~			V				
COMPETITOR #3						~	~		
COMPETITOR #4		V		~					



DISPOSERS

American Kitchens Division AVCO Manufacturing Corp. Connersville, Ind., Dept. AB-54	
 I'd like to have "no obligation" quotation on my next kitchens. Would like literature and complete information. 	
Name	Products of
Address	Carros
CityState	I (AVCO)

5

MANA CHEPE



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. BELL TELEPHONE SYSTE





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!



NATIONAL GYPSUM COMPANY . BUFFALO 2, NEW YORK

MAY 1954





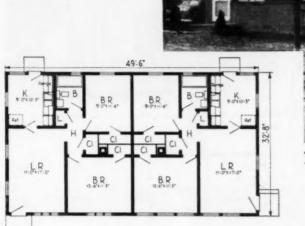
for rent or sale-

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.



There are two bedrooms in each living unit of this duplex. This plan also has that single family residence look.

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 oc-

cupants, desire or require rental income to offset a portion of the housing cost.

2. Sell buildings to small or large investors.

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

MAY 1954

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)

good look at PONDEROSA PINE take a



one of 10 woods from the WESTERN PINE region

Straight, close and uniform-grained, lightweight, lightcolored, 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

PONDEKI Write for the FREE illustrated booklet to WESTERN PINE ASSOCIATION Yeon Bldg., Portland 4, Oregon

IDAHO WHITE PINE

PONDEROSA PINE

SUGAR PINE

DOUGLAS FIR

ENGELMANN SPRUCE INCENSE CEDAR RED CEDAR

LODGEPOLE PINE

WHITE FIR

LARCH

duplexes (Continued from page 67)



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



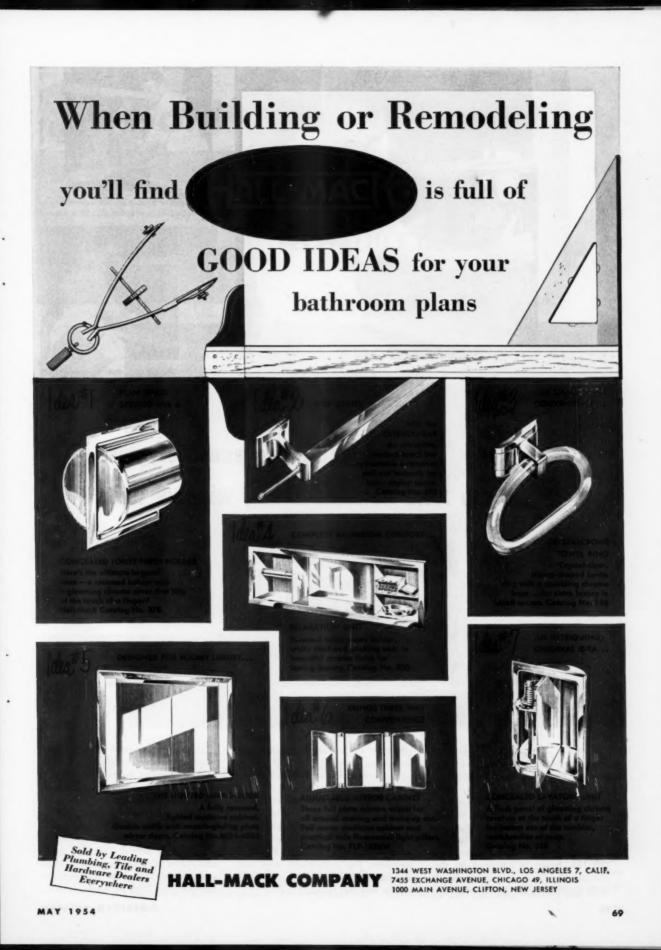
their monthly carrying obligations. Marsh emphasizes that buyers can qualify for larger mortgages (25 to 30 per cent) because rental income is taken into account for qualification purposes.

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 Richmo heaters Crawford gar **DuPont** paint Formica counter tops

G-E hot water heater Lawson bath cabinet Metal Art windows and plumbing fixtures Roddis doors Russwin hardware U. S. Gypsum sheathing





Inserting TwindoWeld unit after sash rabbet is bedded with non-hardening compound



When unit is in position, facing compound is applied before glazing stop is placed



The outside glazing stop is then nailed in position, assuring further tightness

seal edges of two panes of glass to form new insulating window units



Photos courtesy of Pittshurgh Plate Glass Co.

TwindoWeld unit is then set. and the excess glazing compound is trimmed off

The new "TwindoWeld" doubleglazed insulating window, available in four standard sizes, consists of two layers of ½s-inch-thick glass separated by a ¾₁₆-inch air space. Edges of the two panes are electrically fused, providing a glass-toglass 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

70

pressures are adjusted to enable the insulating units to withstand atmospheric pressures for altitudes under 3,000 feet.

Unit sizes of $45\frac{1}{2}x25\frac{1}{2}$ and $42\frac{1}{2}x22\frac{1}{2}$ 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 36x24 inches and $34\frac{11}{16}x22\frac{11}{16}$.

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 singleglazed windows. Heat loss is thus reduced during cold months and heat gain is cut down during the airconditioning period. TwindoWeld is also stated to minimize condensation problems, reducing the tendency for interior glass fogging during winter.

Cross-section of TwindoWeld unit, show-

ing actual glass-to-glass sealed edges

AMERICAN BUILDER

NUE GLASS-TO-GLASS SEALED EDGES



Gold Seal Ranchtile



big sales asset in the spectacular TECHBUILT house



Here's why this special inlaid linoleum

is perfect for Carl Koch's space-stretching design:

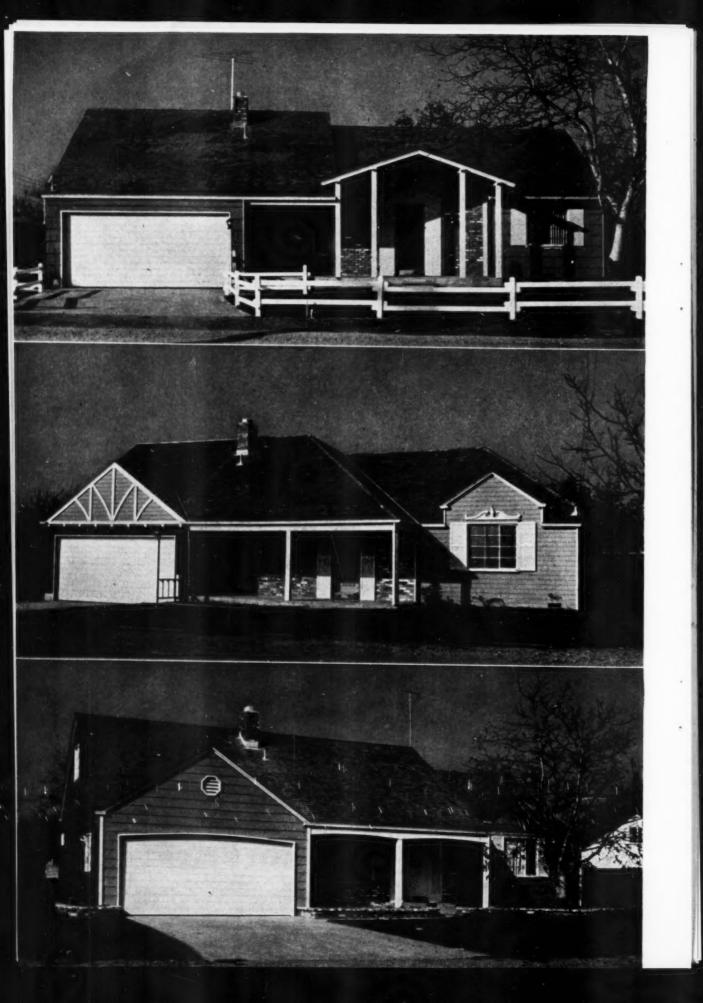
The exciting principle of the TECHBUILT house is that you can buy as much space as you'll ever need for as little as \$10,000. Carl Koch cut a substantial slice of the building costs by turning the ground level into a warm, handsome, living floor. To do this he needed a quiet, comfortable, practical 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-andgrease-resistant, Ranchtile offers the Gold Seal Guarantee . . . satisfaction or your money back. Specify Ranchtile for *your* next on-grade project.



CONGOLEUM-NAIRN INC., KEARNY, N. J. © 1954

You'll want Ranchtile information right away! For details and free sample write the Builders' Service Dept., Congoleum-Nairn Inc., Kearny, N. J



blending of styles captures sales

BUILDER:

Randolph Parks and Associates, Sacramento, Calif.

DESIGNER: Randolph Parks

AMERICAN BUILDER BLUEPRINT HOUSE

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 gatage and entrance porch are fractional so that their per square foot cost is in proper proportion with the house and gatage.

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 or 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

MORE





For information about complete one-quarter inch working plans of this house write American Builder Home Plan Service, 30 Church St., New York 7, N. S.

See Gatefold Blueprint for working drawings -quantity list of materials

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.

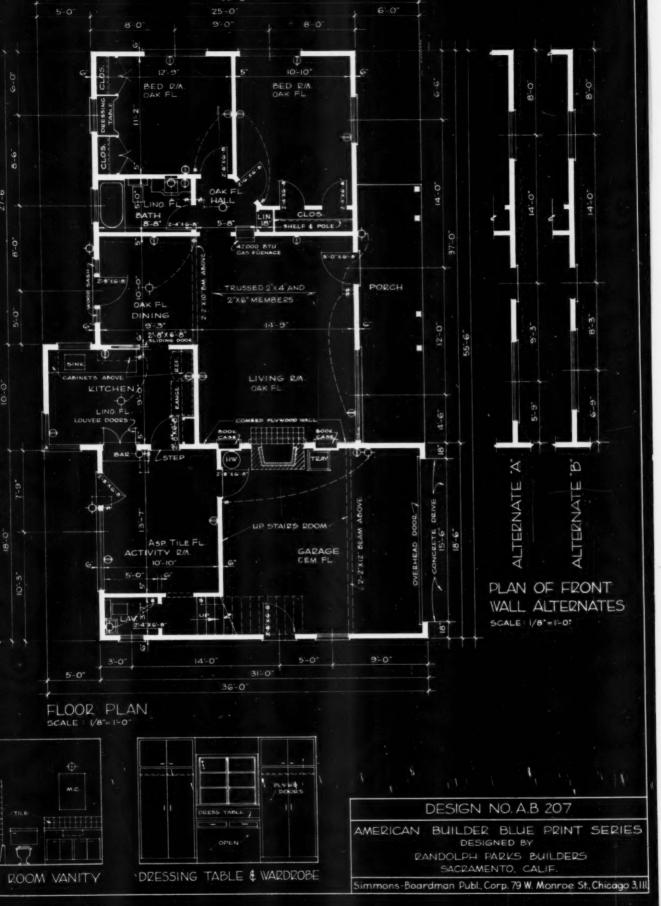


Service is made easy by a pass-thru between kitchen and activity room. When not in use, opening is covered by louvre doors hinged on the kitchen side

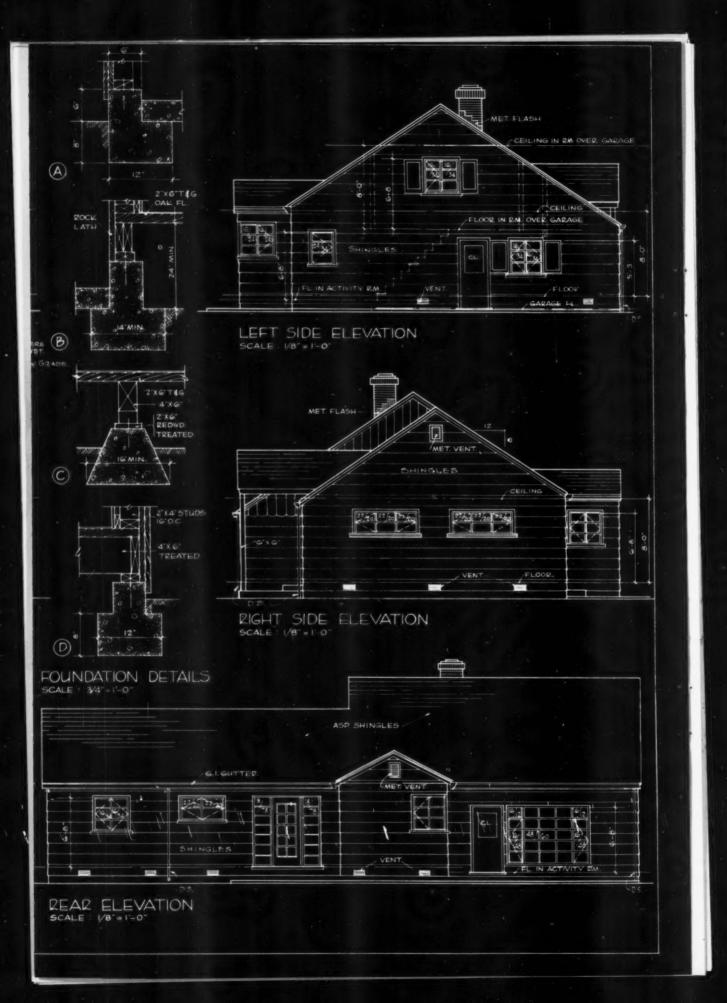
BRAND PRODUCTS USED Armstrong linoleum Armstrong asphalt tile Basco tub enclosures Briggs colored plumbing fixtures **Dutch Boy paints** Econo garage door hardware Fit-tite shakes Hall-Mack bath accessories McKinney wrought iron cabinet hardware Minneapolis-Honeywell controls Nordahl sliding door hardware Pomona ceramic tile Rheem water heater Schlage hardware Soule steel sash Standard plumbing fixtures **USG** Sheetrock







er generalen er gene



Quantity List of Materials

For American Builder Blueprint House No. AB 207

Randolph Parks, Designer

General Information

House	Type	frame	and	partial	veneer
	Over-all area including garage			. 1,55	I sq. ft.
	Cube			23,26	5 cu. ft.
	Average height taken for cul	be was	15 fe	et	
Room	over garage - 1/2 of area			119	9 sq. ft
	Cube considered in ho	use cub			

Excavating

Trench for foundation										 	2	50	li	n. ft.	
Chimney and column	footings					 				 				30	
Excavation for crawl	space .			*				 				-	37	yds.	

Cement Work

Foundations					 					*		 					2	28	0	CU.	ft.
Concrete work					 							 					6	14	0	sq.	ft.
Thickness			 																		4"
Anchor bolts					 							 		7	0	-	_	3	12	"x1	0"
Foundation Ven	12											 		1	0	-	_		6'	"x1	2"

Masonry

Walls										1	15	10)	\$	q.	1	1.		-	4'	' b	rick		ene	eer	
Chimney																										
Flue lining														2	0	1	ir	۱.	ft	. 1	12'	' d	ia.	. vi	tro	
Cap																										
Fireplace .																										
Throat and I	Da	m	pe	hr																					1	
Lintels						 	 	 	 										4		lin.	ft.	. 1	4"x	3"	
Miscellaneo																										

Millwork

Windows — Type casement and fixed
Windows — Glazed, including trim
Fixed 2 16"x12"
2 — 12"x12"
1 48"×60"
2 - 18"x78"
1 68"x60"
1 - 16"x48"
Casements
Casements
8 — 22"×20"
2 16"x48"
4 12"×48"
Exterior doors wood
Solid core
Panel door
French door
Garage door - upward acting
Exterior Millwork
Shutters
Louvers
Front entrance feature
Lattice
Interior doors, including jambs and trim
interior doors, including jambs and this $\dots 4 = 24$ to $2 = 26$ x6's"
2 — 2'8"×6'8"
Sliding door
Special Interior doors 1 pair louvered doors and bar top

Special Interior Millwork

. . .

Wardrobe and	d	re	-	sie	ng	1	=	at		¢	0	m	ь	in	0	ti	01	n				 			1	p	air
Vanity case .																			 						 		1
Linen case																			 								1
Kitchen cases .																											
Bookcases																			 		*				 		2

Carpentry

.....

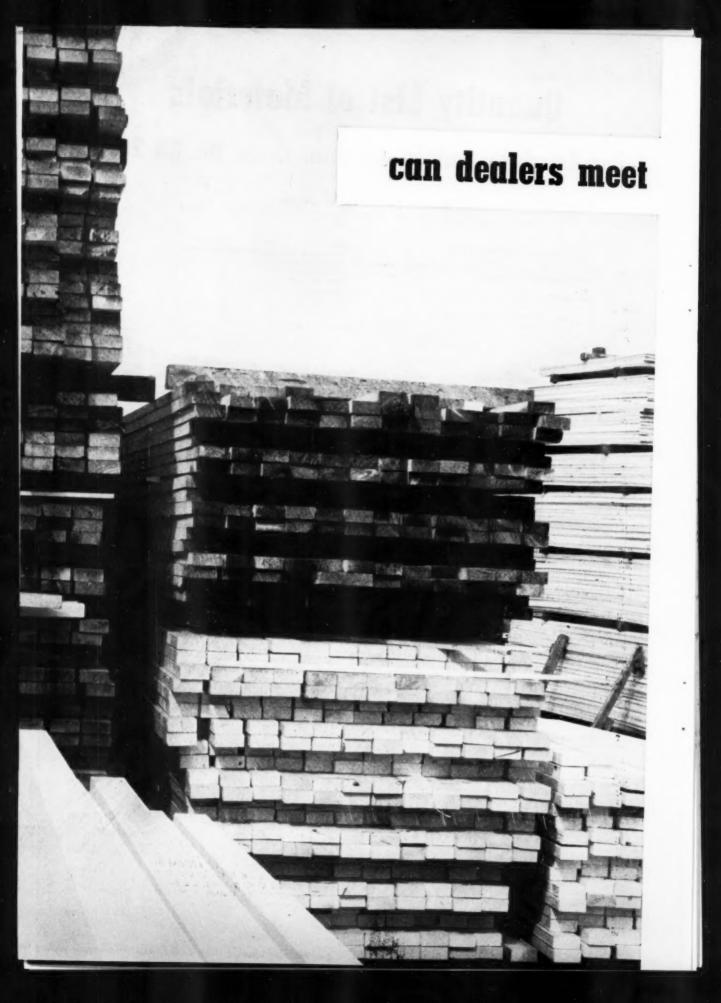
Beams and girders
2 6"x6"x12'
2 6"x6"x14'
16 — 4"x6"x14'
2 4"x6"x18'
Foundations plates
Joists included as girders above
Studding and plates
230 pcs. 2"x4"x 8'0"
30 — 2"x4"x16'0"
12 - 2"x4"x14'0"
12 - 2"x4"x12'0"
Ceiling joists
15 - 2"x8"x24'0"
5 pcs. 2"x6"x10'0"
9 pcs. 2"x4"x 8'0"
Roof rafters
23 - 2"x6"x18'0"
44 2"x6"x16'0"
6 - 2"x6"x12'0"
16 - 2"x6"x10'0"
Framing lintels
4 - 2"x10"x12'0"
4 - 2"x10"x10'0"
4 pcs 2"x 6"x 8'0"
Subfloor
Roof sheathing
Side Wall sheathing
Side Wall materials
70 bd. ft. wood paneling
Carpenter Stairs
2 Stringers
Risers
Treads
Flooring—Hardwood
Softwood 170 sq. ft.
Exterior material—
Soffits
Fascias
Phone Market
Sheet Metal
Gutters
Downspouts
Flashing
Louvers
Auters
Roofing
Tune Auctority Philade
Type Asphalt Shingles

Type		 	 Asphalt Shingles
Area	* * * * *	 	 22 squares

Interior Walls

Area to be covered 4,700 sq. ft.

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 of 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.



the challenge of direct buying?

Yes---if they are alert to the necessity of better dealerbuilder 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 byproducts 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."

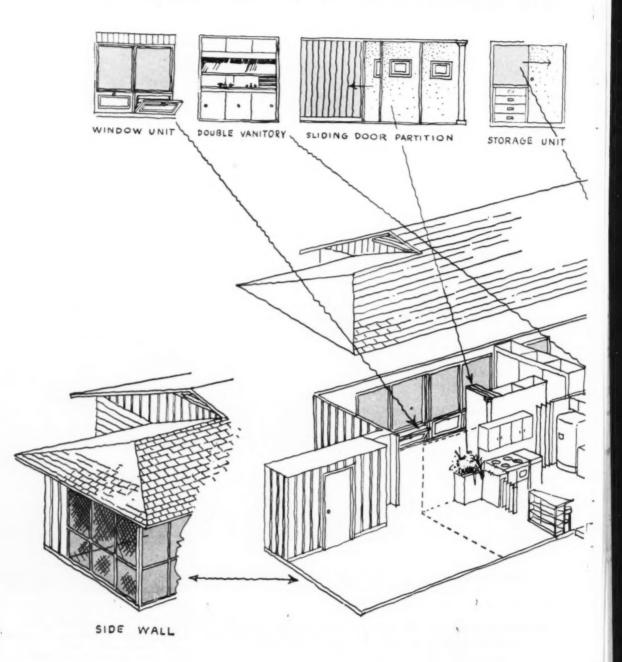
What are some of the new dealer-builder service techniques? Three loom most prominently. They are:

- **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.

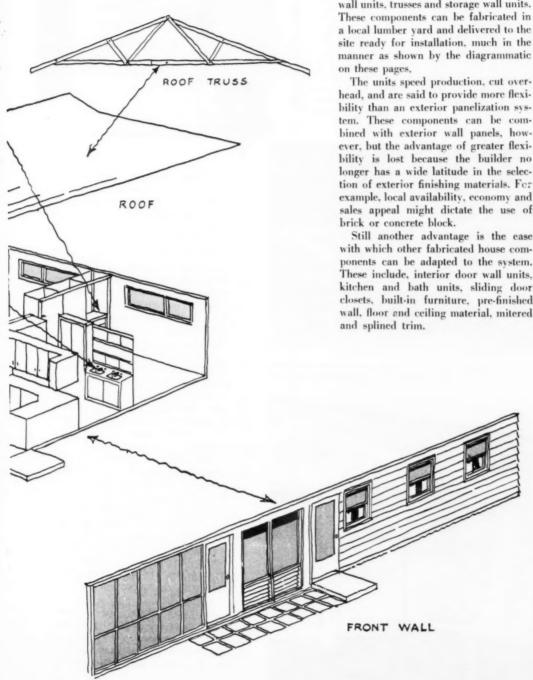


SERVICE tailored to the requirements of builder customers is the dealer's best guarantee of preserving his status in the normal distribution pattern—dealer.to builder, not mill or wholesaler to builder. Builders know that direct buying entails high overhead. Dealers will get the business if they sit down with the builder.

the component construction



technique — what is it?

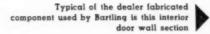


It is a system of pre-engineered structural components. precision made and standardized to a 4x8-foot module. Basic components are window and door wall units, trusses and storage wall units. These components can be fabricated in a local lumber yard and delivered to the site ready for installation, much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

head, 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. Fer example, local availability, economy and sales appeal might dictate the use of

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







Dealer delivers to job site pre-assembled wall unit: trusses for one house



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 wellequipped 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.

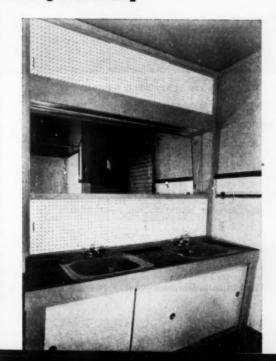
Dealer Stuart Fonde, head of the firm that supplies the Bartling operation, already is convinced of this. He plans to increase production; supply other builders outside the immediate Knoxville area. Fonde is selling material by doing much of the builders' work. For his effort, he gets the business, will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

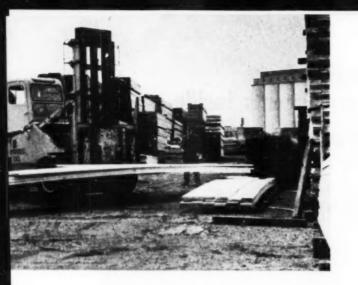
tailored components inside the house

built-in furniture



vanity-lavatory





the **PACKAGE**

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.

On the West Coast, particularly in the Los Angeles area, many builders want their lumber packaged. Some precutting also is provided by the dealer as part of the package arrangement. Lumber yards can perform this service at a cost of less than \$3 per M.

Packages usually are delivered in three loads: (1) all rough lumber up to the plate line—foundation lumber, floor joists, studs, ceiling joists and mud sills; (2) the second load consists of "elevation" lumber—rafters, roof sheathing, overhang, fascia boards, etc.; (3) finish material, interior trim, etc., comprise the third load. 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.

AMERICAN BUILDER

LUMBER DEALER-Charles A. Mitchell, General Sales Manager, Retail Division, Edward Hines Lumber Company

"Package loading reduces costs on the job site as we do the sorting job here before it goes to the site. The old way was to ship materials the cheapest way for the yard. We could load a truck in 10 minutes. Today we must have something special to sell the operative builder. Our sequence loading costs us more. It takes three to four hours to load a truck, but we save the builder more than the extra cost."

OPERATIVE BUILDER-Joe Goldman, Vice President, American Community Builders, Inc.

"It's the only way to operate. You know what materials go into a building. You know the true cost, You have no inventory problem, or extra costs of distributing the lumber around the job. When you figure everything, it might be cheaper per board foot to buy direct, but package loading is a better deal for the builder."

ARCHITECT-A. J. Del Bianco

"Package loading is definitely a time saver for the builder. It requires the least amount of lost motion. Labor is the largest single cost factor on the job. Today you must try to save excessive labor costs. With package loading, the piece of lumber you need is on the top. The cost of handling is reduced."

PROJECT SUPERINTENDENT-Harold L. Goslin H. Morton Robbins & Associates

a. Monon Robbins & Associates

"We wouldn't save any money buying direct. This method saves handling and rehandling. The lumber dealer is selling us a service for less than we can supply it ourselves. We have to cooperate—it's a two-way deal. We have to get the roads in and the back filling done so they can get the lumber next to the foundation, and in the position we want it."

CARPENTRY FOREMAN-

"We save nine man hours on each house with this type of lumber delivery, by not bering to rehandle. Before we had to handle each bering to get down to the floor joists. Now the piece we want first is on top."

LOADING technique —

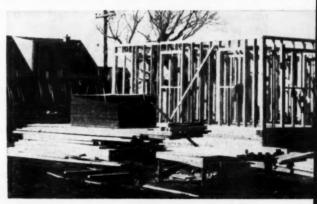
here's how it works

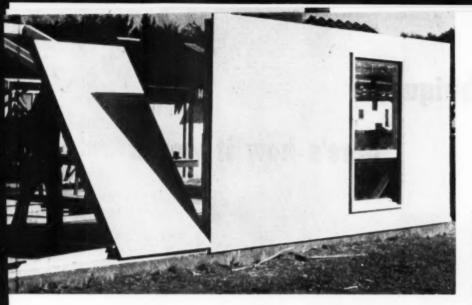


a typical Hines package load-top to bottom

RIGHT	LEFT
4x8 foot sheathing* floor joists	exterior trim [*] studs with decking at the rear
2x4 plates, cripples, etc. roof sheathing	ceiling joists roof rafters

* 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.





Wall panels developed by the University of Illinois Small Homes Council can be installed panel by panel. They are tied together into a wall by a double 2x6 inch continuous header supported every four feet around the entire perimeter of the house

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:

1.⁴ 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:

- 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.
- 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.

 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.

Principle 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 openroom 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 /s-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-

MAY 1954

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 climinating 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.

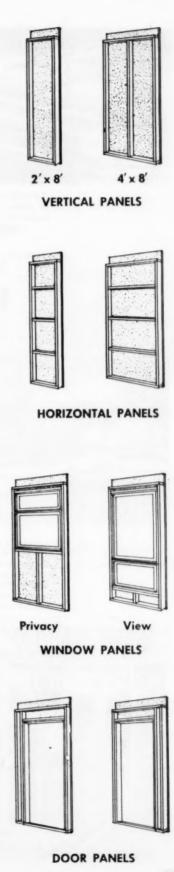
2. View windows for living and dining areas. Space is left under the window for the installation of baseboard heating units in the event these are desired.

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



89



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

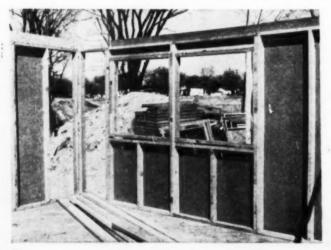


Lu-Re-Co wall panel is assembled on jig. Panels are basically a studwall framework which is covered with sheathing material and siding

Decatur builder uses Lu-Re-Co—likes it



Above is a general view of the Swartz project showing panels ready for erection. Windows are left out until panels are in place to reduce weight and breakage. Below is a view of corner section. Note that header is installed over the panels on the left



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 Swartz 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.

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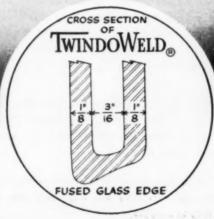
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THESE VIEWS of a TwindoWeld unit clearly show its construction. In the cutaway view in the circle, note the two panes of quality $\frac{1}{3}$ " thick Pennvernon window glass, with $\frac{3}{6}$ " air space between, which are fused electrically to form a glass-to-glass scaled edge. TwindoWeld is *all glass!* This means long life, excellent insulating properties and extreme ease of installation.

window-wall construction

TWINDOWELD® ... the first all-glass insulating window

with electrically-welded all-glass edge

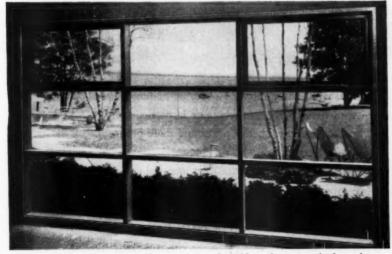
• Pittsburgh proudly presents TwindoWeld – the first electrically fused all-glass insulating window with glass-to-glass sealed edge. It is the result of years of research and test installations in scores of homes.

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 windowwall 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 ($\frac{1}{2}$ " thick), separated by a $\frac{3}{2}$ " 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 ten-



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. dency 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

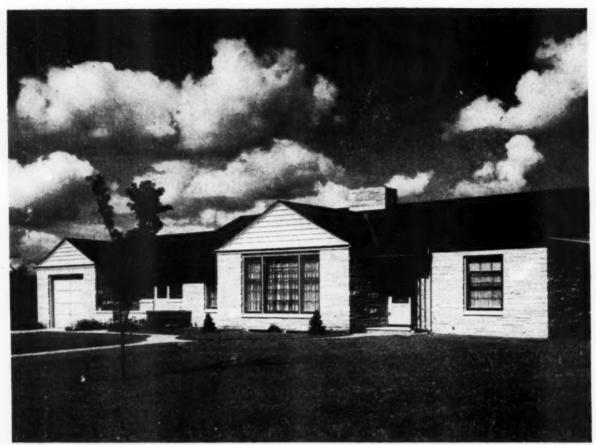
For Wood Window-Wall 45½" x 25½" 42½" x 22½"

For Metal Window-Wall 36" x 24" 341½6" x 221½6"

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

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Allen J. Ross & Associates, Architects



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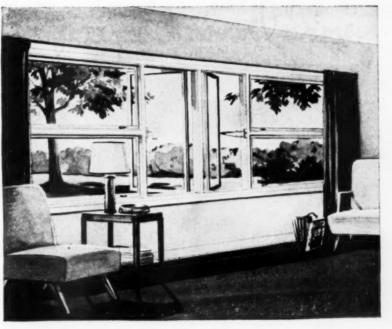


A DEPARTMENT OF THE INTERNATIONAL CUT STONE CONTRACTORS' AND QUARRYMEN'S ASSOCIATION

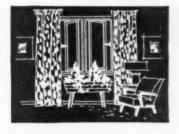
40 East 56th Street, Indianapolis, Indiana

AMERICAN BUILDER

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CASEMENTS — are surprisingly economical with this completely factoryassembled 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.

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



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.



"I revised specifications to put



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

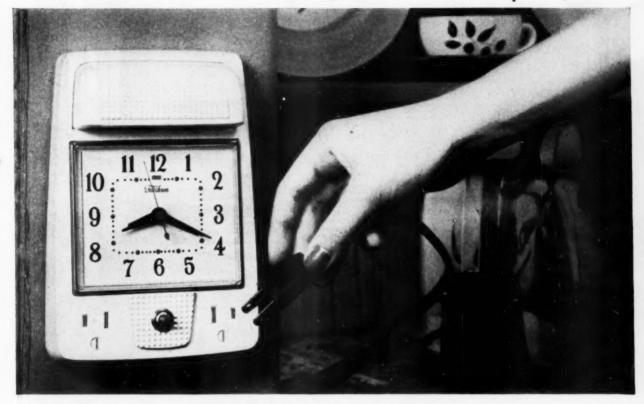
to include TEL-IN-WALL in bathrooms and kitchens."

Mr. Robert P. Gerholz, first vice-president of Urban Land Institute of Washington, D. C., former president of the National Association of Home Builders of the United States, and dynamic head of the Gerholz Community Homes, Inc., of Flint, Michigan.

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.



Tel-in-wall in my 800 unit project"



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 en-

tirely new built-in with sales advan-

tages that can't be duplicated. Its

down-to-earth price makes it com-

pletely practical for new homes and

remodeling jobs. As Mr. Gerholz points out, "The quality of today's

homes is judged by the extra refine-

ments that go into their construction.

I believe TEL-IN-WALL answers the

builder's need for such a refinement."

stall as an ordinary wall outlet-and

TEL-IN-WALL is as easy to in-



In the bathroom, TEL-IN-WALL takes shaver 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 SP52151 or equivalent.



B. Connect wires. Operates on 110 v., 80 cy. house current. Outlets rated at 15 A.



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

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.





MAY 1954

97



building a school today

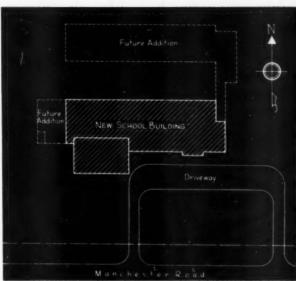
It means expansibility economy simplicity T HE unpredicted rise in the nation's population over the past 10 years has naturally created a pressing need for major additions to the public school plant. What is the size of the job?

In 1953, the U.S. Office of Education counted a total enrollment of 28,229,000 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*





Designed by Walter A. Anicka and completed last fall. Pleasant Lake School near Ann Arbor, Michigan, has six rooms, can add six more as school population grows in next 10 years. Cost of building was under \$11 a square foot, including a deep well and septic tank. General contractor was Ellis Construction Company of Detroit

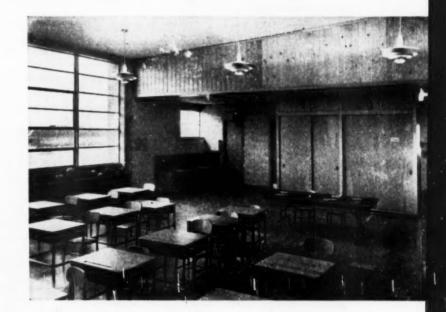
Builder through the years 1947-48.

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,

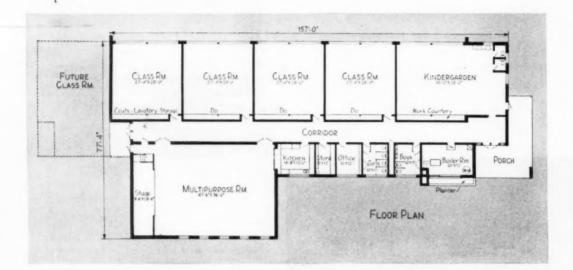
This country elementary school is located 12 miles southwest of Ann Arbor and was completed in time for the opening of the school year last fall. It is the result of four small districts getting together and consolidating as a solution to their common need for more school space. Together they launched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

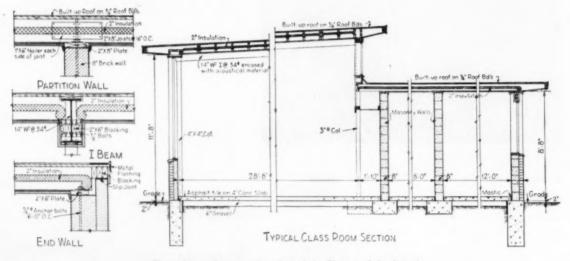
Five Guiding Principles

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 Nucite have end 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 kindergarien room





Floor plan and construction plan of the Pleasant Lake School

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 oneto-five-year-olds gave the school population in 10 years. (Another useful rule of thumb in making this calculation is to allow 11/2 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 de-

signed 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.

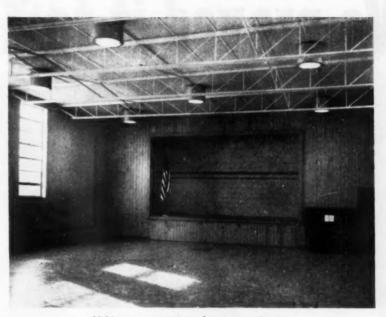
Oriented so that classrooms face north for the best light, the Pleasant Lake School gets uniform daylighting by use of a clerestory above the south or inner wall of the classrooms. To scatter the rays from the southern exposure, this clerestory is filled in with Libbey-Owens-Ford's

COST BREAK-DOWN

Bond	\$	1 172 00
	\$	1,172.00
General conditions		8,684.00
Strip site		860.00
Excavation		820.00
Interior fill		1,075.00
Exterior fill & grade		375.00
Concrete footings		2,020.00
Brick & block masonry		8,627.00
Mason labor		8,973.00
Gravel drive		1,100.00
Floor slab		5,093.00
Septic tank & field		2,180.00
Cut stone		232.00
Structural steel		3,164.00
Aluminum sash		2,287.00
Cypsum roof		1,198 00
Roofing & S. M.		2,399.00
Giass		1,000.00
Rough lumber		4,440.00
Millwork		5,060.00
Carpenter labor		7,600.00
Hardware		1,500.00
Blackboards		1,251.00
Lath & plaster		750.00
Acoustical tile		2,317.00
Ceramic tile		470.00
Asphalt tile		2,500.00
Electrical conduit, etc.		2,500.00
Fixtures		1,635.00
Electrician labor		2,003.00
Toilet partitions		530.00
		1,489.00
Cement enamel		
Fire extinguishers		152.00
Painting		2,084.00
Kitchen cabinets		961.00
Caulking		385.00
Insulation		598.00
Rough-in plumbing		2,440.00
Finish plumbing		2,273.00
Radiation		4,848.00
Controls		1,418.00
Burners, etc.		3,178.00
Tank	-	1,285.00
Total	\$1	105,926.00
Cost per square f		\$10.00
	ot	\$.83

glare-reducing "Velvex" with satinol finish. The large windows in the multi-purpose room, which faces south, have a visual band of clear glass in the lower three strips, with Velvex above. Anicka also uses 1/8inch Plexiglas, a translucent structural plastic material in a milky white color, in lieu of glass for southern exposures. A third comparable material is L-O-F's Blue Ridge frosted "Aklo."

The masonry block walls of the Pleasant Lake building are finished on the exterior with a putty-colored face brick. The building is virtually maintenance-proof, and with its automatic oil-fired radiant heating system can be operated without a custodian. Windows are set in aluminum sash which does away with painting problems. The one corridor has a wainscot of Cement Enamel, a vitreous wall surfacing which is highly glazed, washable,

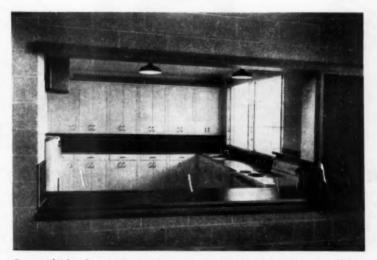


Multi-purpose room is used as gym. auditorium. lunchroom. Note 22-inch long span steel joists

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.

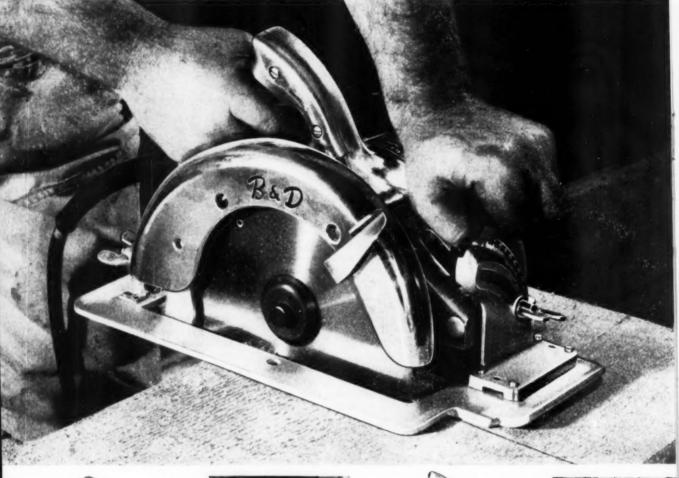
Heating is by radiant coils in the floor, except for the multi-purpose room which has two-inch fin radiation at the base of the window wall and at the midway point up the wall of the stage. The Bryan boiler has a capacity of 810,000 Btu's. Barber-Coleman controls are used, also Bell & Gossett controls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

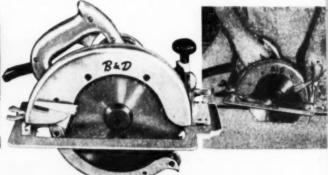


Compact kitchen has serving counter connecting it with multi-purpose room. Sliding chalkboard screens opening

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NEW B&D 8" HEAVY-DUTY SAW

NEW B&D 9" HEAVY-DUTY SAW

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.

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RIGHT ON THE JOB! To make the big B&D Saw Contest even easier for you te enter, we'll arrange to have the new B&D For address of searest dealer see "TOOLS - ELECTRIC" TELLS CLASSIFIED WHERE TO BUY IT



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Name								•						 		,								 				*
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DUAL-SHOE PARKING BRAKE—greater holding ability on heavy-duty models. NEW RIDE CONTROL SEAT^{*}—eliminates backrubbing. 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 WHELS—for increased tire mileage. BALL-GEAR STEERING—easier, safer handling. ADVANCE-DESIGN STYLING—rugged, handsome appearance. *Ottimul dt extra colt, Ride Control Seat is available in standards che only." Inhumetter 751" modes

*Optional at extra cost. Ride Control Seat is available in standard cabs only, "Johmaster 261" engine on 2-ton models, truck Hydra-Matic transmission on ½-, ¼- and 1-ton models,





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"ribbon-styled"...long-low-beautiful!

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	CITY		STATE	



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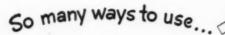
case of installation spells economy

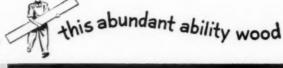


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WN-GRAVES











Weyerhaeuser 4-Square West Coast Hemlock paneling is clean and fresh in appearance—and requires practically no upkeep. The deep shadow lines of Hemlock bevel and bungalow siding accentuate the long, low lines of modern homes.

Weyerhaeuser 4-Square WEST HENIOCK

The "Ability Wood"

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.

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• Through scientific logging, accurate sawing, controlled kiln seasoning, precision surfacing, proper grading, careful handling and shipping, Weyerhaeuser provides this abundant "Ability Wood" in a wide range of 4-Square West Coast Hemlock lumber products. 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.

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Weyerhaeuser 4-Square LUMBER AND SERVICES WEYERHAEUSER SALES CO., ST. PAUL I, MININ

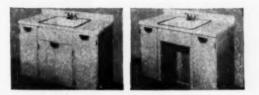
BUILD BETTER WITH HEMLOCK ... THE ABUNDANT "ABILITY WOOD" 106 AMERICAN BUILDER

PRODUCT NEWS from AMERICAN-Standard

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



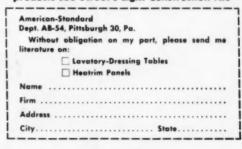
LAVATORY-DRESSING TABLES by American-Standard will add beauty and convenienceand customer appeal-to the homes you build. Each fixture combines dressing table and storage cabinet in one compact unit. Shown here are the New Dresslyn, left; the Highlyn, left below; and the Merrilyn, at right below. The 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.



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AMERICAN-Standard



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

a subdivision of **RECONDITIONED**

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, treelined 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





AMERICAN BUILDER



HOUSES

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

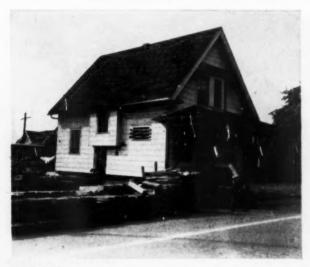
FULLER AND SCHUSTER PAID ABOUT:

\$ 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 robf 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

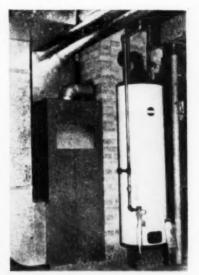
THEN THEY SOLD THE HOUSES FOR ABOUT: \$11,250 with \$2,000 down payment.



MAY 1954

109





New basement is given every Fuller-Schuster house: comes complete with new gas furnace, water heater, copper piping

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 $21/_2$ 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 pos-

House gets newly decorated interior, new bathroom with new fixtures, plastic wall tile, 4-foot mirror, fluorescent light

sibilities 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.



Rehabilitated houses are placed on 50-foot lots

AMERICAN BUILDER

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

20 Grand Prize Regional Winners • More Than 150 Local Home Builder

for Exciting

TRADE-IN HOME CONTES

See last page ...

Association Winners • Special Handicap System for Small Builders

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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 Perby) . . . 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 Acapula

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.

Dates to remember

Acapulco Derby Registration Return Cards must be in the mail by midnight ... September 1, 1954

Entry kits must be in the hands of your Local Association Executive Secretary by midnight ... September 27, 1954

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

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

NOVIDABLE 25. Following a Saturday evening get-acquainted digner 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, a history, its people, its scenery-Tuesday morning you'll fly to Acapulco, Riviere of the Americas

NOVEMBER 30 through DECEMBER 4. Tursday through Saturday you'll enjoy luxurious leisure—swimming, utiling, 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 builfight Sunday afternoon, leave for Dallas and home Monday, DiCEMBER 6.

HOMEYVELL

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 MATIONAL ASSOCIATION OF HOME BUILDERS



First in Controls

saws like wood



nails like wood



resists moisture



won't split, shatter or crack

it is wood... — from the Douglas fir forests of Oregon Tough fibers bonded with natural lignin interlock in all directions — give Allwood Hardboard strength, dimensional stability, resistance to wear and hard knocks.



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.

gon Lumber Company Hardboard Division DEE, OREGON

T.M. Oregon Lumber Co.

MAY 1954

115



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

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-

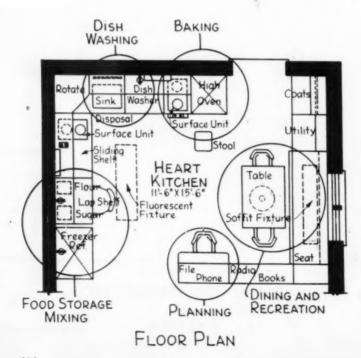
is your client a heart patient? here's a KITCHEN

pliances (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

-



SIT DOWN MIXING CENTER



TOUCH OPEN CABINETS



NEWEST COUNTER LIGHTING



ADJUSTED HEIGHT COOKING CENTER

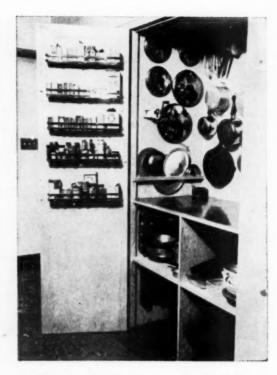
DESIGNED FOR HER



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

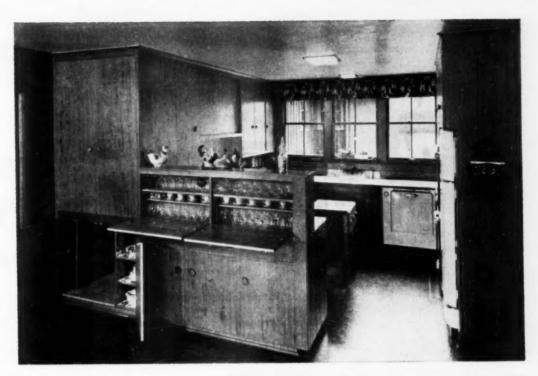


A kitchen closet for pots and pans, with spice shelves on inside face of door. Birch plycod for the door, fir plywood for the closet

ever thought of these?



AMERICAN BUILDER

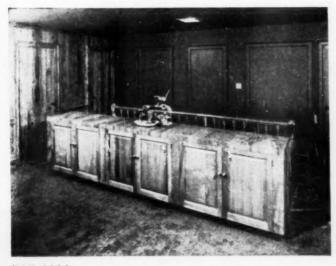


A built-in china cupboard, with plus storage, for separating dining area from kitchen. This one even includes (bottom left) a wood lift operating from basement

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.



Photos courtesy of Malarkey Plywood & Doors



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 $\frac{1}{2}$ inch of lightweight aggregate plaster.

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.

This increased fire safety is

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 $\frac{1}{2}$ " 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 NON-CLIMBABLE AND ORNAMENTAL FENCE



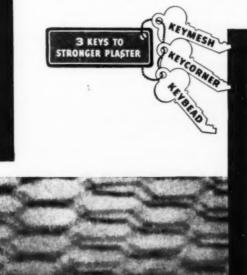
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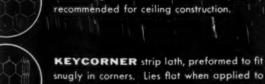
KEYMESH

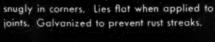
Here's all you do! After gypsum lath is applied, cover it with Keymesh. The exclusive reverse-twist weave makes it unroll flat; go up flat. It's so easy to apply. Then it's plastered, following customary practice. Proved through the years as a superior reinforcement for stucco, it now brings new value 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







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



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



INSULATING GLASS

Standard sizes

available from distributors' stocks for

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

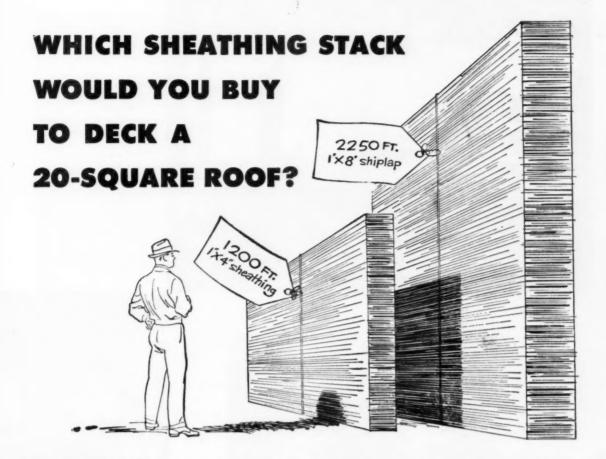
Many builders are using *Thermopane* insulating glass in every window as a sales feature to move houses faster. *Thermopane* is well known to home buyers. It's wanted.

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

AMERICAN BUILDER



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.

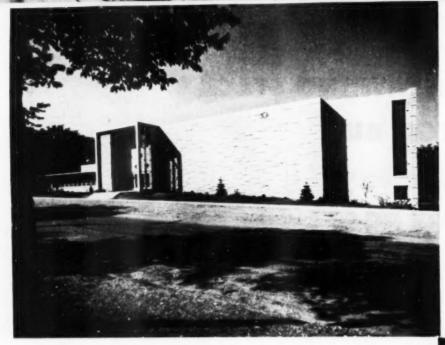
So play it smart. Cash in on the spaced sheathing principle. Put your roofing money on the roof, not under it. CERTIGRADE No. 1 shingles outlast substitutes—by decades—and make the homes you build more salable, *longer*.

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.





OWNER: First Congregational Church

ARCHITECTS: Boyum, Schubert & Sorensen, LaCrosse, Wisconsin

GENERAL CONTRACTOR: C. D. Guillaume Construction Co.,

Construction Co., Caledonia, Minnesota

Square foot area 27.224 Cost per square foot \$14





this church has built-in sociability

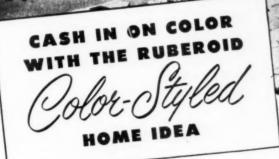
Architecturally, this church in La Crosse, Wisconsin, departs radically from the conservative design tastes of that city. Functionally, however, it provides the ultimate in facilities for the traditional need of the congregation members—a religious, educational and social center.

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)



1:

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.

The RUBEROID Co. Asphalt and Asbestos Building Materials

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

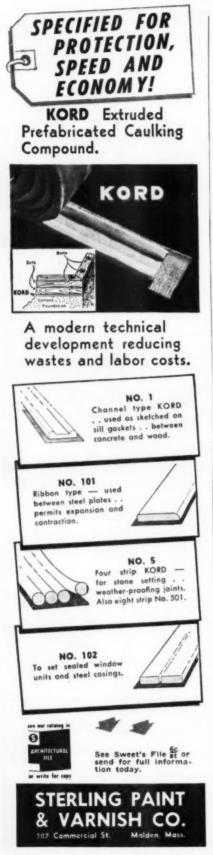
combinations with suggested trim and accent colors. It not only dramatizes exterior color styling ... it's a practical easy-to-use working tool and sales tool.

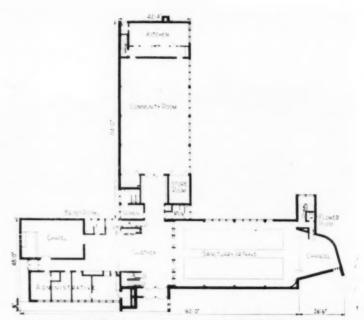
Your Ruberoid dealer has a Colorator for you to see and use, or you can send the coupon below for your own Colorator.



Dept. A, 500 Fifth	Ave., New York 3	6, N. Y.	
Please send my f	ree copy of the R	uberoid Color	rator.
YOUR NAME			
COMPANY			
ADDRESS			
CITY	ZONE	STATE	
			AB

125



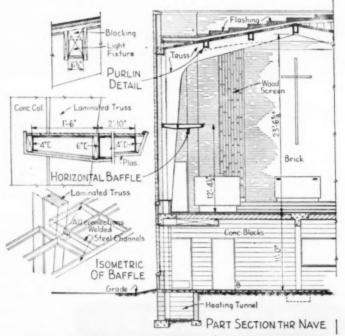


Plan of main floor, above, shows rooms used principally by adults. Ground floor (not shown) is planned for youngsters

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

AMERICAN BUILDER



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 warranty 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.

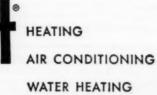
• An adequate warranty ... for 5 years on the cooling side ... eliminates service headaches for you.

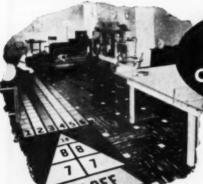
• Extremely compact design . . . requiring as little as 7½ square feet of floor space. You save substantially on space costs.

• 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.







It's easier to build a dry basement than to repair a leaky one afterward. Here's how to do it with either (1) cast-in-place concrete or (2) concrete masonry walls.

CAST-IN-PLACE WALLS



FOR ALL BASEMENT WALLS



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.



cited rorms. Coal 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.



CONCRETE MASONRY WALLS

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.

ł



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.



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.



Since the wall is only as strong and as watertight as the mortar joints make sure you compact all the joints with a jointing tool after the mortar has partially hardened.



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



Strip the forms. Remove wall ties and patch any resulting holes. Where necessary remove fins and any other imperfections with carborundum stone and a cement-water mixture.



Apply two ¼-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.

PORTLAND CEMENT ASSOCIATION Dept. 5-3. 33 W. Grand Ave., Chicago 10, III.

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.

A national organization to improve and extend the uses of portland cement and concrete...through scientific research and engineering field work



NEW PRODUCT

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.

SPENCER
VILLIAMERORT
CLIP & MAIL
Spencer Heaters, Dept. A8-5-4 Lycoming Division AVCO Manufacturing Corp. Williamsport, Pennsylvania
Please send complete information and spe- cifications on the new Spencer Rancher to:

-Osition_		
Company_		
Address		
City	Zone	State



Partition folded away in door pocket



Partition door panels are solid core with walnut veneer, natural finish

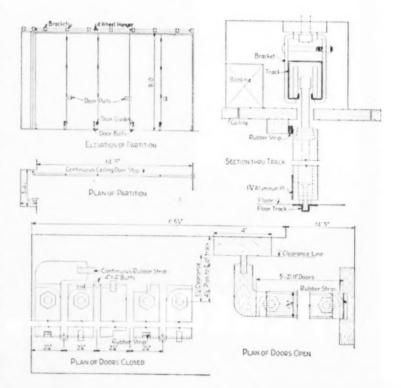
tested design for a flexible sliding partition

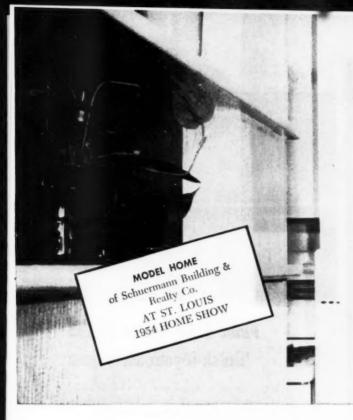
Open planning, now so popular, often requires some sort of movable screening or partitioning to give the space maximum livability. This design by architect Huson Jackson of New York for a flexible accordion-type partition was tested by Pratt Institute's Department of Architecture under Olindo Grossi. 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 $1\frac{3}{4}$ 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





Thousands visited this model home built right on the Arena Lawn at the 1954 St. Louis Home Show. One of its features was the Hunter Attic Fan for cool summer comfort.

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!

ONE-MAN, DRY WALL TAPING MACHINE. Low ONE-MAR, DKT WALL TAFING MACHINE. Low cost, easy to operate. Spreads coment and tape evenly in one quick operation. Cement spreads automatically to desired thickness. Learn to use in a few hours; tape many times faster. Light-weight alloy, weighs only 4% lbs. empty or 8 lbs. loaded with 250' of tape. Loads easily in seconds. Excellent balance, pencil-point precision. ORDER TODAY! TODAY Ne. DWTM-Each \$32.00

NEW IMPROVED CORNER TAPING TOOL. This re-NEW IMPROVED CORNER TAPING TOOL. This re-designed 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 oltogether! This new design eliminates all sharp, exposed working edges... and does away with any possibility of tape snagging. The sidewalls are wider-they're a full 4-in. now. The blade is set to an angle that invites just the right amount of pressure for clean, fast and easy inside corner taping. The steel in this tool is rust-resistant and almost self-cleaning ... tough and durable. The lightweight duminum mounting is set far back on the blade for perfect "hang." The hardwood handle spells out comfort. out comfort. \$4.95

CURVED BLADE TROWEL 12 x 4½-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

line of Dry Wall t the of Dry Wall t t. Just about every faster, easier and be

FREE NEW 1954 CATALOG! Get yours now! A "must" buying guide for anyare in the construction trades. Describes more than 1,000 items-30 brand new items. Hundreds of illustrations. 100 rologravure pages. Check box in coupon, tear out and mail right new te Goldblatt Tool Company, 1912-D Walnut St., Kom-sos City, Ma. FREE NEW 1954 CATALOG!





Place & Co. offers \$6,195 'finish-it-vourself' 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 864 square foot house will sell under FHA financing for \$495 down and \$40 per month on an \$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, plaus call for the house to be sold to builders throughout the middle west as a precut package.

Almost simultaneous 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



AMERICAN BUILDER



Large 22 feet by 11 feet 6 inch living room with dining area and foyer



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 \$40,000 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 $\frac{1}{2}$ -inch insulated sheathing. Exteriors are either $\frac{3}{4}$ 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) GATES 204 TIME THE GATES ROD TIME THE

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!





CHELSEA

...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 FANT& BLOWER CO., INC.

Place package

(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 3%-inch plywood. A two-ply roof completes the job.

Interior of the house is finished with Vjointed 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, oilfired, 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.



"A salute to those who made it possible"



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 costs and installation cost—Fenestra Hollow Metal Door-Frame-Mardware Units... a great advancement in building products.

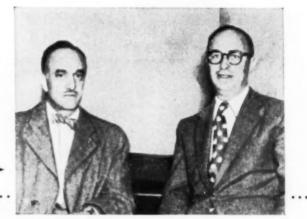


Here's how they sell houses

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: Messes. Anthony Campitelli and Nathan Brisker ->



"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 Disposall,[®] 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 prefcrence for General Electric appliances. Our custom-type General Electric Kitchen is one of our most potent sales features."



MRS. L. V. DRAVENTSADT 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

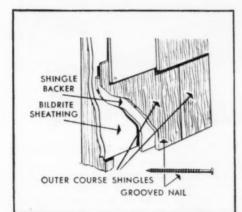


design and planning plus alertness to new ideas and materials help Mr. Doll pack maximum value into his homes. Result: he's sold out through October, 1954. See how Insulite can help you offer more house for less money. Write today for "5 Ways to Build Better for Less." It's packed with well-illustrated 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



New sidewall system resists 250 M.P.H. winds. Tests at the University of Minnesota proved Shingle-Backer System's tremendous holding power Test wall was exposed to winds far in excess of hurricane velocity. Not a shingle came loose! (Write Issulite for actual test data.)



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%. 4' 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.



INSULITE DIVISION, Minnesota and Ontario Paper Company, Minneapolis 2, Minnesota

Gold Bond INSULATION BOARD gets you remodeling

jobs like this because it's beautiful

REMODELING 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 bear 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.



NATIONAL GYPSUM COMPANY

AMERICAN BUILDER

and the PRICE is right

IDEA of the Month.....

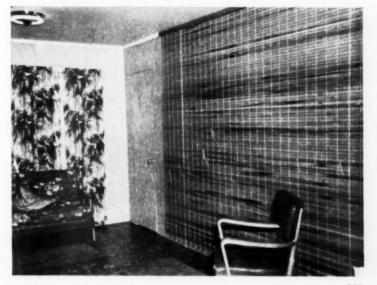


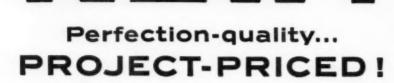
make the workshop part of the family room

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

.



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.



WATER HEATERS

Perfection heating contractors and dealers are pledged to give you service you can count on

FURNACES . HOME HEATERS . RANGES . AIR CONDITIONERS .

No. D-109 simplifying the details streamlines the house

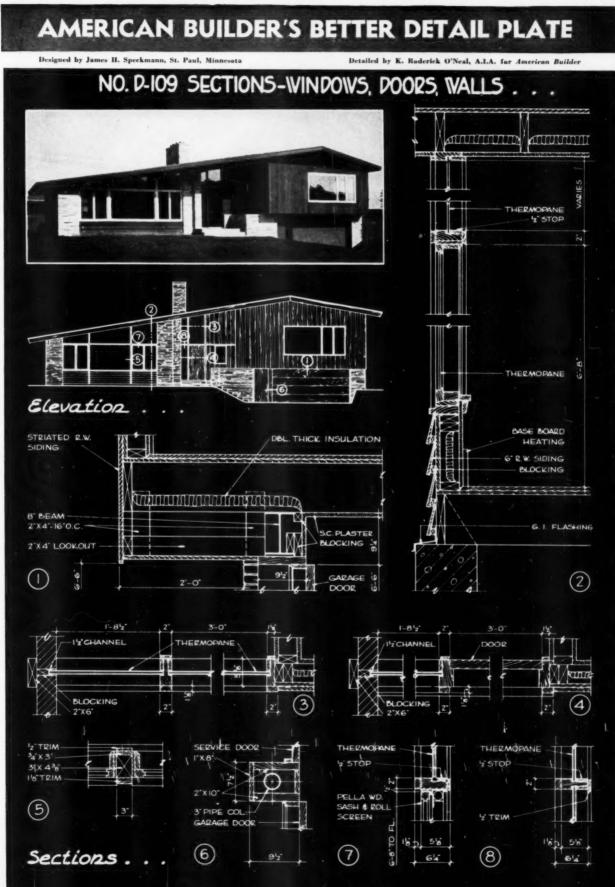
Expressed in simplest form, the door and window frames of this house not only accentuate front elevation features but also provide a base for the application of standard units. Linked together as a single unit by an irregular roof line of low pitch, outstanding features are the entrance, living room 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 3%-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-inchdiameter 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.





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

THE EMERSON ELECTRIC MFG. CO.

St. Louis 21, Mo.

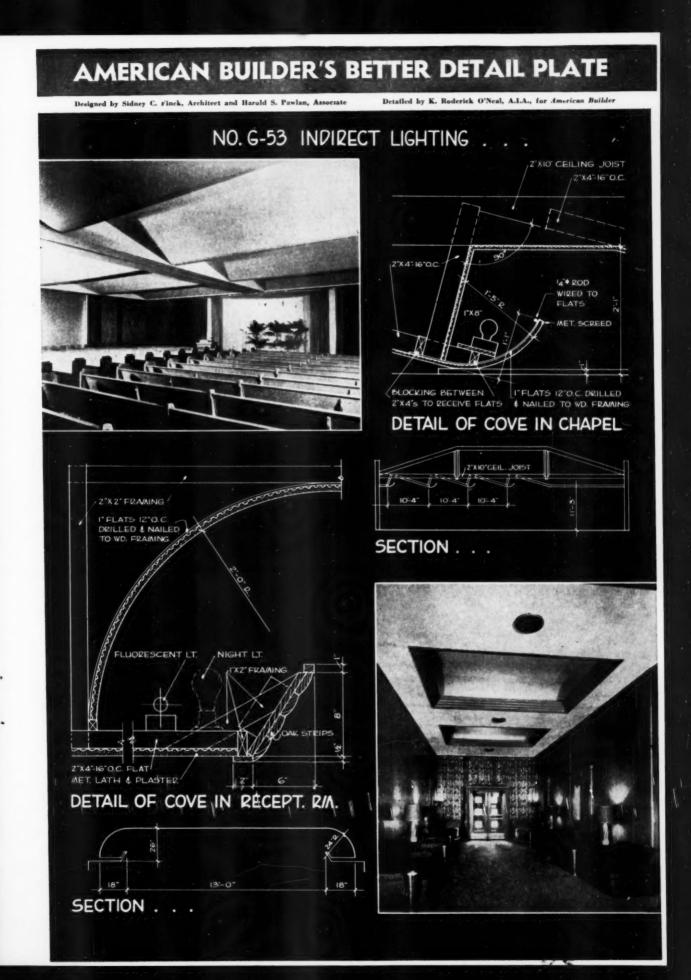


No. G-53 make the ceiling solve the lighting problem

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 arcas, 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.



MORE NATIONAL HOMES **BUILDER-DEALERS!**

Wanted

Today's Greatest Profit Opportunity ... Can You Quality?

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!

DESIGNS C 1953 BY JAMES &. PRICE AND

BETTER HOMES BUILD A BETTER AMERICA

The two "Ranger" models shown above and below indicate the flexibility and variety of National Homes designsan 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.

Prospect List Waiting!

Sincerely, H. B. Layne

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!





National Homes prefabricated National Homes prejabricated panels and structural parts, as they leave the assembly plant, carry the Good Housekeeping guaranty seal and the Parents' Magazine seal of commendation undation

MES CORPORATION Horseheads, N.Y.

AMERICAN BUILDER

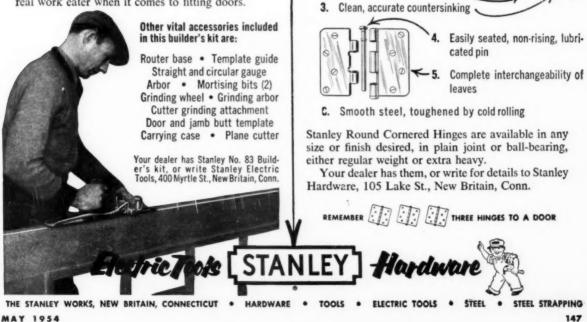
146



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 ³/₄ 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.



... and the Round **Cornered Hinge**



Here's Stanley's famous 241 hinge ...

With round corners for use with electric mortisers.

Check off the features that make this hinge the

Hole in the bottom for quick pin

Standard of the World.

1. Flat button tips -

removal -

2.

147



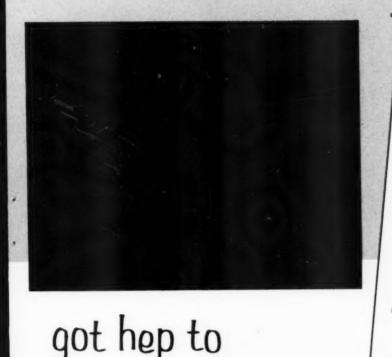
Look what we got since our Daddy NEW COLORED

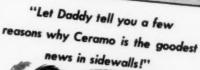
With exclusive new deep-tone colors and glazed ceramic surface that's washable!

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!











Ceramo is Fireproof! Won't burn, char or melt in the hottest blaze. (Wood siding has virtually no fire-resistance; even aluminum melts at only 1200°F.)

Ceramo is Washable! Should dirt, grime or ordinary stains soil Ceramo's lustrous surface, a cleaning with household detergent and water will renew its fresh sparkle.

Ceramo is Color-rich! Ceramo colors have character and depth. They're not wishy-washy and weak. And they're unfading, thanks to Ceramo's exclusive glazed-ceramic finish.

Ceramo Never Needs Paint! Ceramo actually pays for itself through savings in upkeep and maintenance. Make this fact known to your prospects and sales resistance melts away fast.

Ceramo Won't Warp, Shrink or Curi! Made of asbestos and Portland cement, takes broiling sun and soaking rains in stride. Actually gets harder and stronger as the years roll by.



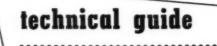
"Folks fall in love with Ceramo"

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 Department AB-5
"Cut out this coupon 'n YOU'LL BE IN CLOVER WITH NEW C		THE PHILIP CAREY MFG. COMPANY, LOCKLAND Cincinnati 15, Ohio Rush me all the facts about new Carey Colored Ceramo ! Have your Representative sall !
Carey	The Philip Carey Mfg. Company LOCKLAND, CINCINNATI 15, OHIO	NAME COMPANY ADDRESS
	In Canada: The Philip Carey Co., Ltd., Montreal 3, P.Q. RVING HOME, FARM AND INDUSTRY SINCE 1873	CITYZONESTATE



for builders and craftsmen

how to apply asphalt shingles to low-slope roofs

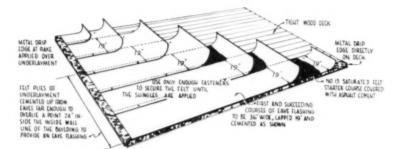


Fig. 1-Two layers of No. 15 asphalt-saturated felt are applied with a 19-inch lap

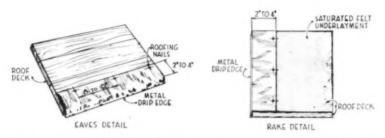


Fig. 2—Eaves metal drip edge is laid before underlayment is applied. The rake drip edge is applied on top of the underlayment

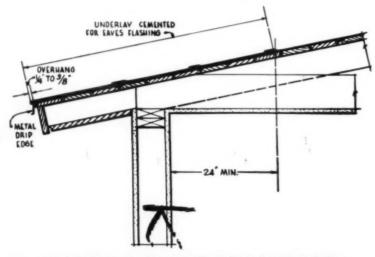


Fig. 3—Underlayment plies cemented together to form eaves flashing

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 18 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 3/1-inch staples or 3/1-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

hey 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.

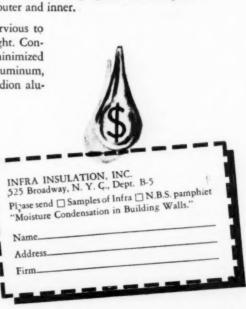
The U. S. NATIONAL BUREAU OF STANDARDS has prepared an interesting study of MOISTURE CONDENSATION in walls of dwellings. Obtain a copy at our expense by using coupon.

COST OF INFRA INSULATION INSTALLED in new construction between wood joists, material with labor,

Type 6-Si under 91/2¢ sq. ft.

Type 4-Si under 7½¢ sq. ft.

INFRA INSULATION, INC., 525 Bway., New York, N. Y.



MAY 1954

technical guide

for builders and craftsmen

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.

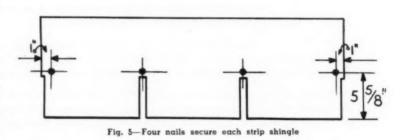
Tab Cement

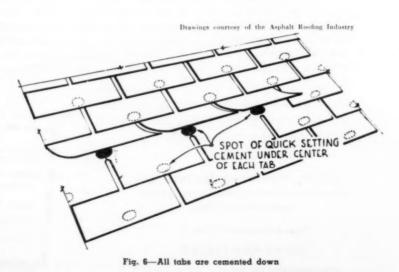
All shingle tabs should be secured in the following manner: Under the center of the exposed portion of each tab and on the surface of the underlying shingle, place a spot of quick setting asphalt cement of a type recommended by asphalt shin-gle manufacturers. The cement should not exceed one square inch 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.

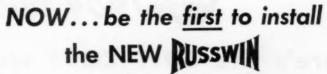
Color

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. PELT PUIS OF UNDERLAYMENT A NAILS PER STRIP 4 NAILS PER STRIP 4 NAILS PER STRIP 4 NAILS PER STRIP 5 UNDERLAYMENT UNDERLAYMENT SUINGLES ABUREACED SWEET-SUINGLES ABUREACED SWEET-SUINGLES ABUREACED SWEET-SUINGLES PER STRIP ALL TABS CEMENTED DOWN

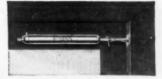
Fig. 4—Shingles are applied over double underlayment







SCREEN-STORM DOOR CLOSER



INSTALL IN MINUTES: Reversible for right or left hand doors

... another Russwin "all-Star" product designed to help you swing more sales!

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• Compact ... 155/8" long; 11/4" in diameter.

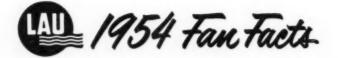
· Sturdy, impact-extruded aluminum tubing

• Dependable, all-position hold-open device

· Concealed buffer spring

• Weather-proof finish

• Self-lubricating precision parts



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(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

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a simplified analysis of home cooling units

PART II

By S. Konzo Professor of Mechanical Engineering

University of Illinois

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.

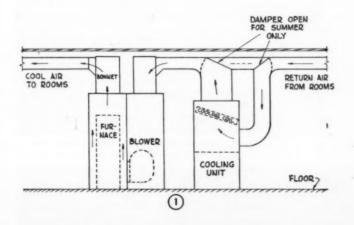
Some idea of the tremendous amount of ice that is required for an adequate cooling job can be gained from the fact a two-ton capacity cooling unit may be required for a six-room house of small size. Imagine a pile of forty 100-pound cakes of ice melting away in 24 hours, and some idea of the capacity of these modern units is obtained.

Five Major Components of a Unit

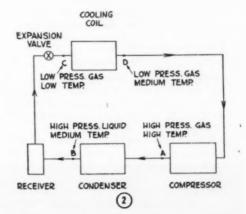
The most common form of mechanical air-cooling unit is similar in working principle to that of the electric kitchen refrigerator. The principle of operation is simple, and can be described in terms of five major components shown in the line diagram in *Figure 2*.

The main components consist of:

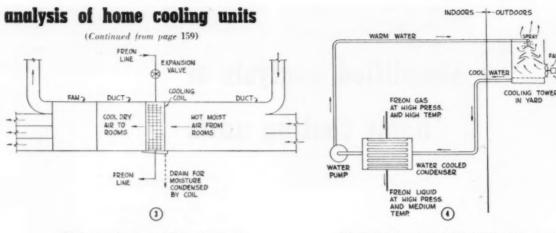
a compressor, which is motor operated and compresses a special gas called freon. The compressor works like a tire pump, since a high-pressure gas at high temperature is delivered at the discharge point A. (Continued on page 160)



One of the many possible arrangements for cooling units







Schematic diagram of cooling arrangement

Schematic diagram of condenser and cooling tower

- (2) a condensor, 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 factorytested 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)



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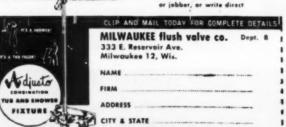


HOMES SELL FASTER ... Yes, and rent easier too, because ADJUSTO is both an Adjustable Shower and Tub Filling Spout. Casts little more than separate tub filler and offers more advantages than a regular shower because it adjusts to any height. A beautiful fixture, it compliments any bathroom

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CUTS COSTS . . . Adjusto may be put on offer tiling and decorating . . . on the autside of the wall. Takes half the time and labor of other type fistures. Later installation assures you Adjusto is safe fram vandalism, damage or theft.





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."



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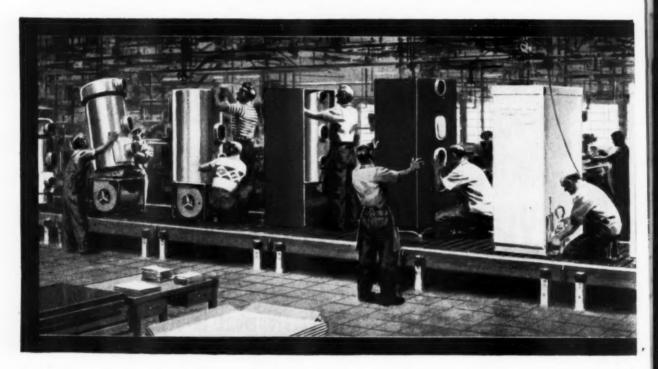
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So, whether you are calling for heating bids or submitting them yourself, be sure to get in touch with your Delco-Heat distributor. Call him today for complete information on the Delco line. Or write: Dept. ABH, Delco Appliance Division, General Motors Corp., Rochester 1, N.Y. In Canada, Delco-Heat, Toronto 13, Ont.



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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.

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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.

GOT a problem you haven't solved? Can't solve? Haven't the time to solve? Have you solved a problem with an answer you aren't sure of? Are you doing some particular job—big or little—in a way that you think might be improved?

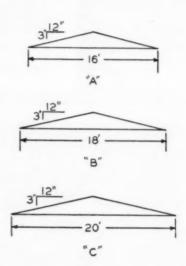
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Studs-2x4 @ 16 inches o.c.



 (B) 18-foot span: Slope—3 on 12, min.
 Rafters—2x4 inches @ 20 inches o.c.

- Floor joists—18-foot span— 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

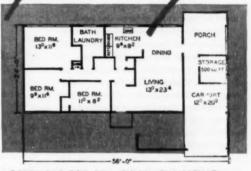
- inches o.c.
- Floor joists—20-inch span— 2x12 inches @ 16 inches o.c. 10-inch span—2x6 inches @ 16 inches o.c.
- Studs—2x4 inches @ 16 inches o.c.
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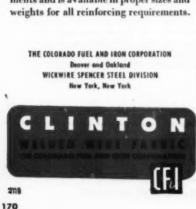
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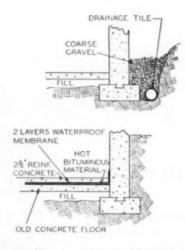
ask the Mports

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 condensa-



tion. 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 $\frac{1}{2}$ -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-1½ 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 21/2 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.

Portland Cement Association

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



SERVEL Gas air-conditioning and heating unit being used in the Arkansas development and in countless other homes. 2-ton unit shown is $27\frac{1}{4}$ wide, 46 long, $74\frac{1}{2}$ " high—occupies only 8.7 square feet of floor space.

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?

gives greatest year-'round comfort

GAS-the modern fuel for <u>automatic</u> cooking...refrigeration...water-heating...house-heating...air-conditioning...clothes-drying...incineration. AMERICAN GAS ASSOCIATION

5 Contractors tell why they make higher profits with



NEW YORK. "My 12 men demand American machines," says Alfred Du-maresq, of Lindenhurst, Long Island, in business 19 years. "With American Machines the sandpaper seems to last longer. I just purchased my 9th Ameri-can Machine as I want only American Machines and supplies. Super 8 is tops!"

American uper 8, "drum, uper high production



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."

> TINNESSEE. "I prefer American to any other equip-ment," 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.



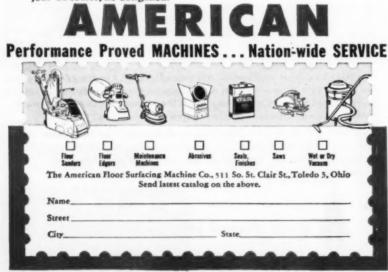


FLORIDA. "American Machines are toughest and fastest sanding machines I have ever run," says Ralph fastest sanding machines I have ever run," says Ralph Coleman of Jacksonville, who has used American machines 18 years. "Any floor contractor can get more dollar value out of the operation of American quipment than any other machines."

PINNSYLVANIA. "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.



ask the MD

(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 hotwater 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?

F. S. H., Northboro, Mass.

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.

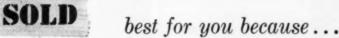
While aluminum paint will reduce the heat loss from a bare pipe by about 10 per cent, it should be pointed out that conventional pipe covering is far more efficient in reducing the heat loss from hot-water heating pipes. For example, magnesia insulation 1-inch in thickness will effect an 80 per cent 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...















THE TRULY MODERN

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.

best for your buyers because ...

All problems of water supply, water expense and water disposal are eliminated by the *waterless* operation of Chrysler Airtemp *Air-Cooled* Air Conditioning.

Chrysler Airtemp Air-Cooled Air Conditioning costs less to operate in most locations.

Chrysler Airtemp Air-Cooled Air Conditioning costs home owners less to maintain wherever it is installed.

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.

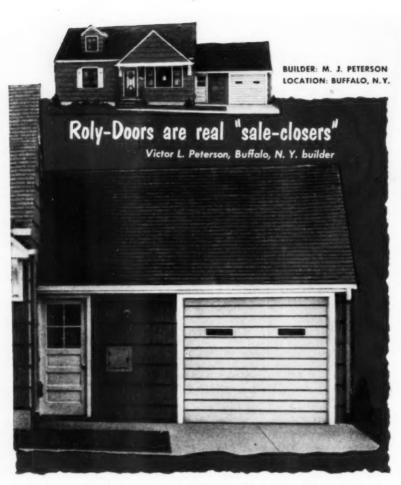
HRYSLER AIRTEMP HEATING • AIR CONDITIONING FOR HOMES, BUSINESS, INDUSTRY

Airtemp Division, Chrysler Corporation, Dayton 1, Ohio

Addre City_																
	Ø 55							Zone		Sta					_	
Name																
Pleas	se sen	d con	nplete	e deta	ils on (Chry	sler	Airtem	p Ai	ir Co	nditi	ioni	ng fe	or hor	mes.	
P. O.	. Box	1037	Day	ton 1,	Ohio				1	Good	House	keep	ing)			
A 11 1 1				17 9 3167	Corp	orat	ion			S Gu	arante	ed by	12			

173

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.



City.				Zor	state	
	In Canada	. Roly-Door	Distributors,	Ltd., 1330	Bloor, W., Toron	nto 4
Also	Manufacturers o	F. MOR-SUN	WARM AIR	FURNACES	and CARRY. ALL	TRUCK B

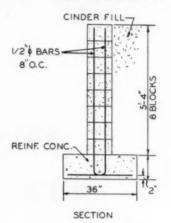
Also Manufacturers of MOR-SUN WARM AIR FURNACES and CARRY-ALL TRUCK BODIES.

ask the MOOT

building a retaining wall

I am planning to build a retaining wall of 12-inch slag blocks. I plan to put ashes in the back as fill. How can I build it so that it will be strong enough?

L. W. M., Emmaus, Pa.



Use ½-inch reinforcing bars placed not less than eight inches on center and carried through the cores of the block. Fill all of the cores with concrete to make a complete bond with the reinforcing bars. Notice in the diagram that the bars are continuous through the footing.

K. Roderick O'Neal & Associates.

Architects and Engineers

book tells all

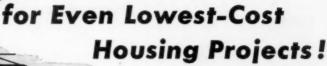
Please send me information on reinforced concrete work as to correct sizes of steel and concrete in ratio to length of beams, slabs, initial strength of slabs; also mathematical data necessary to figure this type of structure.

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!

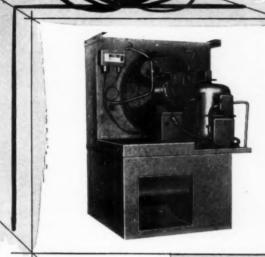




MARVAIR

air-cooled

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... 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 salesmaking sensation of the year.

Amazingly easy to install, the Air-Cooled MARVAIR uses no ducts, no plumbing, no watermain 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.
- No ducts-may be used with any type of heating.
- Takes up no floor space—installed in attic, or in false chimney on low-pitch or flat roof homes.
- Remarkably quiet and economical in operation.
- Refrigeration circuit covered by 5-year warranty.
- Designed to conform to all FIIA-VA requirements.



Ask Your Distributor or Write Today! MARVAIR DIVISION OF MUNCIE GEAR WORKS, INC. • MUNCIE, INDIANA.

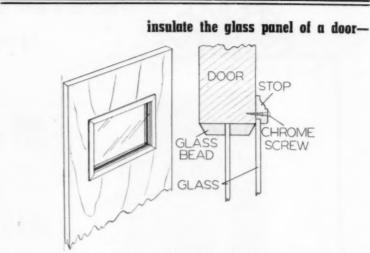
Complete Marvair water-cooled packaged units for use as r.om coolers and furnace companion units are also available. Details and engineering service on request.





how would you do it?

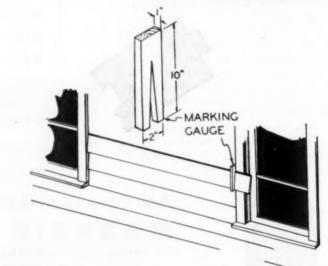
ideas for the man on the job



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 15%-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.

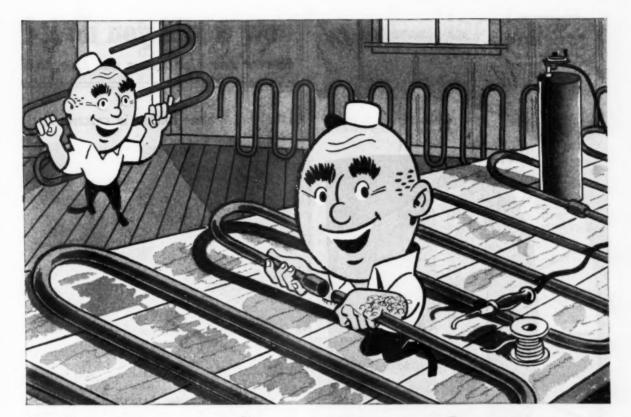
-P. R. Kersten, Greensburg, Pa.

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 10x2x1 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!



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 3/8" 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.

Radiant Heating Division Bundy Tubing Company • Detroit 14, Michigan

Bundyw

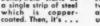
DOUBLE-WALLED FROM A SINGLE STRIP

15

EETTER

basic







BUNDYWELD

Bo fuses with metal. Result

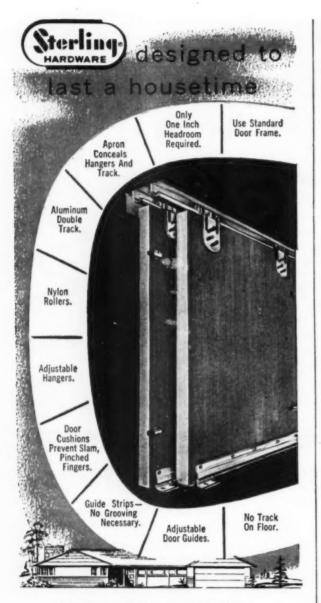




NOTE the exclusive Bundydeveloped beveled edges, which afford a smoother joint, absence of bead, and less chance for any leakage.

MAY 1954

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With Sterling Hardware you offer satisfaction, beauty, efficiency and "quality-bydesign." The many exclusive features of Sterling Sliding Door Hardware assure satisfaction. Satisfactory operation is guaranteed because Sterling Hardware is designed better—is easier to install—quieter when installed—will operate perfectly for years and years. Write Today For Catalog.

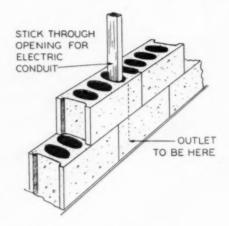
STERLING HARDWARE MFG. CO. BAS WIST HILSON STREET - CHIGAGO IN ILLINGIS Storling means (Indity Storling means (Indity MATIONALLY ADVERTISED IN Leading Magazines SEE OUR CATALOG IN SWEET'S. Architectural File - Light Construction File VIST OUR DISPLAYS.

Chicagoland Home Building Center

how would you do it?

ideas for the man on the job

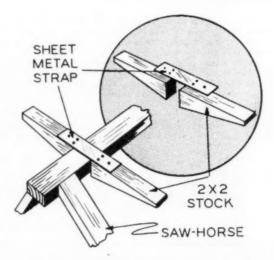
place conduit in concrete block



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.

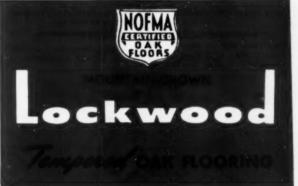
Sales Success Story! Here's Why Leading Builders Use LOCKWOOD Tempered OAK FLOORING



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 camparable 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 if. 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.

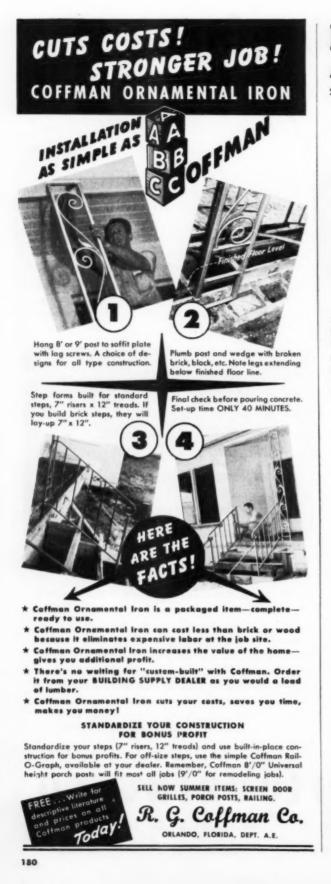
CLOUD OAK FLOORING CO.

QUALITY OAK FLOORING SINCE 1926

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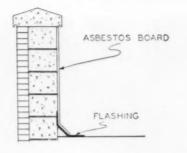
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how would you do it?

ideas for the man on the job

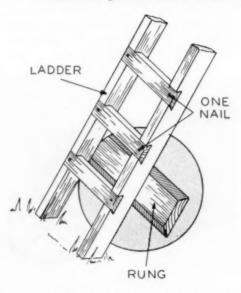
prevent efflorescence



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.

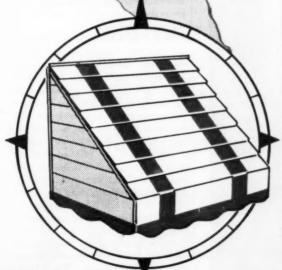
-H. E. Fey, New Braunfels, Texas

LARGEST PERMANENT AWNING MANUFACTURER IN 1954....

BECAUSE LOCK VENT OFFERS DISTRIBUTORS AND DEALERS

- Full line of aluminum and/or plastic glass; modern horizontal styling; exclusive ventilation feature.
- All parts furnished by Lock Vent.
- Thorough engineering and sales assistance!
- Brand new advertising and sales promotion materials for '54!

LOCK VENT MANUFACTURING DISTRIBUTORS NOW LOCATED HERE!



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RHODE ISLAND Newport Providence	Chicago Peoria Rockford Springfield	MAINE Bangor	NEW HAMPSHIRE Dover	WYOMING Casper
CONNECTICUT Hartford New Haven	INDIANA Fort Wayne	Lewiston MASSACHUSETTS Resten	OKLAHOMA Tulsa Oklahema City	WISCONSIN Milwaukee Green Bay
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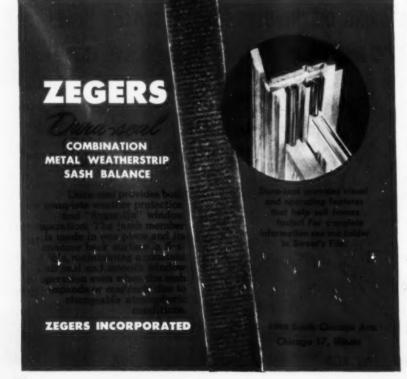
Vealers- WRITE DIRECT TO LOCK VENT FOR THE NAME OF THE DISTRIBUTOR NEAREST YOU!

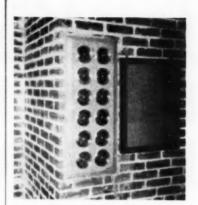
NOW.Q ... Dura-seal

SI-VEL (PATENT APPLIED FOR) SPRINGS



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 onepiece 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.





Built-in model, showing front and rear ears used to allow for plaster ground

building plan depository useful merchandising device

A merchandising device for architects and builders is the "Plan-Keeper." an aluminum depository tube with cover. Installed in the building wall, it serves to preserve the owner's plans and similar important building data. The unit is available either as a built-in type for new structures, or a corner model for installation in existing buildings.

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% inches. The cap. available with a cylinder lock, covers a pull rod for extracting the tube's contents. The cap. with its nameplate, has a diameter of 4516 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 3/4- or 5/8-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 Prodducts Co., St. Petersburg. Florida.



ENT ALIGNA OCK **GEST VALUE** in Low C

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 buyers recognize immediately as reliable!

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 134 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 bedroom 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.



New York . NEW HAVEN, CONN. . Chicago

new products

JALOUSIE WINDOWS

LuVent double-strength jalousie windows are constructed with an insectproof seal between the window frame and screens, a rigid frame, lifetime plastic strip between glass and frame which seals out weather, counter-

A R55403



balanced louvers, overlapping glassholding clips and special glass tension springs which prevent rattling. Weather Products, Inc., Dept. AB, 1047 E. 27th St., Hialeah, Fla.

PLYWOOD SIDING

"Texture One-Eleven" is the name of a new fir plywood product for siding.

AB55417



has a 16-inch net width, rabbeted both sides, with grooves 2 incles 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.





Artist's rendering shows the new prefabricated, air conditioned "Freedom" model designed by architect George Nelson

PREFABRICATED HOUSE STRESSES OPEN PLANNING

AB55409

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

DIAPHRAGM PUMP

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, ash. BOR MORE INFORMATION USE COUPON ON PAGE 214

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.

ASPHALT TILE

AB55414

AB55401

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 marbleized effects, adapted to the current trend to "outdoor look," ma-



terials 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 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 $\frac{1}{2}$, $\frac{1}{2$

MAKE YOUR PICK-UP TRUCK A SERVICE TRUCK, TOO!

for 1/2 and 3/4 ton pick-up trucks



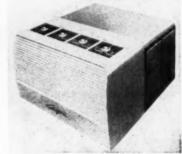
These easy-to-install tool and material compartments are finished in baked-on, medium-dark green enamel. Parts bins are built-in. Doors have slam-action catches, with locks keyed alike. Available with overhead rack.

	end me c MASTER		
Name			
Company.		 	
Address _		 	

new products

AIR CONDITIONERS AB55404

The "Capri" window-type room air conditioners are available in $\frac{1}{2}$ -, $\frac{3}{4}$ - and 1-ton capacities. Custom styling in marresistant green-gray finish is said to blend with most room decors. Units are designed for year 'round living. They are equipped with draft-free louvers 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 nonfading 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.

> FOR MORE INFORMATION USE COUPON, PAGE 214

OWENS-ILLINOIS GLASS BLOCK



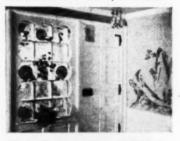


Owens-filmois Glass Block are nanded in the same way as cement blocks – same mortar, same laying technique. They go in at the same time, or they can be used for remodeling jobs.



EASY TO STORE

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.



EASY TO SELL Let Owens-Illinois Glass Block help you 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 (D 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 gasengine 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

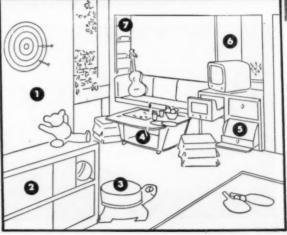
HOMELITE CORPORATION

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 $\frac{1}{4}$ " 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.

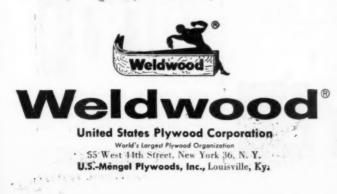
Knotty pine *lumber* makes a satisfactory job; in fact, we manufacture this material in large quantities. However, when a really fine knotty pine installation is required, Weldwood genuine Idaho knotty pine paneling is the answer. The large sized panels minimize joints and are decoratively attractive by reason of their small, wellspaced 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.





IN YOUR ADVERTISING—the Weldwood file of the building guarantee has tremendous sales appear. Use it in your newspaper advertising and promotional diterature. 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.

Unite	d States Plywood Corporation	AB 5-54
55 W	est 44th Street, New York 36, N.	Υ.
FREE	Please have your salesman cont details about knotty pine pane Weldwood paneling.	act me with full eling and other
	Send instructions for making in room,	features shown
NAME		TATA A
ADDR	ESS	3.K 1
CITY		STATE



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, weatherresistant 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 !

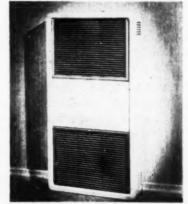
Write today for complete information and prices Sonoco Products Company



new products

GAS WALL HEATER AB55424

"Saf-Aire" units burn any type of gas heating fuel, including manufactured, mixed, natural or LP 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 con-



serving 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

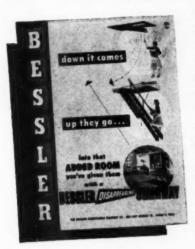
"Keynote" line of doorbell push-buttons have piano-key action. Units are streamlined to fit-narrow door trim, and are available in four color combinations to blend with exterior color schemes. All exposed parts are made of weather-resistant plastic. A special manufacturer's



finish gives brass and chrome colored parts, high lustre and prevents them from tarnishing or staining door trims. 4 Edwards Company, Inc., Dept. AB, Norwalk, Conn.

> FOR MORE. INFORMATION USE COUPON, PAGE 214

HOW TO BUILD MORE SALEABLE SPACE INTO HOMES



Write today for FREE BESSLER CATALOG showing how easily and economically you can use BESSLER DISAPPEARING STAIRWAYS (7 Models) to assure more cubic feet per building dollar!

IMMEDIATE DELIVERY

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YOU NAME IT... ROBERTS-GORDON HAS

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- Nationally-Known Products AGA Approved
- Complete line of gas-fired Home Heating Equipment
- Quality Designed, Engineered, Produced
- Simple Installation plus Minimum Service



the famous patented Roberts-Gordon Spreader Flame Gas Burner . . . "The standard of the industry" . . . the patented way of burning gas efficiently and economically.



.....

4 Big Savings



Mr. Roth, contractor, and Mr. R. G. Morgan, of the Upson Co., look over plans. That's real snow you see, but it didn't stop application of Upson All Weather Sheathing.

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.

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.

Super strong. Made from 6 plies of true-individual wood fibers, laminated and scientifically welded together. Eliminates costly corner bracing. In fact, All Weather Sheathing meets and *exceeds* requirements of FHA Technical Circular No. 12. Also accepted by the Veterans Administration.

Slashes application costs two ways.

J First, king sizes cover large areas with a single panel. Now two men can sheath a house as quickly as four men.

Second, exclusive **CuraSeal** waterproofing process permits continuous work, even in rain or snow. Absolutely safe to store outdoors, cuts storage costs.

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.

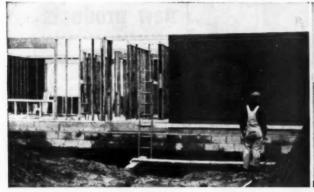
King sizes: 8 x 12, 14, 16, 18, and 20.

More. Upson cuts soffits to size. Think what this means. No cutting on the job. No waste. Save time. Cut costs.

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!

Weat



Upson All Weather Sheathing is super strong, adds tremen-dous 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 CuraSeal 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.



Apply building paper then siding. No waiting for good weather. Try amazing Upson All Weather Sheathing on your next job.

THE UPSON COMPANY

Please rush me FREE Sheathing,	Folder and Applicat	tion Instruction Sh	eet on Ups	on All	Weath
NAME		4			1.
COMPANY		-		-	-
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PROVEN QUALITY YOU CAN TRUST



The Outstanding Steel Tape for On-the-Job Durability

The Lufkin "Leader" Steel Tape is Chrome Cled 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 chromewhite background. Line won't chip, peel or crack. Metal case is rust resistant coated, covered with durable marcon 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 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' \$22356 Cost 22356

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

Quantity	liem	Cest
512	Short Connecting Bolts\$	53.76
32	Long Connecting Bolts	3.52
544		35.36
1200	Steel Strips	48.00
992	Stop Plates	39.68
	Inside Corner Brackets	2.80
64	Waler Sets	13.44
	7' Outside Corners	32.00
	Total 13	23.56

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.

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CALBAR PAINT & VARNISH CO. Banfactarers of Tochaicel Products 2612-26 N. Martha Street Philadelphia 25, Penna.

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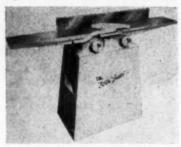
new products

6-INCH JOINTER

.....

AB55412

Featuring a large table, 60 inches overall, this new 6-inch jointer has a 37x4inch fence which rests on a sturdy tapered stand. Hand wheels with indi-



vidual turning knobs controlling the setting of each table are located at the front of the jointer.

A balanced three-knife head, 2%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 %-inch, with a rabbeting arm support 8% 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





MAY 1954

New BROWNSKIN Fiberglas-Reinforced

Fiberglasreinforced (actual size)

> Creped for flexibility Edges folded and sealed

Waterproofed! Tough 2-ply kraft impregnated with a special compour

Solid brass grommets at 24" intervals

at $\frac{1}{2}$ 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 BROWN-SKIN Tarps . . and at ball 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 BROWN-SKIN Tarp dealer.

ANGIER CORPORATION Framingham 24, Mass.



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TARPS

As foul-weather protection for equipment



For protecting materials at low cost.



As waterproof shrouds over power tools.

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now equipped with Hydraulic Safety Checks

- 1. Prevent slamming on opening and closing.
- 2. Operate stairway silently, safely, without effort.
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5 YEAR written guarantee furnished with each stairway

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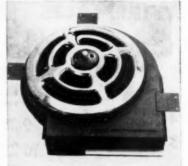
400-AB North First Street . . . Nashville 7, Tennessee

Add safety checks to present PRECISION Stairways at small cost.

CORP.

new products

VENTILATING FAN AB55416 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 3¹/₄ 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 AB55415 Extra ceiling illumination and maximum floor lighting are said to be pro-

mum floor lighting are said to be provided by the "Strato-Ray" lens, designed for use with the manufacturer's recessed fixtures in commercial and institution installations. Prisms at the outer edges of the lens "bend" the light rays to illuminate the ceiling, while the ovalshaped 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. Towne and Railpoad Ave., Pomona, Calif.

> FOR MORE INFORMATION USE COUPON, PAGE 214 AMERICAN BUILDER

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1

HERE'S HOW YOU SAVE WITH FORD TRIPLE ECONOMY

You get <u>more</u> 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 timesaving 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.



Big, one-piece curved windshield offers over 938 sq. in. of glass area for eyesaving visibility. Extra-deep side windows!



One of the biggest pickup boxes in the $\frac{1}{2}$ -ton field . . . 45 cu. ft. capacity. Allbolted construction for extra strength.



New Fordomatic Drive is fully automatic. No clutch. No shift. Repays its extra cost in time saved on stop-go work.



115-h.p. Cost Clipper Six or the all-new Overhead-Valve, 130-h.p. Power King V-8.



New upholstery of free-breathing woven plastic is cooler, easier to clean, feels better, looks better, lasts longer.



Box floor is just over 2 feet from ground for easier loading. Locked horizontal, tail gate serves as a rigid, level platform.



Gas-Saving Power
 Driver-Saving Ease
 Money-Saving Capacities



New Ford F-100 Pickup has big, 45 cu. ft. capacity. Five transmission choice, including Fordomatic Drive...Power Braking, too...at worthwhile extra cost.



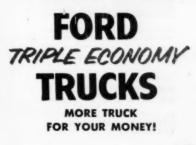
King-size cab door opening—nearly a yard wide—lets the biggest drivers slip in and out easily. Leg and foot room to spare!



Widest seat in its class. Non-sag springs and exclusive shock snubbers reduce road shocks 75%, cut fatigue. It's comfort plus.



Power Brakes, now available on halftonners, make stopping up to 25% easier. Pressure to stop truck won't break bulb.

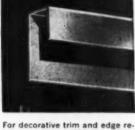


For economical application just nail easy-tohandle, 16"-wide, ceiling-height panels right to the studs. You don't have to treat the joints, because they're a decorative feature with PANEL SHEETROCK.

RED TO Insulating BLANK

pr

back of panels and press to base layer of regular SHEETROCK Wallboard. No nailheads to conceal. When remodeling, apply panels with adhesive-right over old walls.

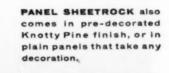


inforcement use USG Metal Trim inforcement use USG Metal Trim around doors and windows, and as moulding at ceiling and wall line. Available unpainted, or painted to blend with pre-deco-rated PANEL SHEETROCK. APPROXIMATE COST:

\$9.00 for a 10' x 12' room. Ask your U.S.G. dealer for further

information or write Dept. AB2, Chicago 6, III.

It's quick and easy



APPROXIMATE COST: \$44.00 for Knotty Pine PANEL SHEETROCK or \$25.00 for plain PANEL SHEETROCK Wallboard to cover walls of 10'x12'room.

For deluxe application apply adhesive to





board 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—<u>all in one operation!</u>

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

*T.M. Reg. U.S. Pat. OfL



SAVES TIME · SAVES MATERIALS · SAVES MONEY

Complete

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Ratings

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Vulcan COSTS LESS!

Cover snaps on brackets. Simple Installation. Rod hangers... adjustable for any type construction.

*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.

ATTRACTIVENESS

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





(for bonding plaster) and Weld-Crete (for bonding plaster) and Weld-Crete (for bonding concrete) are similar in all respects except as to color and viscosity. Applied by brush, spray gun, roller. Equal bonding permanence all climates, all types of surfaces, all sorts of conditions. If your dealer doesn't have them, write us direct for complete information including applications and job-proof from leading architects, contractors, builders that both products do exactly as claimed. . make PERMA-NENT BONDS that NEVER LET GO!

LARSEN PRODUCTS CORP. Dept. 6, 4934 Elm St., Bethesda, Maryland



new products

.....

ELECTRIC SAW AB55421

A portable electric seven-in-one sabertype 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



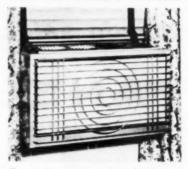
be used as a band, jig, keyhole, scroll, rip, cross-cut or coping saw. Its allpurpose applications are useful to carpenters, display builders, plumbers, cabinet makers, etc.

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 34-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 AB55426

"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 9½ inches into the room. It utilizes a ¾-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.

FOR MORE INFORMATION USE COUPON, PAGE 214 AMERICAN BUILDER

200



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.

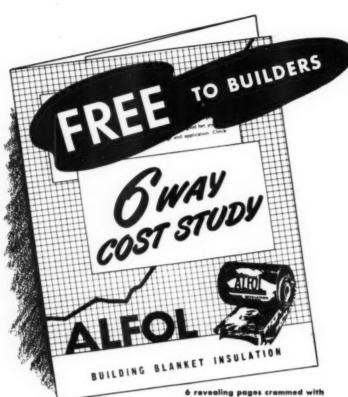
Folks are delighted when they see two bathrooms. They'll be even more pleased if you've specified Briggs Beautyware. These smart, modern plumbing fixtures can glamorize the entire house. Eye-appeal that lasts and lasts is a part of *every* durable Briggs fixture. Briggs Beautyware is acid-resistant, 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!

BRIGGS MANUFACTURING COMPANY

DETROIT 26, MICHIGAN

BRIGGS



Cost-Study facts, figures on insulation

Whether you put in your own insula-

For it gives you the "inside story" on

tion or buy it applied from a contractor,

insulation costs, especially those con-

nected with handling, storage and appli-

cation. 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

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-

Offered to builders for the first time,

this 6-page folder is free. To get your

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you'll want this vital pamphlet.

buy your material applied.

Designed for Insulation Contractors, this pamphlet provides inside facts on how you can Slash Insulation Costs!

applicator.

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 reflectivetype materials):

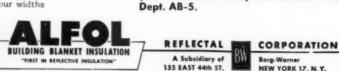
Unloading operations (2) Storage

Loading and delivery On-job application

- 12 on-the-job photos
- How to Install ALFOL

• Heat-loss, Condensa tion: how to block both at once

• ALFOL's five types, four widths



new products AB55407 WINDOW UNIT

The new Silentite "Convertible" window unit consists of a single basic unit which can be used as a right- or leftswing 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 factoryassembled-basic frame set-up, operating hardware, sash, screen and insu-lating 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

202





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.

Look at its features. All-steel construction for life-of-the-house durability and freedom from warping, swelling, shrinking, rotting. Complete stainless steel weatherstripping. Stainless steel tape balances. 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[®] screencloth 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.

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Export Dept: 932 Chrysler Building, New York 17, N.Y.

TRUSCON®

[®] a name you can build on



makes any cutting job quick ... easy ... economical

Zips through wood, sheet metal, lath, plaster, pipe, nails, etc. in seconds! Attaches to any heavy duty 1/4" or 5/16" drill.

Use this sensational time and worksaving tool. You'll say it is the best portable, all-purpose hacksaw on the market.

See Tri-Saw at your jobber or write us for descriptive literature.

TRI-SAW CORPORATION 2207 HANLEY INDUSTRIAL COURT ST. LOUIS 17, MISSOURI

men over

More than six times as many men of your age will die of lung cancer this year as died in 1933. Our research scientists still don't know why.

They do know, however, that over half of those who will develop lung cancer can be saved ... if they get proper treatment while the disease is still in the silent, symptomless stage. That's why we urge you to have a chest X-ray every six months no matter how well you may feel.

For more information call us or write to "Cancer", care of your local Post Office.

American Cancer Society

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 en-



closure, 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.

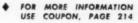
GAS-POWERED TROWEL AB55408

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.

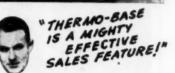
The unit is powered by a one cylinder, four cycle, air cooled gasoline engine. Its direct in-line drive allows



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.







Says Mr. E. M. Peck, Engineer GENERAL CONSTRUCTION CO., INC. Michigan City, Indiana

"We recently opened our Better Homes & Gardens Readers Choice Home to the public and were pleased to find that many thousands of prospective home buyers agreed with our choice of the Thermo-Base System. We feel that in today's competitive market there is no economical substitute for proven quality . . . that's why Thermo-Base continues to be one of our best salesmen."

THERMO-BASE NOW COSTS LESSI . . for all these proven features:



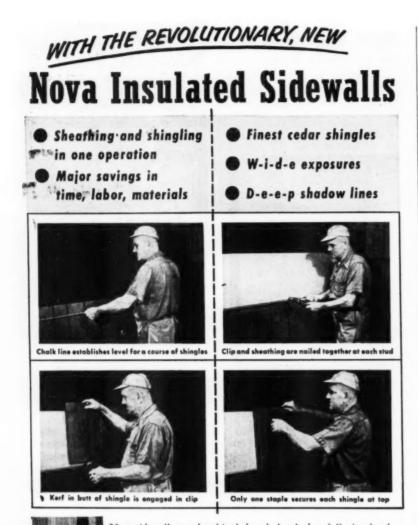
 Delivers both radiant and convected heat • Used on outer walls, where heat is most needed • Occupies little space and harmonizes with room furnishings • Even, uniform flow of warmth, eliminating the discomfort of "cold 70's" • Fast heat quick response, no lag, no run-over temperature ● Humidified and filtered air, in constant circulation ● Factory guaran teed layouts.

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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.



A wholly-owned subsidiary of Homasote Company-manufacturers of the oldest and strongest insulating-building board; wood-textured and striated panels.

new products

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 $\frac{1}{2}$ -inch. It has a strong spring for power-



ful 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

Now <u>ANY</u> 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.

with these <u>Continental</u> contemporary doors



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.



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).

ontinental

products are manufactured by:

The Wabash Screen Door Co.—Minneapolis—Chicage—Memphis Owosso Manufacturing Company — Owosso, Michigan Philadelphia Screen Manufacturing Company—Philadelphia

and sold through CONTINENTAL SCREEN COMPANY 1323 BOOK BUILDING - DETROIT 26, MICHIGAN

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.

Auto-Lok has

Fast and easy to install. Auto-Lok comes to the job on schedule, completely assembled ... no separate

THE WINDOW

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 graceful tilt of the vents in any position, concealed hardware and attractive op-



OVER-SILL OPERATOR Narrow horizontal lines and Friction-free feathertouch control. Wearproof oil impregnated (bronze-steel) gear, rolled thread worm . . . erator design make Auto-Lok four-tooth engagement for the most beautiful window. smooth, effortless operation. four-tooth engagement for

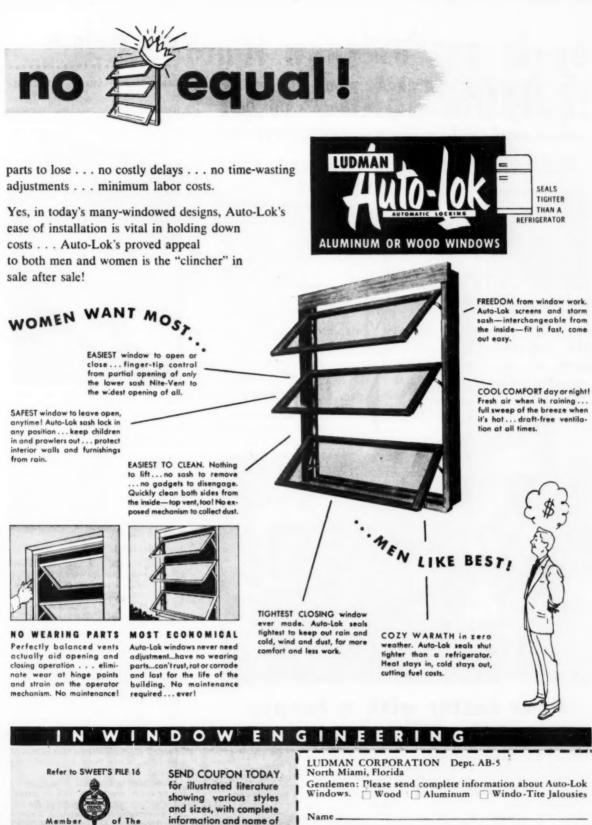


EXCLUSIVE "NITE-VENT" An Auto-Lok original. The bottom vent may be left slightly open for fresh air, yet it and upper closed vents remain securely locked for maximum night protection.





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information and name of nearest Auto-Lok Dealer.

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209

State



stock and custom work—LOW PRICES!

Demand for Artcraft Ornamental Iron Work has mushroomed because of painstaking craftsmanship, charming consumer appeal and low cost. No assembly

write for FREE CATALOG New 40-page catalog showing stock and custom work prices and installations. Many ideas for your own plans.

No. 120

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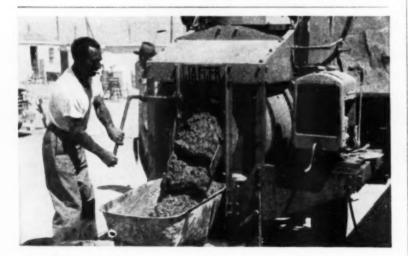
Average weight of 90° porth column is 125 lbs. Always specify single or 90° corner columns when ordering.

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

ORNAMENTAL IRON CO. 720 E. HUDSON ST., COLUMBUS 11, OHIO

25



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, automotived 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.

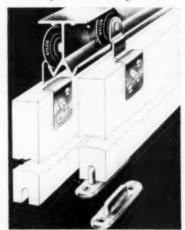
Available in 3½, 6, 11, and 165 sizes. Ask for Catalog M-10. **THE JAEGER MACHINE COMPANY** 521 Dublin Avenue Columbus 16, Ohio PUMPS • COMPRESSORS • HOISTS • TRUCK MIXERS • PAVING MACHINES

new products

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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 34-inch or 13k-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-, 6and 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 10% 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.

> FOR MORE INFORMATION USE COUPON, PAGE 214

You'll want to see these 2 NEW CHASE MOVIES!

Both in full color and sound

RADIANT HEATING"

"The Story of



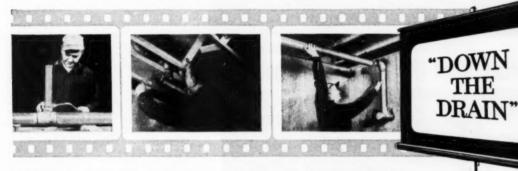




(Running time: about 15 minutes. 16 mm) This movie tells the fascinating story of how nature's way of heating has been put to work for man.

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. (Running time: about 11 minutes. 16 mm)



WATERBURY 20, CONNECTICUT . SUBSIDIARY OF KENNECOTT COPPER CORPORATION

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.

The Nation's Headquarters for Brass	&	Brass	for Brass	adquarters	Hea	tion's	Na	The
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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. Twowheel 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 Co., Kohler, Wisconsin. Established 1873 **KOHLER** OF **KOHLE** 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 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-theground jobs. Note handy "Trouble-Saver" Mortar Board Stand on platform.

The Steel Scaffolding Company, Inc. Telephene EVergreen 3-5510 Dept. AB 856 Humboldt Street. Breaklyn 22. New York

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 studding 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 AMERICAN BUILDER

Doesn't darken when wet Virtually self-cleaning ... resists soiling and discoloration J-M Silicone Seal is invisible . . . does not change true color of siding

E . With

Lasts for years and years

Not a surface lacquer ... not susceptible to peeling or scuffing

Not a vapor barrier . . . the wall is allowed to "breathe"

This unretouched photo of J-M Asbestos Siding shows he SILICONE SEAL REPELS WATER AND WATER-BORNE DIRTI

11:00

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 caromic granules. Superior Journy by means or colorrari corumn groupes. Superior dimensional stability. It holds its shape and size-resists worping, curling, or shrinking . . . retains Its Initial appearance after exposure.

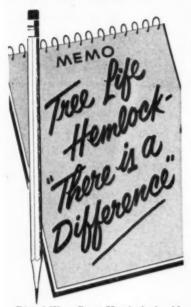
your sales.

*Ask about she new Johns-Manville Dover White which has been vastly improved in lasting whiteness and which has also been Silicone Sealed.

CONTRACTORY OF THE PARTY OF THE

• Identified with the Johns-Manville name, a 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

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. Hos 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 packets.
- West Coast Hemlock is durable. Not breshy.



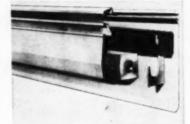
Write for "TREE LIFE HEMLOCK," a 20-page booklet on properties and uses. St. Paul & Tacoma Lumber Company, Dept. AB, Tacoma 2, Washington.

Specify with Confidence TREE LIFE WEST COAST UPLAND HEMBER OF THE TREE LIFE FOREST PRODUCTS FAMILY 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 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 kalsomine type paints. 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 singleoven, 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
Address
City State
Please indicate whether you are
Builder () Dealer or Distributor () Other ()
No No No No No No
No No No No No No
No No No

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 moneysaving ideas.



CECO STEEL PRODUCTS CORPORATION Offices, warehouses and fabricating plants in principal cities. General Offices: 5601 W. 26th St., Chicago 50, III.

Combination Inside-Outside

Steel Trim

Typical corner assembly details

Inside Steel Casing



BUILDING BUY-WORDS

SAVE 70%? Yes! Such results are not exceptional-with new Shakertown GLUMAC Units. They're deep-grooved, factorystained cedar shakes which are electronically bonded to a tapered, asphalt-impregnated backer board. In big, easy-to-handle 16" x 4634" panels, GLUMACS complete a "double-coursed"



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shake sidewall up to three times faster! Just 22 pieces cover 100 sq. ft .-- compared to over 400 separate shakes and undercourse shingles. Tops in beauty, quality and economy, too! See the Yellow Pages, or write Perma Products Co., Cleveland 27. Ohio.



I'VE KNOWN WEIS PRODUCTS for years and I've never run across anything they've made that didn't have solid quality in every detail. Weisway cabinet showers are no exception. For instance, receptors have strength of 14 ga. iron, the heaviest used for vitreous porcelain enameling. Easy to handle and install and won't rust. Walls are galvanized bonderized steel with two coats of baked-on enamel. Ideal for remodeling; you need no special preparation for building walls or floors. Choice of colors. Standard

or corner entrance models for exposed or built-in installa-Doors available. For literature, write Henry Weis tions. Mfg. Co. 447 Oak, Elkhart, Indiana.

RECENTLY I SAW AN INSTALLA-TION of Cermak's new Carra-Plas plastic wall tile and am sure you will agree that this new giant size (81, x 81/2") tile is the ideal solution for added saleability in your new homes. No available clay or metal tile approaches the modern decorative design of these distinctive tiles. Carra-Plas tiles closely resemble expensive glass tiles in everything except price. Available in ten plain



pastel colors, these tiles will not chip nor craze. Easy to clean, they retain their fresh sparkle for a lifetime. Installation can be made on any smooth, sound wall or ceiling. For complete information, write to Cermak Tile Company, Inc., 4901 Brookpark Rd., Cleveland 29, Ohio.



KITCHEN DESIGNS FOR ONLY \$5? Yes, it's a new service for builders and lumber dealers being

offered by Mutschler . . . specialists in hardwood kitchens. You send rough floor plan with overall dimensions to be used, prefer-

ence of natural or enamel cabinets, color and style desired . . Modern, Early American or other. Mutschler then advises cost for detailed floor plan and artist's sketch of kitchen as it will appear when completed. (Cost, based on number of appliance and cabinet units used, may be as low as \$5.) Your 'okay" starts a kitchen design like those featured editorially in leading women's magazines . . . a design that sells the kitchen, sells the home! For free quotations, mail rough plan and information to KITCHEN DESIGN SERVICE, Mutschler Brothers Co., Nappanee 4, Ind.

(Advertisement) THE BURKS HV SERIES PUMPS work equally well installed horizontally or vertically. Because of this unusual installation flexibility, builders can put this system in cramped quarters where other system would fit. The BURKS HV Water Systems are examples of fine engineering. They come with fine engineering. They come with "KAM ACTION"-BURKS patented new impeller design with straight line volute, providing greater capacity per horsepower. HV series pumps have capacities up to 4850 gal. per hour-depths to 210 ft. The 'Vent Air" impeller hub



10 - 10 -

breather, another invaluable feature, makes priming easier, bleeds off air and gas from case. Many other features make BURKS HV Series Pumps and Water Systems extremely dependable and trouble-free. Be sure to write for complete details at once. Decatur Pump Co., 13 Elk St., Decatur, Ill.

TOPIOE



THIS CAN HAPPEN . . it DOES happen! Every year TERMITE damage to homes amounts to millions of dollars in 47 of the 48 States . . . and ROT damage is 10 times greater. Stop TERMITES . . prevent ROT. Protect your reputation and build to last with WOLMANIZED brand pressuretreated lumber. It is lumber scientifically processed-impregnated un-

der high pressure driving the preservative deep into the wood fibres. WOLMANIZED lumber makes sure future protection from TERMITES and ROT . . . produced under one specification by American Lumber and Treating Co., Chicago, Illinois, or its licensees. Use coupon for FREE information

EVER SINCE House Beautiful magazine featured the Elkay Sit-Down sink in connection with its 1954 Pace Setter house, inquiries have been flowing in from builders. It's a natural houseselling feature. Here at last is a sink



that cuts way down on back-breaking kitchen labor. Mrs. Homeowner can now sit down for all those food preparation tasks such as peeling, sorting, cleaning and slicing vegetables, fruits, fish, etc. And, the sink is made of famous, nationally advertised Elkay stainless steel. Shallow bowl is for sit down tasks, deep section for normal dishwashing. Write Elkay Mfg. Co., Chicago 50, for full details.

BUILD BETTER TO SELL IN 1954

BUILDERS WHO "SET THE COMPET-ITIVE PACE" will have success in selling new homes in 1954. The successful builder will use every skill he has in construction and all the plus values possible within the price range of the homes planned-and these plus values will be color, and then more color-tile is a must for kitchens and baths-"built-in" features are a sure attraction. There will be no excuse for failure to

sell in '54 if the operative builder correctly evaluates and uses the many fine improvements which manufacturers of building materials and products have made available and ready for delivery through your building material dealer.

Catalogs-

and Manufacturers Literature

488—ALUMINUMBLINDS

— 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.



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.



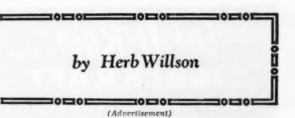
• FOR MORE INFORMATION USE COUPON, PAGE 214 MAY 1954



489 — HARDWOOD PLY-WOOD — product uses are told in new 20-page booklet, "A Treasury of Hardwood Plywood," stated to be first complete compendium of essential information 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, Ill.



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, basement 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.



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 dishwather . . . 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, scieen 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.



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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.

BUILDING BUY-WORDS
5510 Cornelia Avenue Chicago 41, Illinois
Please send information on products checked:
□ PERMA PRODUCTS CO.—Shakertown GLUMAC Units □ HENRY WEIS MFG. CO.—Weisway Cabinet Showers
CERMAK TILE CO Carra-Plas Plastic Wall Tile

MUTSCHLER BROTHERS COKitchen Design Service
DECATUR PUMP COBurks HV Series Pumps
AMERICAN LUMBER & TREATING COWolmanized
Lumber
ELKAY MFG. COSit-Down Sink
] IN-SINK-ERATOR MFG. COComplete Electric Sink
IN-SINK-ERATOR MFG. CO.—Complete Electric Sink RICHKRAFT CO.—Redi Roll of Richkraft Papers
Vame
Address
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217

Let It Rain.... SISALKRAFT Gives Positive Protection to Building Materials and Equipment

> This waterproof reenforced 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:

... waterproof membrane between fill and slab ... under all flooring

> ... curing and protecting concrete ... closing-in jobs in progress ... sheathing and many others

> > Available in widths of 3, 4, 5, 6, 7, 8 and 13/2' at Lumber and Building Supply Declers everywhere. Write for free samples and information. Dept. AB-5, Attleboro, Mass.

Catalogs

492 — A W N I N G W I N -DOWS — "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.



494 - FUNCTIONAL CEILING - offers triple advantages of radiant panel heating and cooling and accoustic 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.



493 - ELECTRICAL FIX-TURES-"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.



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

AMERICAN SISALKRAFT CORPORATION

Attleboro, Mass. • Chicago 6, III. New York 17, N. Y. • San Francisco 5, Calif.

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 hear 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.

Why not take a look at some typical Dodge Reports covering work right in your territory. We'll gladly let you see them and send along our informative book telling how others use Dodge Reports profitably. Timely, accurate, daily Dodge Reports are backed by the nation-wide facilities of the Dodge organization.

> Make sure that from this day on you don't miss out on any jobs you want.

Write today for book. No obligation.



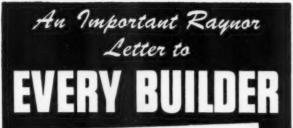
TAKE THE FIRST STEP IN EVERY SALE Dept. AB-554, 119 W. 40th St., New York 18, N.Y. Timely, accurate construction news service East of the Rockies COMPORATION

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3201

.W. DODGI

CONSTRUCTION



Dear Mr. Builder:

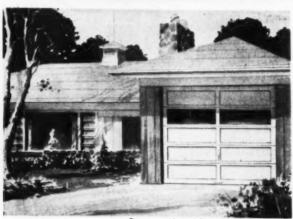
The beauty of the Raynor residential five section garage door, illustrated in this ad, is typical of the full door value found in every phase and model of the Raynor complete line of Wood Sectional Overhead Doors.

By building a door to fit every type of residential, commercial, and industrial door opening, Raynor Mig. 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

P. S. - The entire Raynor line is equipped with Patented Graduated Seal for complete weather protection and ease of operation





Catalogs

496 — AIR CONDITION-ING - basic information about heating and cooling homes is contained in this 24-page booklet. Besides discussing principles of blendedair 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.



498 - POWDER-ACTU-ATED 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 acces sories. 56 drive pins, threaded studs. Ramset Fasteners, Inc., Dept. AB, 12113 Berea Road. Cleveland 11 Ohio



FOR MORE INFORMATION USE COUPON, PAGE 214

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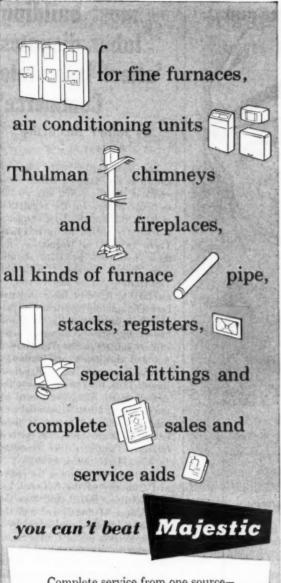
497 — ALUMINUM WIN-DOWS - new 40-page catalog lists manufacturer's line, including intermediate projected, classroom and combination windows, ribbon-type heavy section custom and classroom windows, gla-block, casement, utility and basement windows, sun canopies, sills and channels, Specifications, glazing details, hardware, types and sizes are given full- or half-size details. Valley Metal Products Co., Dept. AB, Plainwell, Mich.



DOORS - 12-page booklet gives construction features, typical installations of both standard model, stretch springtype, 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. AB. 5100 Fields Ave., Columbus 16. Ohio,



E. W. Goddard, Sales Mgr



Complete service from one sourcethat'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 a equipment to complete any seasonal or year-round air conditioning jobfrom basement to rooftop-is available from one source. Write today for the full story of Majestic's complete service and dealer cooperation.



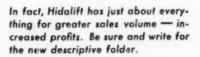




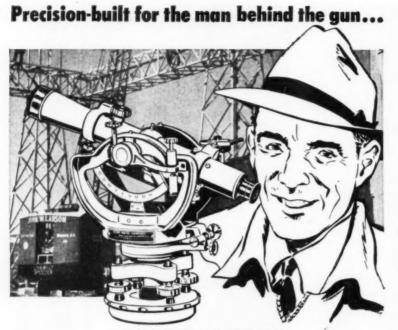
TRULY THE MOST MODERN SASH BALANCE ever made! ACCLAIMED BY BUILDERS, CONTRACTORS, HOMEOWNERS . . . EVERYWHERE!



Tension is applied DURING installation on "L" type attaching brocket; AFTER installation on "L" and "Cup" types. It's 100% concealed • It's FASTER' to install • It's WHISPER-QUIET in operation • It provides TWO methods of tensioning • It has POSI-TIVE, NON-JAMMING action • It has a self-centering guide arm







Model 3000 sold complete with tripod.

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 oldstyle cross bars and wyes. What's more it has a silvered 4¼" 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
- running lines for curbs and sidewalks
- aligning foundation piers
- plumbing walls and uprights
- checking walls under construction
- ascertaining slopes for tiling
- relocating lost surveying monuments

We offer expert REPAIR SERVICE on all makes, all types of instruments

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-

DAVID WHITE

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.

 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!"

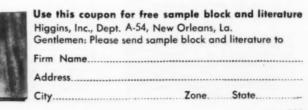
of Higgins Block

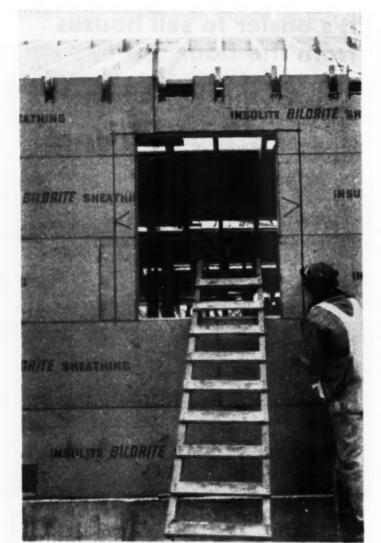


The Robert P. Gerholz houses in Flint, Michigan, have gained national attention because of their up-to-the-minute design. Right from the first, these houses have featured the up-to-the-minute flooring, Higgins Block. Besides the lustrous, sales-making richness of texture, look at all the other advantages 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, climateproof
- 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







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. Whats the best way to keep track of it?

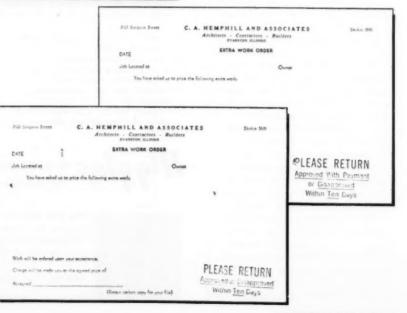
Filled out and sent to owner as soon as possible after extra job

has been agreed upon verbally.

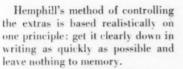
In the main, owners like this system, sign and pay as asked

Same form is sent if job has to be figured on a cost-plus

basis—but the rubber stamp in



control the EXTRAS in custom building



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 costplus 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.

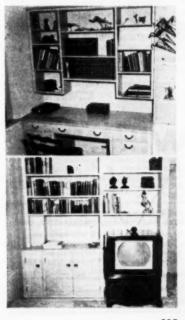
To keep an account of such work Hemphill includes as a part of the job's master file an "Adjustment on Allowances" sheet. To this sheet are posted items picked off the bills from the various contractors as they come in to the builder. Thus the final itemized billing to the owner will reflect not only 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.

JOB NO Owner DATE DESCRIPTION	ADDENDA BRITTEN	E.W. WRITT

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 . . .

Basic unit for addition to any forced-air warm air furnace. (only 43" high)

> 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)

1

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.



Manufacturers of the industry's most complete line of warm air furnaces, pipe, fittings and ducts for bome and commercial use.

THE WILLIAMSO 3525 MADISON		R COMPANY
Please send me o Basic units [space cap] H W.A. furnace	with bl	ower 🗌 with
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

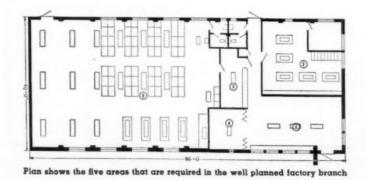
office space • five components dictate display area • service counter • demonstration area • when you build for shop and storage • sales and service

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. 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

Careful consideration must be

(Continued on page 228)



HOW TO CREATE ROOMS THAT SELL HOMES FASTER



This is

- designed for long life

NEVAMAR conforms to NEMA specifications

and lasting beauty will not craze, crack or peel mithstands boiling water · resistant to separate barns nat affected by groase alcohol, fruit acids alcohol, fruit acids annenia, bieach, ink or similar sabstances

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IEVAMAR

Dineen & Son, 1510 N. Homewood Ave., Pittsburgh 8, Pa.

Build in the carefree beauty of 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.

DISTRIBUTOR: THE NEVAMAR COMPANY, ODENTON, MARYLAND

Manufacturers of Nevamar High-Pressure Laminates . SARAN FILAMENTS . Wynene Molded Products ODENTON, MARYLAND . NEW YORK: EMPIRE STATE BUILDING . LOS ANGELES: 5025 HAMPTON STREET

In Canada: Richmond Plastics, Limited . Richmond, P. Q.



The larger drum of the new $3\frac{1}{2}$ cubic foot model has ample ca-pacity for even the lightest ma-terials. 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 Scal for positive bearing protection, guar-anteed for life of mixer; power nower

The New Muller 31/2' Plaster and Mortar Mixer.

throwout : hinged engine housing : selflubricating, self-aligning bearings : ball thrust on paddle shaft : new safety grid.

Prices F.O.B. Factory 1 H.P. Electric Motor\$324.00 2.7 H.P. Briggs &



Muller 31/2' Tilting Type from \$315.00 up. F.O.B. Factory Also made in 3' and 6' sizes

MULLER MACHINERY COMPANY, Inc.

Cable Address MULMIX L.

Metuchen 4, N. J. MAY 1954



227

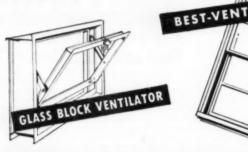
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"JOB-CONDITION" SLIDER WINDOW – New, complete package-designed for feel-greef onthe-job adjustment. Fits any through-wall thickness from 416" to 536". Instells in rough opening by simply noiling through fleshing fins, which are conceeled by integral exterior finish. We challenge any other slider window on the Backet to match our features!



PER-FIT-The aluminum window with custom features-at mass-production prices. Every feature of this solid, rigid window spells quelity ... with spiral-spring tension balancers on both upper and lower sosh-welded sill corners and internally brazed sosh corners-permenent weather seal. Compare its quality-then compare its grice!



. . .

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 widh glass block. You'll want to see this new window—every feature is engineered for customer appeal.

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

This new slider window-the

"JOB-CONDITION SLIDER" was developed after intensive job inves-

tigation and laboratory research to

meet an unfilled demand for a *fool-proof* horizontal slider window easily adjustable to all job

requirements—one package to fit all through-wall thicknesses from

These four great windows . . . "the PER-FIT line" . . . offer you

your best opportunity to satisfy

the growing demand for modern

hungs.

43/8" to 53/8"!

aluminum windows.

BEST-VENT—Here is the window acclaimed by all three: the architect, the builder, and the user! Famous BEST-VENT has counter-balanced such—beth top and bottom open simultaneously, at the touch of a finger. The most modern aluminum window in America—at surprisingly low cost! Easier to sell, easier to install.

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.



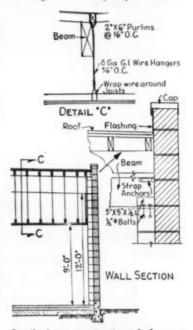
sales-service building

(Continued from page 226)

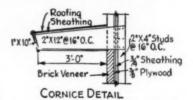
parts, is an important consideration.

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



Detail shows construction of the suspended ceiling in the display-office area



Cornice detail illustrates construction of the canopy at the front of the building

many sales will be made here.

Space requirements for a branch office and its five integral parts will vary with the type and size of the manufacturer's product. A small portable power tool has far different space needs than a larger product. Space allocations for the Portland Skil operation are as follows: (Continued on page 230)

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 4" 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 today for 4-color brochure

W. E. Dunn Mfg. Co. 418W. 24th St., Holland, Mich.



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. CONTENTS: Estimating Fundamentals. Foundation

CONTENTS: Estimating Fundamentals. Foundation Material. Framing. Exterior Finish. Hardware. Building Information. Estimating Short Cuts. Labor Hours per Unit of Work. Carpentry Mensuration. Mathematical Reference Tables. Stair Estimating. How to Plan a House.

1950, 5th Ed. 304 p. 123 illus. 60 tables. 5x8. \$3.75



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MAY 1954



Calcium Chloride

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, adorless, 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-bystep instructions on how to end your dust problems.

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If you are not now handling SOLVAY Calcium Chloride, write for details, prices, advertising and promotion material.

GET THE FACTS-MAIL COUPON NOW!

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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:



ON ERECTION WORK boom reaches between girders, through windows and doors — hoists concrete buckets and planking to upper stories ... saves hundreds of man-hours.



ON CONCRETE POURING, other material handling jobs, telescoping boom reaches under branches, over obstructions, into tunnels — handles dozens of close quarter jobs.



ON YARD WORK reaches into box cars ... over fences ... between stockpiles to move material, load trucks, etc., in a hurry. 12H53

Quick Convertibility to HYDROHOE



By actual stop-watch test, crane has been converted to dragshovel front end by one man in *less than one bour!* And on trenching, extra telescoping action of Hydrohoe boom cuts lost time moving up by as much as 40 percent.

Get the full story on the all-bydraulic Hydrocrane with its many attachments. Write for interesting new literature.



BUCYRUS-ERIE COMPANY SOUTH MILWAUKEE, WISCONSIN



Built on a corner lot facing a busy street, the company used brick veneer to dress up the exterior

Total area	3,800		ft.	
Office space	504	M	pt.	
Display area	510	61	60	
Service counter	96	44	44	
Demonstration area	144	68	68	
Shop and storage area	2,160	**	"	

The building is concrete block with brick veneer on the sides facing the streets. Footings are 16x8 inches for the block and veneer walls, and 12x8 for the block wall. Foundations are 12 inches for the combination walls, and 8 inches for the block wall. Pilaster footings are 24x12x12 inches and the pilaster blocks, supporting the clear span beams, are $16\frac{3}{4}x75\frac{5}{8}x185\frac{5}{8}$ inches. The wood beams are $7x21\frac{1}{8}$ inches 40 feet long. The beams are placed 9 feet 6 inches on center. Purlins (Continued on page 232)

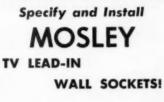


Display area is most important in the planning of this type of building. Demonstration room is at the rear. Folding doors can separate it from the display room



This picture of the display room shows relationship to the window area. Special night lighting draws passerby interest

When Your Clients Ask For T V Sockets



- Made for television!
- . Low cost!
- Flush mount in almost any type wall!
- Available in types for every installation requirement!

MOSLEY Cat. F-1PK TV Wall Socket for single leadin. Supplied with attractive ivory or brown face plate, mating plug and instructions. List Price, only \$1.95.

Other MOSLEY TV WIRING ACCESSORIES include: MOSLEY TV Conduit, Plaster Rings, Roof and Wall Lead-in Entrance Devices, 3-Way Antenna Switches, 2-Set Couplers, etc.

> Available at Radio and Television Parts Distributors, coast-to-coast. Write for name of nearest supplier, free catalog and booklet "How Builders Fit Into The TV Picture."

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HOLT NMPL12 FLOOR SANDER

with patented demountable cushion that's replaceable in minutes right on job-no long, costly delays when nails rip cushion. Designed and built to eliminate vibration and chatter, so you get smooth floors easily. Double, self-adjusting belts, sure-grip clamps, highspeed cutting keeps jobs rolling, enable you to sand more floor daily.

HOLT Rotary Edgers for quick, easy sanding of edges, corners, stairs, closets, etc. Two-hand front and back controls permit fast starts and stops, improve control on close work.





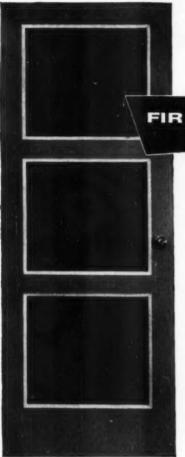
HOLT Floor Machines put a sheen on floors that wins friends and extra business. Use for waxing, polishing, scrubbing, rug shampooing, steel wooling.

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built-to-last

FIR PANEL DOORS

won't come apart ...won't warp ... stay straight

DEPENDABILITY ... a word with real meaning if you use fir panel doors. Hang them, then forget them-secure in the knowledge that you won't have to repair or replace them in a year or in twenty years. This is dependability that means dollars to home builders. And speaking of dollars, fir panel doors with all their plus features, cost less than most doors on the market-two to three dollars less. More home for the money? That's exactly what you can offer if you include fir panel doors.

Charlie Rogers is typical of the proud craftsmen that maintain the traditional quality in every fir panel door. Each door is meticulously put together. Each is made with carefully selected straight grain Douglas fir. Each carries the FDI hallmark to assure exacting U.S. Commercial Standard requirements.



restyled

FIR PANEL DOORS add buy-appeal



More color, more texture are the modern decorative themes. Restyled fir 'picture-panel" doors provide both. Wider, flat bevel molding frames the panels for exciting decorative treatments . . . makes the door a dramatic room feature. Make your interiors come alive ... add eye-interest, buy-interest in the homes you build.

CALL YOUR REGULAR SUPPLIER OR WRITE FIR DOOR INSTITUTE, TACOMA, WASHINGTON 232

sales-service building

(Continued from page 230)



The office area is large enough to accommodate five desks, somewhat larger than that found in other small businesses

(2x6) are 16 inches on center and are covered with 1x6 D&L roof sheeting. The roof covering is a class "C", 3-ply, built-up roof.

The slab is five inches with six inches of gravel beneath. A waterproof membrane was imbedded in the concrete slab. First, three inches of concrete were poured and the membrane installed. Then two inches of additional concrete were poured over the membrane.

Ceilings were dropped for the customer portion of the building. Wire (8 gauge) was tied to the purlins every 32 inches (32 inches on center). These wires carry 2x4 ceiling joists 16 inches on center. Fire resistant acoustical tile was used as the finish material.



Parts and service counter, adjacent to the shop, is a must for factory branches. is covered with stainless steel .



The shop and storage area is ample for repair jobs, storage of parts, and inventory of new equipment

Are builders missing a bet?

You know from experience that you sell a house by selling its features. You also know that the kitchen contains some of the most important selling features in the house.

There was a time when a builder got by with a modern range in the kitchen as a selling feature. Then he began to include a refrigerator and, one by one, other appliances. Why? Because his customers demanded them!

Now customers are demanding freezers. More and more homemakers every year want this appliance that saves them time, money and work, allows them to serve better meals, at lower cost. They want to "be modern—live electrically." Last year, more than 1,000,000 freezers were installed in American homes.

That's why you're missing a bet unless you design your kitchens with space for a freezer—allowing, too, for the weight of this appliance and its contents, in designing the load-bearing strength of the floor.

Don't miss out on this important selling feature. If you need more information, write to any of the manufacturers listed below-or see their dealers in your community.

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"THAT'S WHAT SOLD ME ON THE HOUSE . . . it's the most attractive room divider, gives me a handy place for the silverware, plenty of shelf room for even my biggest platters and bowls, and it opens out into a full sized dining table. And talk about quality . . . it's real custom furniture. Why, the builder even told me he couldn't have planned that cozy kitchen-living-dining room combination without the HUBBELL CHESTABLE."

MAKE PRACTICAL LIVING SPACE OUT OF WASTE ROOM . . . when you install or specify Hubbell Chestables you double space

utility . . . cut costs, add buyer appeal. In amber maple with Formica top and table as a complete unit, or without top for installation in custom bor or cabinet combinations



H. L. HUBBELL MFG. CO. Dept. AB-5-ZEELAND, MICH.

Sales come easier with WEL-BILT Overhead DOORS

Residential • Commercial • Industrial





Whatever your building project - if it incorporates overhead doors --- your chances for sales improve when you feature dis-tinctive, sturdy, easy-lifting, favorably priced WEL-BILT Doors.

Dependability --- Well-seasoned, sag-resistant lumber; strong, wellproportioned hardware: custom-designed tension type springs; scientific weather sealing; super struts on larger sizes.

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over after quick delivery to the site; insure years of fine service.

Competitive Pricing - "Geared production" gives WEL-BILT a competitive edge. This means an all-round superior product which in turn gives you a competitive sales advantage.

Get the WHOLE story — Send Coupon — Facts speak louder than claims! The WEL-BILT catalog gives you the facts, proves these claims. Just fill in and mail the coupon --- no obligation.

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BUILDERS, ENGINEERS, ARCHITECTS ARE ON SURE GROUND WHEN THEY RELY ON ORANGEBURG ROOT-PROOF PIPE AND FITTINGS FOR DEPENDABLE PIPE-LINES UNDERGROUND. ORANGEBURG'S TIME-DEFYING QUALITY — PROVED BY MORE THAN A MILLION SUCCESSFUL INSTALLATIONS — HAS MADE IT AMERICA'S MOST WANTED PIPE.

Orangeburg Pipe and Fittings are strong, tough, resilient. They resist corrosive ground waters and chemical wastes, traffic tremors, earth deflections, temperature variations. Taperweld® Joints—selfsealed without cement or compound—help keep the pipeline root-proof and in line. Light weight, long lengths and fewer joints speed assembly and cut costs of handling and laying.

Use Orangeburg Root-Proof Pipe for...houseto-sewer (or septic tank) connections, down-spout and storm drain lines, other non-pressure, outside uses. Use Orangeburg Perforated Pipe for septic tank disposal beds, foundation footing drains also the draining of wet spots in lawns, fields, drive-in theaters, athletic fields, parking lots, airports. Informative catalog 306 on request. Write Dept. AB54.

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Ve Bend connected to Orangeburg Pipe making a 45° turn. Joints are leak-proof and reat-proof.



Va Bend connected to this down-spout forms a 90° turn. Orangeburg Fittings save installation costs.



Wys Fitting showing a branch connection. Orangeburg Fittings are the same high quality as Orangeburg Pipe.





Useful slide rule estimates residential air conditioning costs for four different types of air conditioning units

A SLIDE RULE to estimate air conditioning costs

A useful slide rule for determining season operating costs of home cooling systems is available to contractors and builders. This useful device is made of heavy, glazed cardboard, and measures 8x334 inches. Called the "Economy Guide for Hame Cooling." it enables the user

Home Cooling," it enables the user to compute and to compare what the season operating costs will be for homes equipped with any one of four kinds of cooling systems—waste water condensers, cooling towers, evaporative condensers and air cooled condensers. A booklet listing utility rates in 98 cities is furnished with the slide rule. The reverse side of the rule shows the number of months of cooling operation per year, as well as the humidity variations for all sections of the country.

The guide is available free upon request to The Coleman Company, Dept. AB. Wichita, Kansas, or La Porte, Indiana.



SORRY FOLKS, -THAT'S A KNICK-NACK SHELF, --- NOT BUNK BEDS."

AMERICAN BUILDER



Alert sheet metal men will take advantage now of this year's big building market by "talking Terne" for weathersealing.

Follansbee Seamless Terne Metal is the ideal weathersealing material for built-up, composition, wood, asphalt or asbestos shingle, slate or tile roofa. Tough, durable and malleable, Terne Metal should be used for copings, eaves troughs, flashings, gravel stops, gutters, valleys, and termite shields.

Properly installed and maintained, Terne Metal will last as long—or longer—than any roofing material with which it is used. Terne can be installed easily and quickly. *Remember, expansion and contraction are never a serious problem with Follansbee Terne Metal.* Leading distributors are prepared to supply you with this high quality Terne Metal in 40 lb., 20 lb, and 8 lb. coatings, in various widths from 4 inches to 28 inches, in 50 foot continuous rolls. Be sure to specify Follanshee Terne Metal the next time you need "Valley Tin" or "Roofing Tin."

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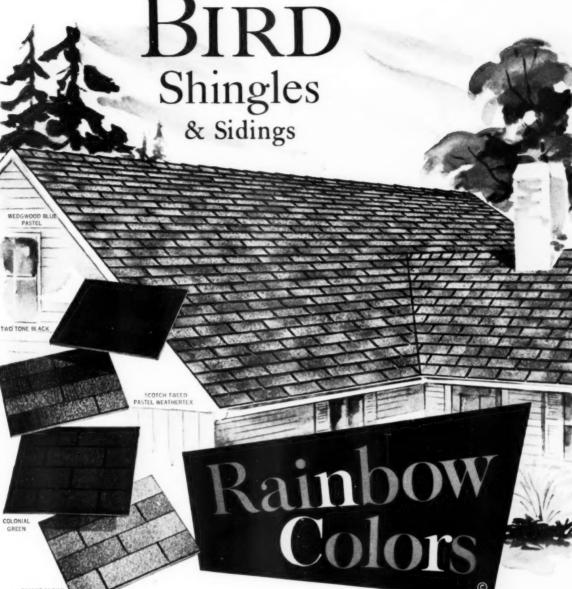
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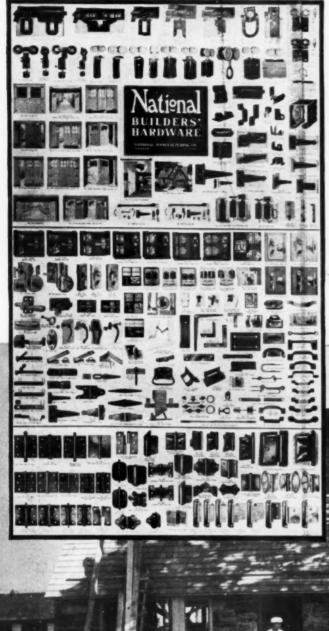
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