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MAY 1953

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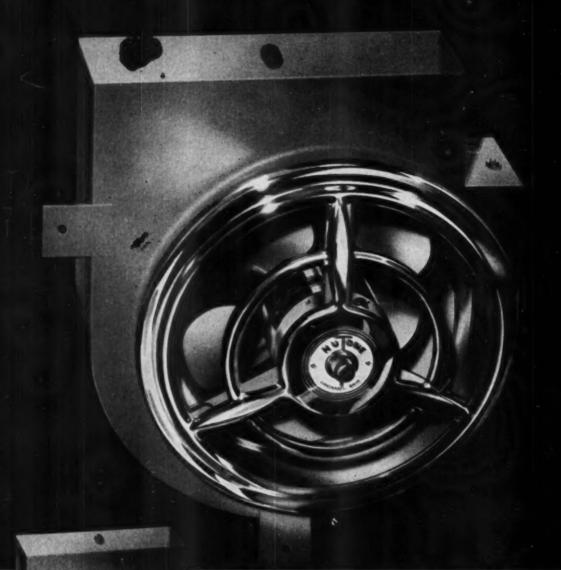
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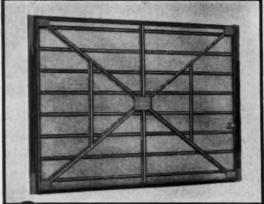
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ON THE COVER-(Center) The brightly roofed terrace is one of the outdoor living areas described on pages 102-108 that included in your houses will make them more saleable, (Top) Workmen see that reinforcing mesh is covered properly as floor slab is poured. For details of how to construct floor slabs against frost and dampness see pages 74-77.
(Lower left) Side view of prize winning Detroit house which is featured as this month's blueprint house. For four-color pictures of other views, blueprint and quantoty list see pages 66-73. (Lower right) How masons layed the slotted half of SCR bricks around windows is part of the case history report (pages 78-79) of their use on a Florida job.



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ON and OFF the RECORD

NOW IT'S National Home Month to provide greater opportunity for promotion of home ownership by media outside of the home building industry. Broadening the base of operations in this way interferes in no respect with established practices and designations. It does permit monthly magazines directed to millions of home owners and home buyers-Better Homes & Gardens, for instance-and magazines addressed to professionals in allied fields to add their power and prestige to increased home ownership.

THE NATIONAL Association of Home Builders, for example, will continue to set aside a week, NATIONAL HOME WEEK, as it has in the past four years, for the demonstration of thousands of new, modern homes.

IT IS EXPECTED by this magazine that interest on the part of the public in NAHB's NATIONAL HOME WEEK will be immeasurably heightened by the new tie-in of powerful promotion forces at work during NATIONAL HOME MONTH.

RETAIL LUMBER DEALERS, many of whom have held one-day observances tied in with the annual event, will continue to select their customary one day in the month.

IN A SENSE there is nothing new about designating a NATIONAL HOME MONTH. The Long Island Home Builders Association, for instance, traditionally extends its newspaper, radio and television promotion over a period of about three weeks, although the homes are open only through a period of eight days, including two week-ends.

CHICAGO never has limited its observance to one week, nor has it called the event, National Home Week. In this city it is the Chicagoland Home and Home Furnishings Festival, organized by the Chicago

Metropolitan Home Builders Association, and promoted by the Chicago Tribune. The homes are open on week-ends, five of them consecutively. It's a successful operation.

SEVERAL OTHER CITIES last year were unable to stage their event during the designated week, due to conflicts with other and older established events, Houston is a case in point. There, NATIONAL HOME WEEK came later in the month.

THAT'S ANOTHER advantage of calling the occasion NATIONAL HOME MONTH. There's flexibility for a tie-in any time in the month.

AN INTERESTING INQUIRY from New Wellington, New Zealand. asks for full information about NATIONAL HOME MONTH. What is it? How is a program organized?

THERE IS MORE than a likelihood that it's about to become International Home Month.

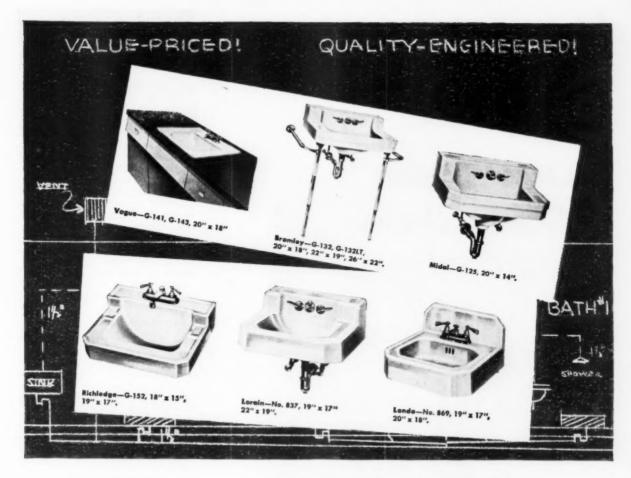
NO REASON, OF COURSE, why we should not expect to receive inquiries from Canada. Builders there should receive just as rich dividends from the event as their neighbors to the south.

TAXES AND MORE TAXES. Recently learned that the Seattle Home Ownership Council passed a resolution opposing the one per cent real estate transfer tax as now based on the total purchase price of the property. The council feels that the tax. while producing revenue, is usually exorbitant when measured against the equity in the transfer.

AS A COMPROMISE measure the Council proposed revision of the law to impose the one per cent transfer tax on the equity being transferred.

THE WHOLE IDEA sounds bad, but if there must be a transfer tax it is to be hoped that the compro-

(Continued on page 9)



A line so complete and modern it's a Natural to specify or sell!

A Natural

for lasting loveliness!

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RICHMOND



See your local lumber dealer or write

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Some builders and dealers have expressed concern about the residential slow-down during March and April. Those who have really studied the problem regard this as a period of adjustment in the changeover from a sellers' market to a buyers' market. It doesn't mean that the slack won't be taken up by volume building during the rest of the year. Instead, it is simply an indication that buyers are demanding more for their money and builders have had to adjust their sights.

Buyers aren't insisting on lower price homes. They are just holding out for better value and better planning in the homes that they do buy. Money isn't tight, but the splurge of feature-home publicity has made buyers hungry for things which they hadn't thought they could afford before. Now that they've been exposed, most of them will hold out for more house per dollar.

Andrew Kindem, president of A. A. Kindem and Sons, recently announced the opening of his new plant in Minneapolis, Minnesota. The building shown below will be devoted to manufacturing R·O·Ws for the Minnesota area.



Walton Onslow, public relations director of NAHB, recently announced that the 1953 National Home Week will he held during the period September 20-27 inclusive. Builders will be encouraged to follow the very successful 1952 promotion, "Parade of Homes." During the celebration last year, 12,000 model homes were on display in 150 cities.

homes were on display in 150 cities. Since the "Parade of Homes" involves acquisition of property so that many builders can erect model homes along the selected avenue, local participants should be organizing now. Community organizational suggestions are available through National Association of Home Builders, Suite 1116, Connecticut Avenue N.W., Washington 6, D.C.

(Advertisement)

What will the builders have to do to get sales? Cut prices? No, even at reduced prices the house without sales-appeal will be a slow mover. The really progressive builders are doing all right. They are putting the emphasis on individuality, quality and features. They are building and merchandising better homes. They are stopping the shoppers.

These builders are examining their own construction costs. They are selecting some higher priced items because they cost less to install and add quality to the finished home. They are picking products which have definite consumer appeal. Most of all, they are adopting the consumer approach of looking for features and value.

Glenn Ogden, President of Acme Millwork in Kirkland, Washington reports that his sales of R·O·W Windows to dealers in both Alaska and Hawaii have increased rapidly during the past few months. He attributes this to the fact that the pressure adjustment feature of R·O·Ws makes them the most flexible window for all climatic conditions. The home pictured below shows an R·O·W installation in Anchorage, Alaska.



Builders of the home below also purchased their windows through one of Glenn Ogden's dealers. The residence is in Honolulu.



Gordon Love, sales manager of R·O·W Sales Company, Ferndale, Michigan, has recently completed a survey of the farm residential building market. His attention was first drawn to this field by reports that the large majority of farm homes are more than 30 years old.

"From a building products merchandising standpoint," Love reports, "this sales area is fresh and fertile. Farmers have the cash-the need for home modernization products-and the buying habit of insisting on quality merchandise at a fair price."

(Advertisement)



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BETHLEHEM or BATTLE CREEK ...

Both have Electric Ranges!

People in different parts of the country may vary on what they want in new homes—in architecture or equipment. On one item, though, there's general agreement—an *Electric* Range in the kitchen. They've learned that cooking with an *Electric* Range is both economical and easy, and assures a clean, cool kitchen. No matter what the size or cost of your houses, an *Electric* Range can really help you sell them!



"Today there just isn't any question about the demand for electric cooking," says Mr. Harold S. Campbell, who built this house in Rosemont Acres, near Bethlehem, Pennsylvania. "They call me a'merchant builder,' and as a 'merchant' I like to cash in on a pre-sold market. Home buyers certainly are sold on the Electric Range."



This house in Battle Creek, Michigan, is one of 20 custom-built by Weller Brothers. "Whenever possible," says Mr. Bob Weller, "our homes include Electric Ranges along with other electrical equipment, under a package mortgage plan. We find sales much easier that way, and the customer is satisfied not only when he moves in, but remains that way for years."



A typical kitchen in the Rosemont Acres development by Harold Campbell includes electric refrigerator, electric dishwasher-sink with food waste disposer, and the range—of course, it's ELECTRIC! "If we didn't install Electric Ranges, our customers would make us include them," says Mr. Campbell.

More builders every day are

installing ELECTRIC RANGES



ELECTRIC RANGE SECTION

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

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On and Off the Record

(Continued from page 4)

mise passes. Presently, the law takes \$100 away from a purchaser of a \$10,000 house, regardless of what he pays down. The compromise might reduce the levy to five to 20 dollars. The difference is a few throw rugs and a modest house warming.

REHABILITATION in Los Angeles is in full swing. Following enactment of legislation to enforce required improvements, 6,000 inspections were made. Soon 234 permits for complete rehabilitation were issued. This goes a long way to prove that most of the evil of slum decay can be overcome simply by enforcing good laws requiring property to meet minimum standards of safety and sanitation.

WHAT AN American Builder editorial staff member will do to get exactly the right photograph to illustrate a good story knows no limits. Here's a picture of Field Editor



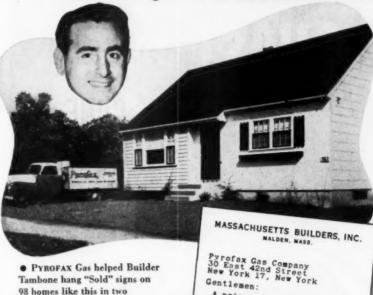
"Zeke" Zar getting a shot of an SCR brick application. It's taken from a jeep specially rigged for hunting. The flat platform on the front, on which Zar is standing, serves as the firing line. The rig belongs to Builder Culpepper.

DON DECKER, DENVERITE, probably will not be happy to see this statement, but he should be uncovered for what he is.

HE IS, in the judgment of this writer, a man of singular talents, interests and abilities which the home building industry has been seeking for several years to coordinate the industry with the administrators, faculties and students of light construction courses in colleges and industries

(Continued on page 10)

DYROFAX Gas is quick and easy to install . . . distributor service is outstanding!" SAYS BUILDER TAMBONE



Turn prospects into customers faster with this popular. low cost feature!

separate housing projects.

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For fuel--we decided on a
"PYROFAX" Gas installation to
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water heating.
"DYROFAY" GAS water heating.
"PYROPAX" Gas is quick and
easy to install and our
experience has proved that
the service rendered by the
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Your best buy is American-for top performance, dependability and service!





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Street
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On and Off the Record

(Continued from page 9)

DECKER IS A BUILDER. He spends about half of each working day at his business. The rest of the day is spent at the University of Denver in an advisory and coordinating capacity with respect to the light construction and lumber merchandising course.

INDUSTRY LEADERS beset with a multitude of other problems have long sensed the need for a better understanding of and working relationship with the administrators of these courses. The man with both the time and the ability has never come along.

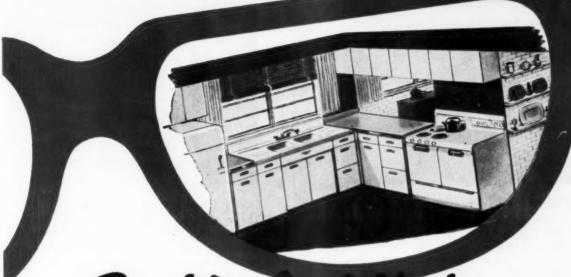
DECKER is the man. There are hundreds of builders keenly interested in the problem, but without the time to give or the experience in educational administration. There are dozens of educational administrators equally interested in the problem, but without the practical viewpoint of a builder or the connections in the home building industry. Decker is both. He should be appointed to head a liaison committee between the industry and the colleges.

WHAT COULD DECKER accomplish? He could bring the administrators of the several colleges together to discuss mutual problems among themselves. He could acquaint builders with the problems of the administrators. There are matters of curriculum, summer jobs, post graduation jobs, scholarships. loan funds for students, participation in local and national association conventions and meetings. student competitions, promotion of the courses to attract more young men to training for leadership in the home building industry, just to mention a few. And all of them are important to home builders.

FRANCE is going to spend more than one billion dollars on public housing this year—about 10 per cent of the national budget. Rent controls, still in effect after 30 years, have curbed private building, and reduced existing construction to the crumbling stage.

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The world's most modern kitchens



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Thanks to the biggest selection of matching styles and sizes, the world's most modern kitchens also are your most versatile.

In new Republic Steel Kitchens, you'll find cabinets to spark fresh kitchen design ideas—economical, mass-produced units that you combine in unlimited variations to give your kitchens a "custom-made" styling.

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City_

You know how smart, fresh kitchens help you sell homes. Now, see how well Republic Steel Kitchens help you carry out your kitchen ideas. Use them in laundries, utility rooms, recreation rooms, too. Get all the facts about this quality line that's competitively priced. Write Berger Manufacturing Division, Republic Steel Corporation, Canton 5, Ohio.

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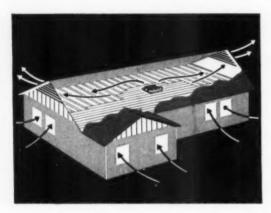
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Hunter's new automatic shutter

This modern ceiling shutter opens or closes automatically at the flip of a switch, or with automatic timer. Finished in neutral shade of baked enamel, it blends with all room colors. Shutter will fit narrow hallways, and is easily installed.



What about builder-retailers?

W/HAT can a retail lumber dealer do to prevent a builder from opening his own retail vard, and thus eliminate the dealer as a source of supply? The question, asked many times in the past few years, has been prompted by the fact that some builders have opened their own vards, are supplying their own material needs, and in some cases are competing with older vards. These builders, often criticized sharply by their former suppliers, might have replied by asking what can be done to prevent dealers, many of whom have been operating successful building operations for years, from going into the building business.

Because there has been plenty of room in the past eight years for anyone who could or would build houses, builders have not raised the counter question. But, if the market for new houses should tighten, the counter question might be raised. The answer to either question is the same.

So, let's examine the retailers' question and view it in its legal, ethical and economic implications. Legally, there is nothing that anyone in any business can do to prevent anyone else from setting up a competitive enterprise. Entrepreneurs in the free private enterprise system are specifically denied the right to stake out a claim or a territory and exclude competition.

Ethically, there is nothing that can be done. Private enterprise means what the term implies, and it must work for all or for none. It encourages every man to risk his capital and his time and energy in any legal enterprise he chooses, and in any location he chooses. The only justification for the system is encouragement of competition as the best means of achieving maximum efficiency, greatest service, wid-

est distribution and lowest prices. There is no ethical question involved.

Economically, then, an individual business concern or an entire business segment survives only as long as its performance justifies survival.

If a builder can produce houses more efficiently by supplying himself through his own retail channel he has not only the legal right, but the ethical and economic obligation to do so. The fact is, however, that if a retailer has the working capital and a full knowledge of his primary function as a service organization to builders. no builder in his community can afford to supply himself. There are numerous examples that prove this statement. It may be true that in the case of a very large operative builder no one vard in the vicinity has the capital, the plant or the personnel to supply him economically. But if several vards have the know-how they can. between them, and with no competitive restrictions, supply such a builder with profit to themselves, and for less than the builder can do it himself. This, also, has been proved.

The answer, then, is that independent retail supply is and always has been the most economical service of supply to builders, and that where the builder finds it expedient to supply himself, he does so because the independent retailer in the area is not performing as he could and should.

The same thing is true when the dealer goes into the building business. He does it because the local builders are not supplying houses at the best prices, or in sufficient quantity, or in modern styling. There is no basis for a quarrel. There is no justification for discussing ways of curtailing competition. There is a need in some places, apparently, for careful self-examination.

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AB Washington News Letter

For the Light Construction Industry

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

Washington, April 20, 1953

- AN EARLY INCREASE in FHA and VA interest rates seems likely. Pressure has continued from many sides, and all indications point to an early boost. Without it, mortgage money may get tight before the year-end.
- HHFA ADMINISTRATOR COLE indicated early this month a final decision has not been made. But he thinks it essential that the interest-rate question be answered "definitely and quickly."
- ▶ A TREASURY DEPARTMENT MOVE on April 8 could be a tip-off. The department announced it will sell new 30-year bonds with a 3 1/4 per cent interest rate. That is the highest rate since 1934, and it will divert funds that otherwise might go into mortgages. This is especially true of 4 per cent VA's.
- ▶ THE VA RATE will become "even more unrealistic," according to industry spokesmen. NAHB predicted the Treasury's action will dry up VA financing completely unless quick steps are taken to increase the 4 per cent rate. Meanwhile, FHA will also feel the upward tug.
- ▶ "THE SITUATION requires immediate action," declared E. M. Spiegel, NAHB president. He said it puts homebuilders in the position of being "all tooled up, with nowhere to go."
- ▶ FNMA SUSPENDED over-the-counter purchases of FHA and VA mortgages on April 13. The agency said the move was a "precautionary measure," but it was taken as further evidence of a pending boost in interest rates. The freeze does not apply to defense or disaster housing or to outstanding pre-commitments.
- ▶ GUY T. O. HOLLYDAY of Baltimore, Md., was named by President Eisenhower to head the Federal Housing Administration. He will succeed Walter L. Green, FHA commissioner since July 2, 1952.
- > SENATE CONFIRMATION of the Hollyday appointment is expected. No opposition has appeared, and final Senate action was pending as this issue went to press. Hollyday is president of the Title Guaranty Company of Baltimore, and a former president of the Mortgage Bankers Association.
- ▶ A TWO-PRONGED STUDY of housing problems is under way at HHFA. One part of the study will check existing housing policy against the nation's housing needs. The objective: To strengthen programs that are doing a good job, and to revise or replace those that are not.
- ▶ SECOND PART OF THE STUDY will cover the question of organization should there be an HHFA to administer the government's housing program, or should such agencies as FHA, for example, be lodged in the Treasury Department.
- ▶ ADMINISTRATOR COLE says this study is going to take considerable time. It is doubtful, therefore, whether any major recommendations can be made in time to be considered in this session of Congress.
- ▶ PENDING FINAL RESULTS from the over—all study, Cole plans to review his agency's present operations with a view to improving efficiency, cutting waste, and making such minor adjustments as may be necessary to bring current programs more in line with current requirements.
- ▶ PUBLIC HOUSING will continue at the 35,000-unit level next year if Congress goes along with the housing administrator. Cole personally

opposes public housing, but he recommended that Congress continue the program at its present rate until his study of the nation's housing problems can be completed.

- ▶ STEPPED-UP SLUM CLEARANCE activities in the coming months is the forecast of HHFA's Division of Slum Clearance and Urban Redevelopment. In a report to Administrator Cole, the division said work is "well advanced" on 116 projects in 78 cities. Another 175 localities are at the early planning stage. For the 116 projects under way, more than half will provide new homes. Private redevelopers are expected to provide around 98 per cent of these new housing units, the division said.
- LONGER TERMS are being pushed for FHA and VA mortgages. Since the days of Regulation X, the agencies have kept mortgage terms pegged at less than the statutory limits: Twenty-five years on homes costing \$12,000 or less; 20 years on homes costing above \$12,000. Builders want the full 30- and 25-year terms which the law permits.
- ▶ HOPE FOR AN EARLY TAX CUT has faded. Senator Taft (R.-Ohio), majority leader in the Senate, said this month there is almost no hope of reducing taxes this year. This agrees with President Eisenhower's views, and it virtually closes the door.
- RENT CONTROLS will be extended for perhaps another full year. The Senate Banking Committee has approved a bill to retain general rent controls until September 30. Rents in defense areas would remain under a lid until April 30, 1954. The President has requested such an extension.
- REPRESENTATIVE HOFFMAN (R.-Mich.) will head a congressional probe into housing activities of the federal government. The investigation, moving quietly so far, aims at stamping out "inefficiency, duplication and waste" in the government's housing programs. Staff members say they have been amazed at the number of different government agencies that touch housing in one form or another.
- STAND-BY CONTROLS on real estate credit are being considered. Senator Capehart (R.-Ind.) is pushing legislation to give the President authority to impose a "90-day freeze" on the economy in case of national emergency. Real estate credit is included. If the bill reaches the House, it will meet formidable opposition. Chairman Wolcott (R.-Mich.) of the House Banking Committee, is on record against any new controls legislation. And such bills must clear his committee.
- ▶ DEFENSE-AREA HOUSING reached a sort of half-way mark in March. At that time, 50 per cent of the units programmed for private construction had been started. About 34 per cent had been completed. The government to date has designated 222 areas as "critical," and HHFA has programmed housing in 210 of them a total of 97,658 units, both sales and rental.
- ▶ PLANS TO PURCHASE new and used homes in 1953 appear to be "slightly more numerous" than in 1952. A Federal Reserve Board survey found consumers more confident about finances than they were a year ago. A greater number said times now are better for home buying.
- ▶ EXPENDITURES for private residential construction in the first three months of this year were up 10.9 per cent from last year. This was a joint estimate made by the Departments of Commerce and Labor. March was 7.1 per cent higher than the same month a year ago. Including all construction, the first quarter of 1953 set a new all-time record.
- ▶ ROLE OF VA in the housing picture since World War II was pointed up by a recent announcement in which the agency said it has approved 2,997,801 GI loans for purchase, construction, or improvement of homes. Total amount of these loans: \$19.5 billion.
- > HOUSING STARTS in March were estimated at 97,000 by the Bureau of Labor Statistics. This compares with 103,900 in March a year ago. Private starts in the first three months this year were up slightly from 1952, BLS reported.
- ▶ A FINAL FIGURE for 1952 showed 1,127,000 starts, of which 1,068,500 were private. Last year's total compared with 1,091,300 starts in 1951, and it leaves 1952 the second highest year on record.

TRENDS in the Building Field

census of housing points up need for renovating and replacing older homes

The final figures from the 1950 Census of Housing, released in March, substantiate the fact that the United States has millions of obsolete, run-down dwelling units. To builders and dealers they represent an extensive market for replacement or renovation. The census takers counted 46 million dwelling units in 1950, including six million farm dwellings. Since then the total number has increased to almost 50 million.

The poor condition of houses as a whole is pointed up by the fact that only 63 per cent of all these homes have private toilets and baths. On farms, only 23 per cent have private toilets and baths, and in non-farm areas the ratio is 70 per cent.

Overcrowding is evident in 16 per cent of the units which hold 1.01 or more persons per room. The overcrowding is more prevalent in farm areas where 22 per cent are overcrowded compared with 15 per cent in non-farm areas. Overcrowding is highest in Mississippi and New Mexico where it is evident in a third of the dwelling units.

Farm houses are slightly larger and hold more people than non-farm houses. The average non-farm home has 4.6 rooms and is occupied by three persons. On farms the average is 5.1 rooms occupied by 3.6 persons.

Sixty-four per cent of the units are one-dwelling, detached structures. Multi-unit structures or dwellings combined with stores comprise the remainder. Arkansas has the highest percentage of single-family dwellings, 86 per cent compared with only 13 per cent in the District of Columbia and 33 per cent in New York.

Non-white residents occupied 9 per cent of all dwellings. In Mississippi the ratio is 42 per cent; in South Carolina, 35 per cent, and in Louisiana, 31 per cent.

Fifty-five per cent of the houses were owner-occupied in 1950, the highest percentage in history. More than 65 per cent are owner-occupied in Michigan, Minnesota, North Dakota, Utah, Washington and Oregon.

Over-all, 50 per cent of the dwelling units had central heating in 1950. In the District of Columbia, 91 per cent have central heating; New York, 82 per cent, and New Jersey, 80 per cent. In Florida only 7 per cent have central heating.

About one out of five houses standing in 1950 had been built in 1940 or later. The highest percentage of new homes were found in southern and western states. In Arizona, 47 per cent had been built between 1940 and 1950. In California and Florida the ratio of new units to the total was almost 40 per cent. In Vermont and Massachusetts less than 10 per cent had been built between 1940 and 1950.

At the time of the survey only 1.6 per cent of all dwellings in the United States were vacant, for rent, or for sale. There was a five per cent vacancy in Florida and Arizona, while Pennsylvania, Ohio, Illinois and Iowa had less than one per cent.

The median value of one-dwelling-unit structures in 1950 was \$8,400 in urban areas and \$4,900 in rural, non-farm areas. Highest median values were in the District of Columbia, \$14,500; Connecticut, \$11,900; New Jersey, \$10,400, and California, \$9,600. The lowest valuations were in Arkansas, \$4,100, and Mississippi, \$4,200.

The 1950 Census of Housing cost many millions of dollars. The facts report not only the housing picture of the nation but also of the individual states and the cities and towns therein. Builders and dealers will find the data on their communities productive of some excellent material for setting sales potentials. For copies of the Census, write the Superintendent of Documents, Washington, D. C.

FACTS FROM THE 1950 CENSUS OF HOUSING

	DWELLING UNITS						
		FARM		FARM		TOTAL	
Number of Dwelling Units (Million)			6.4		46.0		
Median Number of Rooms	4.6		5.1		4.6		
In One-Dwelling-Unit Detached Structures	59	%	96	%	64	%	
In Structures Built in 1940 or Later	22	%	15	%	21	%	
With Private Toilet and Bath Not Dilapidated	70	%	23	%	63	%	
Vacant—For Rent or Sale	1.	6 %	1.	5 %	1.	6 %	
Occupied Dwelling Units (Million)	37.	0	5.	7	42.	8	
Median Number of Persons Per Occupied Dwelling Unit	3.0		3.6		3.1		
With 1.01 or More Persons Per Room	15	%	22	%	16	%	
Occupied By Non-White	8	%	11	%	9	%	
Owner-Occupied	53	%	66	%	55	%	
With Central Heating	55	%	18	%	50	%	
Median Value of One-Dwelling Unit Structures	\$7.	354	_	_	_		

acme sliding door frames for standard 4" stud walls

completely packaged

Acme frames are manufactured only by mills dealing directly with the factory. They come completely packaged including face jamb and split jamb.



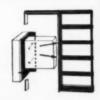


quickly assembled

Three parts only easily put together and set in rough stud wall.

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Heavy gauge angle iron stiffeners guarantee rigidity of split jamb. Strong galvanized steel track has already been installed at the mill.





nickel plated steel bearing

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The graphite core eliminates the need for lubrication and guarantees smooth, quiet operation. 100% natural rubber face provides permanent resiliency.

simple adjustment

Quick adjustment is made by means of the threaded eyebolt. The machine screw with lock washer locks hanger to the plate—cannot get out of adjustment.



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Adjustable from 18 to 37 between stiles. Made of ala crome, will not rust or tarnish



Nu-WAY PUSH GRILLE

Use alone or with No. 1 Grille. Will not rust or tarnish. Made for both 32" and 36" doors,



Nu-WAY PUSH GRILLE

"DELUXE"

This new 6" high push grille gives even more protection to screens. Will not rust or tarnish.



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NO. 3 SCREEN DOOR GRILLE

for lower section of screen doors with center cross bar fully adjustable from 16 to 29 between stiles



FITS-ALL

NO. 5 SCREEN DOOR GRILLE

Easily adjustable for wood or aluminum doors. Silvery satin



Nu-WAY "SUPER" PUSH GRILLE

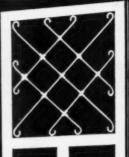
Just what you need for aluminum doors! Sturdy and ornamental, 16" high—made for 32", and 36" doors.



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WU-ART GRILLE ORNAMENTS

Colorful decorations for screen door grilles. Please order separately —ornaments not packed with grilles.



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NO. 4 SCREEN DOOR GRILLE

Designed for upper section of doors. Will adjust from 191/2 to 34 between stiles.



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selection of M-D grilles ever offered!

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NO. FS SCREEN DOOR GRILLE

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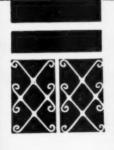
A beautiful new adjustable grille. Like all Fits All Grilles, will not trust or tarnish.



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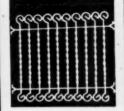
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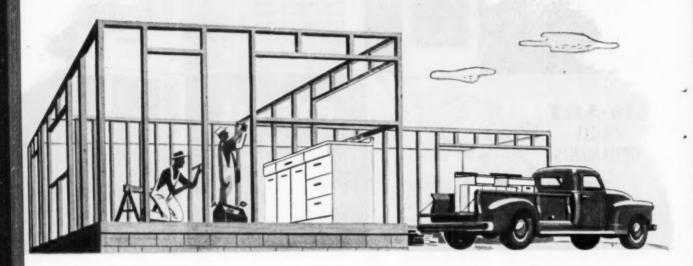
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TWO markets mean double-barreled





Heavy-gauge-steel construction-long life for customer appeal, customer satisfaction.

Cabinet sinks in sizes 42", 54", and 66". Loads of work-saving features. Sink tops of gleaming white porcelain enamel — acid—and—stain-resistant. Sound-deadened drawers glide on brass runners. Maximum storage and work

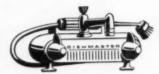
Contour styling with smooth, rounded, no-snag corners.

Adjustable, refrigerator-type shelves. Sparkling white high-baked-enamel finish—easy to clean, remains beautiful practically forever!



Murray Food Waste Disposer-the "most wanted" feature-sells itself on sight. Superquiet; continuous feed; self-cleaning design.

The sensational Dishmaster, which makes dishwashing as easy as rinsing alone! Easy to install-even easier to sell!



TAP THE PROFITABLE NEW-BUILDING MARKET

There's no doubt that modern, up-to-date kitchens sell homes! And modern kitchens by Murray offer features and value you can't beat.

With Murray's complete line, builders can select kitchen equipment that fits the home . . . stylewise, pricewise, profitwise. The rugged, formed-metal construction, contour styling and work-saving features mean customer satisfaction to the nth degree!

Check Murray today. The Builder Department can give complete information and co-operation. Just mail the coupon at the right.

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profits for builders!

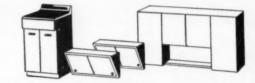


CASH IN ON THE BOOMING MODERNIZATION MARKET

More and more builders are discovering the lucrative profits in the modernization market. During the off-season building period, especially, this market is ripe for builders who can sell and install modern Murray kitchens.

No matter what size kitchen—or budget—there is a combination of modular-sized cabinets and cabinet sinks that home owners can get excited about! Beauty, utility and long life of Murray kitchens sell themselves on sight.

Investigate now! Mail the coupon at the right to the Murray Builder Department—your partner in profits.



Wall and base cabinets in every size and shape! Corner cabinets, Lazy Susans, condiment shelves, utility cabinets.

FEATURES LIKE THESE ARE SURE TO PLEASE!

Scientific design to save time and work • All-steel, welded construction • One piece, titanium porcelain enamel sink tops • "Lifetime" finish • Easy to clean—no concealed corners to catch dirt • Styled for beauty • Maximum work surface and storage space • Adjustable, refrigerator-type shelves • Sound-deadened drawers and doors

Home Appliance Division, Sales Offices, Detroit 11, Michigan

ONEWS

NAHB Maps Membership Drive

Plans for a big 1953 membership drive and for national action to insure a continued strong market in both new home construction and rehabilitation of old housing were laid down by the Executive Committee and Regional Vice Presidents' Council of the National Association of Home Builders at their recent Washington meetings.

At this year's first Washington conference, convened in March by NAHB President Emanuel M. Spiegel, the Association's 17-member Executive Committee mapped out a 1953 program geared to construction of at least 1,000,000 new homes. The committee went on record for revision of government housing policies that are blocking full production, notably the Federal Housing Administration's excessive down payment requirements and the unrealistic 4 per cent interest rate on GI home loans guaranteed by the Veterans Administration.

"Trade-In" Houses Discussed

Additional Federal financing aids also were recommended to open up the vast potential market in "trade-in" housing, urban redevelopment and slum rehabilitation. G. Yates Cook, promoter of the Baltimore Slum Clearance Plan and recently named head of NAHB's new Housing Rehabilitation Department, outlined his plans for a nation-wide attack on slums.

The Executive Committee also approved plans set up by the Regional Vice Presidents' Council, meeting simultaneously, for expanded field services to NAHB members and for an all-out membership drive in 1953.

The membership drive will be a year-long "Every Member Get In There And Pitch" campaign. All 17 of the Regional Vice Presidents attending the two-day session were enthusiastic over the prospects of the drive. A kit of working tools and suggestions for local membership campaigns has been sent out from NAHB's National Headquarters and awards will be made at the 1954 Convention for the largest percentage increases and the largest number of

new members recruited by the various local associations. Special recognition also will be given at the 1954 Convention to new Associations formed during the 1953 drive.

NAHB Membership Rise Seen

V. O. "Bud" Stringfellow, of Seattle, Washington, Chairman of the Council, and San Antonio. Texas Builder E. J. Burke, Jr., Chairman of the Membership Committee, agreed that the campaign should go a long way toward bringing into the NAHB fold a large percentage of the nonmember builders who now sit on the sidelines. They expressed confidence that the drive would produce the biggest membership rise ever achieved in any past year.

Stringfellow also emphasized the importance of close cooperation between the Regional Vice Presidents and the local associations in their regions.

At both the Council and Executive Committee meetings, officials of the NAHB Washington staff outlined the services and facilities that the National Headquarters can offer to both individual members and local Associations, and they urged fuller use of those services.



NAHB Regional Vice Presidents confer with staff officials on 1953 plans for expanding members' services



Members of the NAHB Executive Committee discuss 1953 policies with staff officials

Promote Home Week, Manufacturers Urged

National Home Week, which mushroomed from an exhibition of 646 model homes in 1948 to 12,000 model homes in 150 cities in 1952, has become the industry's outstanding agent of good will and sales according to C. J. Wageman, publisher of American Builder. Wageman spoke to manufacturers of building products and equipment at a one day meeting called by the National Association of Home Builders in Chicago.

The purpose of the meeting was to let the manufacturers and their advertising representatives see what was going on in the National Home Week program and to urge them to tie their own product advertising into the Week, particularly during August and September. Because of the vital role manufacturers play in the over-all industry picture, it is felt their active participation in the Week at both local and national levels would do much to further its scope.

The Week was originated in 1948 by American Builder Editor, Edward G. Gavin, and sponsored by the National Association of Home Builders. (American Builder has recently recommended to NAHB that the Week be extended to a month and be called National Home Month, see On & Off the Record page 4 this issue.)

On hand to testify to the potentials of the Week in addition to Wageman were Lawrence W. Nelson, executive vice president of the Minneapolis Home Builders Association and Martin C. Huggett, executive vice president, Chicago Metropolitan Home Builders Association to report on their Associations' successful observances: Edward C. Tukev of the Chicago Tribune; Dean Jenks and Harold Green of General Electric, and Marshall Adams and Mike Ondo of Youngstown Kitchens, Mullins Manufacturing Corporation, representing manufacturers who are already active participants.

Walton Onslow, director of National Home Week for the National Association of Home Builders, conducted the conference, assisted by Conrad P. Harness and Paul Van Auken, National Association staff.



Saules TIME...LABOR...AND DOLLARS!

This is how easy it is to install the new Eljer exposed series deck fittings... tighten two locknuts and make supply connections. This saves time... labor... and dollars.

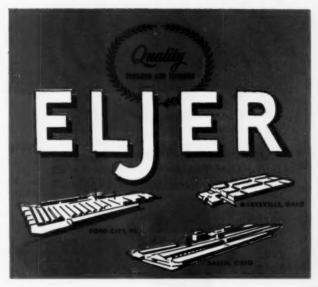
This new faucet will fit any deck type sink or counter installation with supply inlets on 8" centers. The shanks are tapped ½" I.P.S. female.

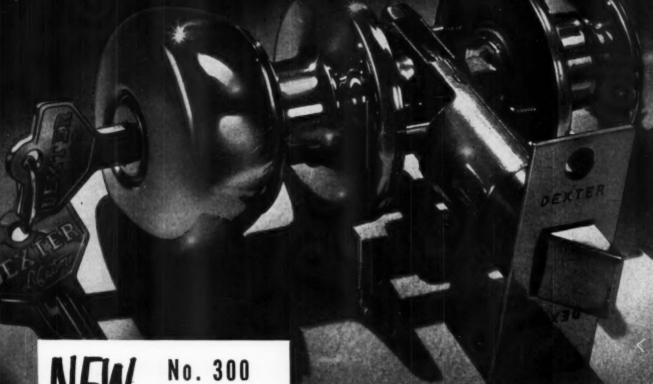
Featuring Eljer's No. 1 renewable unit and pat-

Featuring Eljer's No. I renewable unit and patented swivel disc stem, all wearing parts are quickly and easily renewable. The new massive, cast spout has generous elevation for maximum clearance and integral checks to prevent spout striking backsplash. The removable soap dish is highly polished stainless steel. Spray unit is anti-siphon to meet all plumbing codes.

Another Eljer plus is the rubber seals furnished for use between the fitting and the top to prevent surface water from running down sink or top drills . . . keeps undersink compartment dry.

Your nearest Eljer Distributor will be pleased to show you how easily the deck type double sink faucet can be installed. See it today or write Eljer Co., Box 192, Ford City, Pa., for more information.





NEW No. 300 KEY-IN-KNOB

Here is a feature-packed sales leader of the Dexter Line. Top quality, backed by the famed Dexter Lifetime Guarantee — at a popular price! Available Master Keyed at slight additional cost. May be ordered Master Keyed or Keyed alike with any other Dexter Disc Tumbler Sets. Write for a Dexter factory representative to call on you.



INSTALLATION - 15/16" IS LARGEST HOLE.



KNOBS REINFORCED WITH STEEL.



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Taking the "Bust" Out of "Boom and Bust"

by John M. Dickerman, Executive Director, National Association of Home Builders

Modernization of our home financing methods is long overdue. While the builders of America are now providing the latest in beautifully equipped kitchens, carefully designed living accommodations and even air conditioning, the financing methods available through the FHA and lending institutions are as much as ten years behind the times. It is no wonder that many middle and lower income families who need and could pay for a home out of their current income, find it very difficult to do so.

The \$6,000 home of a decade ago was purchased by the same type of family as today buys the 12 to 15,000



John M. Dickerman

dollar home. Increased cost of the home as well as the increased average income of our families reflects the decline in the purchasing value of the dollar.

But look at the difference in the down payment required, for example, under FHA: Ten years ago a \$6,000 house could be bought for ten percent or \$600 down. Today, under FHA. the down payment on a \$12,000 house is \$2,400 or four times as much; the down payment on a \$15,000 house is \$3,000. The average modest income family finds it almost impossible to save these amounts for a down payment in the face of high taxes and mounting family costs. After careful study a realistic, graduated scale of down payments has been developed by the National Association of Home Builders and is now being urged upon the Congress and the new Administration.

In brief, this would provide a new sliding scale of down payments under which the maximum mortgage would be 95 per cent of the first \$8,000 of valuation, plus 80 per cent of the next \$7,000 and 60 per cent of the following \$5,000; the FHA mortgage limit

would be raised from the present maximum of \$16,000 to \$20,000 on single family homes.

Modernizes FHA Financing

On homes valued above \$20,000 and up to \$25,000 the maximum mortgage would be a flat 80 per cent. This would modernize our present outdated FHA financing pattern. It would permit a \$1,200 down payment on a \$12,000 home, and an \$1,800 down payment on a \$15,000 home. It would allow more of our people to own their little piece of America.

In addition, the National Association of Home Builders is advocating certain other changes in Federal laws which will enable this industry to continue to maintain an annual production of more than one million new homes per year and to rehabilitate each year approximately 750,000 older units, which are structurally sound but in need of modernization and repair. Thus, by encouraging private lenders to make an adequate flow of capital available for the needs of the "mass market" for both new homes and modernization of existing structures, the home building industry will continue to perform its role as a major segment of the American economy

Last year's output of homes accounted directly for over \$11 billion of National production, plus another \$234 billion indirectly in land and development activities, home furnishings, household equipment and the like. The existing inventory of 43.000.000 non-farm homes represents \$300 billion, almost one-quarter of the estimated total wealth of the nation. These figures demonstrate how important to our national well being and prosperity is a continued high volume of new homes and the maintenance of our existing inventory.

Other Steps Necessary

1. Mortgage interest rates should be adjusted to reflect current market conditions. The GI Home Loan Pro-(Continued on page 30)

M. C. Huggett Dies; Led Chicago Builders Since 1944

Martin Charles Huggett, executive vice president of the Chicago Metropolitan Home Builders Association since 1944, died of a heart attack at his home in Evanston, Ill., March 27.

Born in 1876 in Bellevue, Mich., Mr. Huggett was educated at the University of Michigan and received an



M. C. Huggett

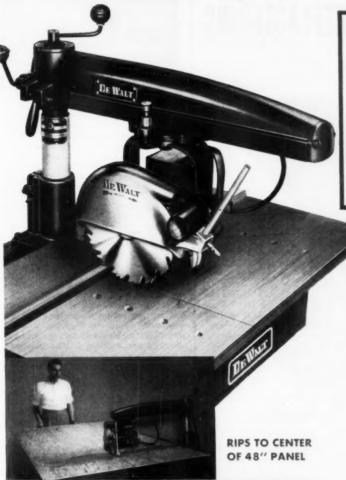
L.L.B. degree from Washington University in 1901. However, his first love was architecture and he never practiced law. Self-educated in architecture and allied skills, for many years Mr. Huggett maintained an architectural practice in Grand Rapids, Mich. and in Chicago, where he moved in 1912.

He became associated with the Celotex Corporation and traveled extensively for the company in Europe. He also worked with the Federal Housing Administration, and became head of the Chicago builders' group when it was a small organization occupying a two room suite. Under Mr. Huggett's leadership, the membership tripled, and in 1948 the association established the home building center in the Hotel Sherman, which has since become known as a model of its kind.

A much loved figure, Mr. Huggett was active in public affairs, having served the American Red Cross as a chapter director, the Anti-Tuberculosis Society, and on various building code committees.

He is survived by his widow. Irene, and a son and two daughters, John Martin, vice president of Bond and Starr advertising agency of Pittsburgh. Mrs. Robert N. Moore of Decatur, Ill. and Mrs. William W. Irvin of Grand Rapids, Mich.

Here's your BIGGEST VALUE in power saws today...a portable, big-capacity **DeWalt** for only \$229 delivered!



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2 New Models for Small Builders

VALUE NO. I

Model MBC DE WALT 9" Saw Only \$229 Delivered

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Model GWF DE WALT 10" Saw Only \$348 Delivered

Today...your best bet to reduce job costs and make bigger profits is a new portable DE WALT®...especially designed for small builders...priced low enough to pay for itself on the first house it helps build with savings these ways:

Big Capacity...new 9" saw cuts 2½" deep, 10" saw cuts 3" deep; both rip to center of 48" wide panels to give you ample capacity for house jobs.

Save Handling...put DE WALT alongside the lumber pile and pre-cut all your framing from a planned cutting list.

Save Marking...lay out one piece, set up your DE WALT and easily duplicate all cuts from ONE marking.

Save Fitting...DE WALT pre-cuts perfectly the first time, saves the added cost of fitting.

Save Material...DE WALT cuts from above, easily follows line marks for perfect work and eliminates spoilage; re-works odd sizes into usable pieces.

Save Millwork Cost... DE WALT shapes, dadoes, etc., turns out millwork on the job... no more mill costs.

Save Repair Costs...direct drive DE WALT motor is grease-sealed for life...no brushes, no repairs to worry about.

Double Use... after framing carry DE WALT inside to "build in" those cozy extras that help sell houses.

Visit your nearby DE WALT dealer and pick up a low-cost DE WALT for your next job. It's easy to operate...easy to move around. And you get low-cost DE WALT PERFORMANCE that produces a better house for less money ... more profit to you! Write for complete DE WALT catalog.

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UPSON Kuver-Krak

PANELS

Many homeowners are reluctant to remodel because they dread the messy ordeal of replastering. Tell them Upson Kuver-Krak Panels are applied over old plaster and a profitable job is yours. Profitable because Upson Kuver-Krak Panels are especially easy to handle and apply. There are no nailheads to chalk or tape: Upson Kuver-Krak Panels are anchored from the back with invisible "floating fasteners." There are no kickbacks, either: Upson Kuver-Krak Panels are permanently crackproof. What's more, you'll find that the beauty of the finished job will cause many a satisfied homeowner to recommend you to his friends.

for state of	THE UPSON COMPANY, 915 Upson Point, Leckport, N.Y. Please send me booklet and full information on Upson Kuver-Krak Panels. Name				
	Name of Firm				
	Street Address				
	City	State			

New Open Beam Ceiling Construction Method Proves Instant Success



A new method of open beam ceiling construction has been designed and developed by the Scholz Construction Corporation and used with remarkable success in "Lincolnshire," a new community of contemporary homes in Toledo, Ohio. Upson Strong-Bilt Panels (waterproofed), 8 x 18-foot size, are used above 4 x 6-foot roof rafters; rafters are on 4-foot centers. 2 x 2-inch x 8-foot furring strips are applied to the upper side of the Upson Panels with Upson No. 2 floating fasteners on 8-inch centers, staggered. The furring strips are applied across the 8-foot dimension of the panel on 8-inch centers. The unit thus formed is nailed on top of the rafters through the furring strips. Aluminum foil insulation sheets are laid over the furring strips forming an air space; the Upson Panels act as conductive insulation and the aluminum foil as reflective insulation. Cedar shingles are nailed directly to the furring strips; if asphalt shingles are used, 1/4-inch waterproof plywood is nailed to the furring strips and the shingles are applied to the plywood.



The Upson Panels overhang the exterior walls three feet forming the soffit. Since the Upson Panels are waterproofed they are left exposed; they require no paint and can be washed clean of finger marks that result from handling.

Mr. Donald J. Sholz, president of the company, reports that 43 "Lincolnshire" homes were sold in the first nine days. Currently, a house a day is being built but production is already sold out four months ahead.

Retirement Couples Form Growing Home Market

A recent survey, reported by The Upson Co., reveals that the average retirement age couple wants a two-bedroom, one-floor home on a large lot. The survey also shows that more than half the couples will have \$3,000 or more in cash by the time they reach 65, and expect an income of \$200 or more per month.

(Advertisement)



Dealer's Viewpoint

H. R. NORTHUP. Executive Vice President. National Retail Lumber Dealers Association

Controls and Shortages Relieved, Construction Looks Ahead

"For the first time in more than 10 years, the public can plan to put up a new home or other building without having to worry about either materials shortages or government controls."

That statement was the keynote of the latest news release which was sent to the 1,100 members of NRLDA's Minute Man Committee for release to their local newspapers and radio stations. As might be expected, the release has been widely published.

It is a factual statement because since 1942 the construction industry had been hampered either by shortages or controls or both. When controls were eliminated following the end of World War II, many materials were in short supply, and production had not fully caught up with demand when controls were re-imposed in 1950.

The disappearance of the twin headaches was good news for dealers and builders as well as the public, and it was accompanied, so far as dealers are concerned, by a ground swell of interest in better merchandising.

During the 10-year period, dealers couldn't concentrate on improvement of merchandising techniques. Too much of their time had to be spent on locating supplies of scarce materials and on coping with a host of changing regulations.

Now things are different. Dealers everywhere are taking another look at their advertising, their point of sale displays, their employee training and their merchandising methods in general.

NRLDA is studying the whole subject in an effort to determine how it can effectively aid its members in this field. A preliminary step was taken recently when a group of midwest dealers met informally to consider the development of a Merchandising Calendar for retail lumber dealers—in other words, to lay out a 52-week merchandising program which would suggest what to feature in dealer advertising and displays each week in the year.

Interest was so high and the problem so complex that members of NRLDA's Board of Directors will hold a roundtable discussion on the same subject in connection with their May meeting.

Plans also are under consideration for the development of a kit of how-to-do-it leaflets which dealers can hand to hobbyists and week-end carpenters who want to find out how to panel a basement room, build a new closet or do any one of a thousand other jobs at home in their spare time.

The availability of such a kit is calculated to increase sales of materials by making it easier for more customers to do more work. Then, too, counter salesmen will save time when they can answer customers' questions by giving them printed instructions for using materials correctly.

In addition, an NRLDA committee is going to take a careful look at advertising mat services which are offered to dealers, in the hope of making recommendations that will enable dealers to obtain the kind of mats they want and need in the most convenient and economical form.

This sudden increase of interest in better merchandising is a healthy sign. It means that dealers are preparing to demonstrate convincingly that they perform an indispensable service in their communities and that they stand ready to meet efficiently any type of demand which arises. Mattoon; Fuhrer Dickey, Fairfield; Rolla Wiggins, Carbondale; and Porter A. Wilkinson, Bethany.

Speakers included Earl H. Davis, Chicago tax consultant; G. F. Hoppe, sales promotion manager of Insulite Division, Minnesota and Ontario Paper Co.; John H. Else, legislative counsel for NRLDA, Washington; Everett Conover, Colorado Springs lecturer and business man, and Paul Harvey, ABC newscaster.

MOUNTAIN STATES

The 60th Anniversary Convention and Exhibit of the Mountain States Lumber Dealers' Association was held at the Shirley-Savoy Hotel, Denver, with a registered attendance of approximately 800. There were 65 companies exhibiting building materials and services. A feature of the event was the recognition of 14 member companies whose organization pre-dated that of the association, which was founded in August, 1892.

Convention activities included a Concatenation held by the Denver Hoo-Hoo Club, No. 74. Edward G. Gavin, editor of American Builder, and John Lyon Reid, A.I.A., San Francisco, were the principal speakers.

Annual election of officers resulted in T. H. Walker, Casper, Wyo., as president; H. H. Hast, Denver, vice president; and J. V. Smith, Denver, secretary-treasurer.

CAROLINA

Carolina Lumber & Building Supply Association held its 30th annual convention and Building Material Exposition in March at the Municipal Auditorium in Asheville, N.C. Over 100 exhibits of building materials and ideas were displayed, making it the largest array of its kind ever brought to the Southeast area. Convention speakers included Henry C. Munnerlyn, Bennettsville, S.C., president of the NRLDA: W. M. Spurrier. Charlotte, N.C., vice president of the Association, and Don A. Campbell, Lebanon, Ky., lumber dealer, past president of NRLDA, and executive vice president of the Kentucky state association.

LOUISIANA

The 33rd Annual Convention & Exhibit of the Louisiana Building Material Dealers Association took place at the Jung Hotel, New Orleans, March 18 and 19. State and national manufacturers showed over 60 displays of building materials. Speakers (Continued on page 216)

Dealer Conventions Hold Spring Spotlight

With the close of its 63rd Annual Convention the Illinois Lumber & Material Dealers' Association again made convention history. There were 5,404 registrants at the three-day meeting held in Chicago's Hotel Sherman and 166 exhibitors occupying the 204 booth spaces.

At the meeting, Paul Howard Leach, Joliet, was elected president, and Leo R. Allen, Flora, vice president. The outgoing president, W. Lindley Huff, Decatur, automatically became a member of the board of directors. New directors elected to the board included Mervin L. Backer,





Judges in the Home Design Competition which was a feature of the Modern Living Exposition in Chicago included, left to right: William J. Moreland, builder; Margaret C. Carroll, American Builder staff; Professor Harold B. McEldowney of University of Illinois School of Architecture, Chicago; Charles A. Nixon, builder, Right photo, left to right: Edward H. Mittelbusher, architect; C. E. Blomgren, builder; Raymond M. Lutgert, builder; John L. Bartolomeo, architect

250,000 Attend Chicago Home Show

Blessed by a week of generally fine weather, Chicago's eighth annual Modern Living Exposition, March 21-29, turned out to be the biggest and best of these giant home shows sponsored by the Chicago Metropolitan Home Builders Association. Attendance topped the 250,000 mark. Over 250 exhibitors filled all the available space on Navy Pier, some 275 booths in all. Two-thirds of the space was reserved by exhibitors as early as last fall.

The Exposition this year was four shows in one. The electrical industry had a large section of its own called "Welcome to Electrical Living." The gas industry called its big cooperative display, "Hall of Flame." There was a special grouping of displays on "Freezer Living." Local florists and 30 garden clubs banded together to stage an ambitious exhibit at the entrance to the Exposition.

A series of model rooms furnished by decorators and furniture stores proved to be a big attraction.

Junior Home Builders Help Out

For builders themselves, the heart of the show was the Home Seekers Market, a large information booth and builders' display area located at the center of the Exposition. Manned by members of the Junior Home Builders of Chicagoland, the purpose of this booth was to bring together prospects for new houses and builders.

The booth handled around 200 serious queries a day. It prepared for its job ahead of time by working up a card system on active members of the HBA, showing current offerings classified as to price, size, location. Names of inquiring prospects were sent to builders for follow-up, Chair-

man of this junior committee was Bruce S. Blietz.

Home Design Contest

Home design was well represented by a display of drawings and models submitted in the fifth annual Chicago Home Design Competition, a contest open to high school and vocational students as part of the Exposition activity. Over 300 entries were received, representing 29 schools. Cash prizes totaled \$1.250.

Valenti Heads Committee

Chairman of the builders' Exposition committee was Joseph E. Valenti. Grover E. McDonald was manager of the show, and Bryn A. Griffiths, executive secretary of the HBA, was active in Exposition arrangements. Laurance H. Mills is president of the Chicago builders this year.

Indiana Builders Hold Seminar



Edward G. Gavin. American Builder editor, answers questions after speaking on "Economic Trends in the Construction Industry" at the Residential Contractors Conference at Purdue University. Right is Frank S. Stubbs, faculty member, who moderated the session of the seminar sponsored by the university and Home Builders Association of Indiana

Dickerman

(Continued from page 26)

gram is suffering badly under the 4 per cent interest rate limitation.

2. Sufficient insurance authorization should be provided to FHA so that delays in home production will not be encountered when FHA insurance funds are periodically exhausted.

3. The term of all FHA and VA loans under \$12,000 should be extended to at least thirty years instead of the present 25 years. This would permit smaller monthly payments.

4. An expanded campaign for the enforcement of local building, sanitation and health codes should be undertaken. This would result in the rehabilitation and reconditioning of many thousands of sub-standard but structurally sound housing units. FHA procedures should be expanded to help the financing of this program.

5. The present Federal secondary market for loans (FNMA) should be restored to its original function as a revolving fund without increasing its authorization. This would improve the flow of funds to areas temporarily short of capital.

6. The Public Housing Program should be carefully reviewed before any further funds are committed or appropriated. Families unable to pay an economic rent should be aided by rent assistance financed by Federal and State contributions in agreed proportion, and properly supervised on a local basis. This, plus the rehabilitation of blighted residences, would do away with any excuse for public housing, with its heavy local and Federal tax drain.

7. In the interest of economy, the various Federal housing agencies functions should be carefully reviewed. Unnecessary and unused sections of Federal housing laws should be repealed. The technical aspects of VA guaranteed home loans should be transferred to FHA, thus saving money and eliminating time consuming duplicative work by overlapping agencies.

The immediate future for home buyers and home builders alike appears to be good. Builders are constantly improving their product. The demand for medium and lower cost housing remains strong. There is little prospect of an overall decline in construction costs, however, since we may anticipate a continued firmness of and upward trend in wages.

Experts are guesstimating that 1953 will see approximately one million units of new housing constructed as compared to the 1,131,000 for 1952. If the modernization of financing methods is made possible by Congress, the volume might be larger.

windows for all the world



Here's real proof AUTO-LOK alone is changing "For Sale" to "SOLD"!

This huge new plant is the result of tremendous demand for Ludman AUTO-LOK Windows. In a few short years they have forged into national dominance, because only AUTO-LOK gives homeowners everything they've ever wanted in a window with none of the disadvantages they've put up with in the past.

No wonder AUTO-LOK is the window women want most!



The "growing pains" of production schedules, which taxed old facilities to the limit, have been solved.

TODAY, Ludman is in a position to continue unexcelled research, design and craftsmanship ... and to provide production without equal.

In sale after sale when competitive chips were down,
AUTO-LOK Windows have made the difference.
They're delivered on the job completely assembled
...easy to install, no parts to lose, no adjustments
to make...quickly available from your
local dealer. See him today!

WINDOWS WOOD OR ALUMINUM Tightest Closing Windows Ever Made Seal shut like your refrigerator

LUDMAN Corporation

BOX 4541, DEPT. AB-5, MIAMI, FLORIDA

LUDMAN LEADS THE WORLD IN WINDOW ENGINEERING



BILT-WELL Twin Features:

WEATHERTIGHTNESS to save fuel and EASY OPERATION to save irritation make both BILTWELL SUPERIOR and BILTWELL CLOS-TITE the outstanding windows of each type



give you TWICE the protection against air infiltration as required by American Wood Window Institute's Specifications by Actual Tests.

And. Superiors require only 1/10th the lifting effort of most other

And, Superiors require only 1/10th the lifting effort of most other effectively weatherstripped windows. Yes,—Superior's patented Jamb-liner is the secret. This exclusive feature provides flexibility which insures both finger-tip lift and snug-fitting windows. And "Superiors" are counter-balanced with guaranteed overhead spring balances. These fine features are permanent, no adjusting or servicing. NO OTHER WINDOW IS COMPARABLE!

The Bilt-Well Line of Building Woodwork (everything for the home) is made of clear, kiln-dried Ponderosa Pine. Essentially all exterior products are toxic, water-repellent treated in accordance with National Woodwork Manufacturers Association Standards.

HERE'S A LIST OF THE BILT-WELL LINE

Superior Unit • Wood Windows • Nu-Style & Multiple-Use Cabinets • Carr-dor Garage Doors • Combination Doors • Screens & Storm Sash Basement Unit Windows • Shutters • Exterior Doors • Interior Doors • Entrances • Louvers & Gable Sash • Corner China Cabinets • Ironing Board Cabinets • Mantels • Telephone Cabinets • Stair Parts



Double Weather Stripping

Clos-tite Casements

are double weatherstripped to provide the twin features—weathertightness and ease of operation. Full \$\frac{3}{16}\$-inch clearance between beveled edge of sash and frame insures bind-free operation. Both sash and frame are weather-stripped, plus the additional insulating feature of twin glass on all sash. Cadmium finish (weatherproofed) hardware includes Extension Hinges (for easy cleaning) and a quiet, smooth Crank-type Operator. Locking handle is bronze plated.

manufactured by

CARR, ADAMS & COLLIER CO.

Dubuque, Iowa



Everyone wants two bathrooms!



The Briggs name means QUALITY to millions of readers of leading national magazines. Through advertisements like this one, they have learned about famous Briggs colors. Briggs' uniform acid-resistance and many other features that make Briggs Beautyware the choice of smart home owners.



Briggs brass fittings meet the same high requirements as Briggs Beautyware bathlubs, lavatories and closets. They are of excellent design, engineered and built for long, dependable service. Always specify Briggs fittings with Briggs Beautyware fixtures.



Sell homes faster with two bathrooms of

BRIGGS Beautyware

Every new home salesman knows that a tough prospect will often sign on the dotted line after seeing a single feature that happens to catch his fancy. And it's well known that they all go for two bathrooms of Briggs Beautyware in gorgeous pastel colors.

With ultra-modern, smooth flowing lines, Briggs Beautyware fixtures have eye-catching appeal that stops the customer at the very first glance. And the second Briggs bathroom more than doubles that appeal.

Your reputation can grow with Briggs Beautyware, too. Sturdy and dependable Briggs fixtures have been making satisfied customers for years and years—and keeping them! Built to last and look new longer, Briggs Beautyware is thoroughly acid-resistant. Colors never fade. Any home owner will be proud to have visitors see his Briggs Beautyware bathrooms—even after years of use.

In large or small homes, specify two bathrooms of Briggs Beautyware in color at every opportunity.

BRIGGS MANUFACTURING COMPANY • 3001 MILLER AVENUE • DETROIT 11, MICHIGAN

CONCURE MICH DISPLAY BOARD

Beautiful Die Cast Knobs with Brass or Bronze Backplates

a fast-selling addition to the NATIONAL LOCK profit line

- attractive with all
types of furnishings
- selection of sizes and
finishes from open stock
- ready for shipment
- order from your jobber

For customers who demand the finest, the new N-60 Display Board offers a splendid selection of Concave Knobs with gracious bevel-edge styling, high-accent finishes and smooth comfortable feel. Available with equally attractive matching backplates. • Choice of Bright Brass, Dull Brass, Dull Bronze, Bright Chrome and Dull Chrome finishes. Display Board, as illustrated, shows the three sizes of knobs and two sizes of backplates in Bright and Dull Brass, Dull Bronze and Bright Chrome. • Board is designed for dealer's convenience in displaying finishes most popular in his specific area. Board requires minimum counter space. Order knobs and backplates from open stock.

Part of the state of the state

11" board

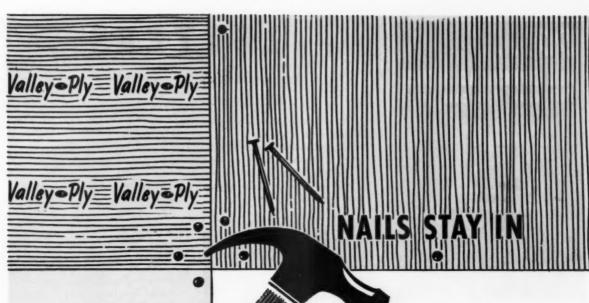
eye-appealing natural birch display board... only 11" wide...saves valuable counter space

distinctive hardware...all from] source



ROCKFORD . ILLINOIS

MERCHANT SALES DIVISION



Valley Ply

trade-marked plywood sheathing priced to replace boards

You won't be bothered by "popping" nails when you use Valley Ply. No sir! nails stay in. Every piece of veneer in Valley Ply sheathing is forced air dried in special plywood veneer kilns. There's no shrinkage . . . so no nail movement. For dependable, durable FHA approved building, make sure you get Valley Ply for wall sheathing, roof decking and subflooring.

Call your supplier today for more information.

VALLEY PLYWOOD COMPANY BOX 789

EUGENE, OREGON
Telephone 5-8491 TWX-EG 147

Western Physanded interior PANELS

for interiors, cabinets, built-ins, storage walls, partitions, ceilings and furniture. Order Western Ply when you order Valley Ply.

WESTERN VENEER COMPANY
Box 789 Eugene, Oregon
Member Douglas Fir Plywood Association



"TROUBLE SAVER" Adjustable Steel Trestles



SAFE! STRONG! ECONOMICAL!
Adjustable for Height and Width



Details of the quickly adjustable "Trouble-Saver" Steel

Builders, contractors, maintenance men and others save time, labor and material with "Trouble-Saver" Adjustable Steel Trestles. They're unequalled as a safe, sure, low-cost method of handling all overhead work under a wide variety of conditions.

Write for new catalog and complete informa-

SIZES - SPECIFICATIONS, ETC.

Size No.	Law Point	High Point	Number of Adjustments	For Working Heights		
2	16"	22"	4	71/3	to	734'
3	2'	3'	5		to	9"
31/2	21/2"	31/2"	5	81/2	to	91/2
4	3'	414	6	9	to	10%
	4'	6"	9	10	to	12'
	51/2"	8"	11	111/2	to	14'
10	61/2	10'	15	121/2	to	16"
12	7'	12'	19	13	to	18"

THE STEEL SCAFFOLDING CO., INC. Dept. A8

856 Humboldt St., Brooklyn 22, New York Telephone: Evergreen 9-2802

LETTERS

ad coupon pulls after 35 years

Sir: American Builder advertising still pulls after 35 years!

Seldom, I doubt, has the longtime effectiveness of publication advertising been better illustrated than by the attached coupon from our ad in your May, 1918 issue.



Almost as amazing is the fact that both the publication and the advertiser are still going strong!

> R. W. Louden, Vice President, The Louden Machinery Co., Fairfield, Iowa

► In lieu of booklet, Louden sent latest literature on this garage door track and hangers, and the name of the Lake City dealer where Gabriel could personally examine this product. —The Editor

builders need business engineer

Sir: Enclosed is one of many letters we have received about "how to organize your business." (American Builder Feb., Mar., and May '53) It seems that of the thousands of typical home builders throughout the nation, most want to know how to better organize and/or to expand their business. It is a tragedy that there is really no source where they can get, in a single package, sufficient over-all information regarding this subject.

The NAHB Manual of some 50 forms and procedures seems to be the nearest practical volume that is in the making to fulfill this need. Some day there will, no doubt, be some business engineering firm to

assist builders with reorganizing their business to conform to patterns similar to the Manual. In the meantime, I hope you will keep encouraging NAHB to further promote the manual idea.

Iohn R. Worthman, Builder, Fort Wayne 6, Indiana

Letter Worthman enclosed:

Sir: In the February, 1953 issue of American Builder we found an article of great interest to us, "Do You Know How to Organize Your Business?"

We are custom builders in the process of expanding; therefore, we would like very much to obtain the four Forms mentioned in the article, namely: (1) An Initial Building Questionnaire; (2) Preliminary Agreement between Builder and Client; (3) A Home Trade-In Guarantee; and (4) A long form which functions three ways, as Comprehensive Estimate Summary, Outline Specification, and Progress and Supply Check List.

M. Douglass Couch, Contractor, Palo Alto, Calif.

This reader wrote to us:

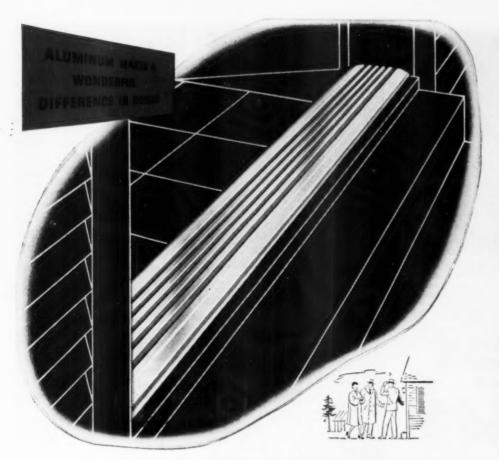
Sir: Your publication is presenting a series of stories dealing with the subject of small volume builders. The first article has already appeared and our Small Volume and Custom Builders Committee is so enthusiastic about this series that they have asked me to write you to ascertain whether or not our Institute could get advance copies of the other articles which have not yet appeared.

We are developing a special program for small volume and custom builders and if we could get this series of articles we think it would be extremely helpful in developing this program.

> Hayward S. Cleveland. Long Island Home Builders Institute, Inc.

where can I buy newer building materials?

Sir: Being grounded by the flu, I have been spending part of my time looking up items in your magazine (Continued on page 36)





Aluminum chimneys are light in weight, easily fabricated and erected. Reflect heat and resist corrosion.



Aluminum siding is easy to work with and install. Won't rot, warp, shrink, swell or crack. Fire resistant,



Aluminum ductwork is easy to handle and install. Won't rust, is a natural insulator, minimizes heat loss.

ALUMINUM THRESHOLDS HELP YOU BUILD BETTER, SELL QUICKER!

Aluminum is the modern building material with a "two-way" advantage that benefits both builder and buyer. For example—lustrous, attractive aluminum thresholds are the first assurance of quality design in entering any building. They are economical in initial cost, require no maintenance and are available in a variety of Reynolds designs that provide a type for every entrance or between rooms application—including pivot door installations.

Furthermore, aluminum's strength, light weight, ease of fabrication with regular carpenter tools, long life, avail-

ability and other advantages—both in special designs and standard products—help you build better homes. These homes sell easier and faster because buyers quickly recognize that they are getting more for their money.

Remember—for help on your building material problems, call your nearby Reynolds Architectural Distributor listed under "Aluminum" in the classified telephone directory. For more information on the many uses and advantages of architectural aluminum in home construction, write Reynolds Metals Company, 2530 South Third St., Louisville 1, Kentucky.



Aluminum combination doors are rustfree, rotproof, attractive, convenient. A mark of quality in modern homes.



Aluminum hardware's lustrous natural color in a wide range of finishes matches all decorative schemes.

Send for free Architectural Aluminum catalog. For quick reference, see catalog $\frac{5a}{Ra}$ in Sweet's Architectural File.

Be sure to see "Mister Peepers" every Sunday night, 7:30 EST, NBC-TV; hear "Fibber McGee and Molly" every Tuesday night, 9:30 EST & PST, NBC.

REYNOLDS



ALUMINUM

MODERN DESIGN HAS ALUMINUM IN MIND



ANCHOR WINDOW - Pella Windows are completely assembled when they arrive. Just set the unit in the opening and anchor it firmly at the head and sill. Flange screws are furnished for this purpose.

FOR QUICKER, EASIER INSTALLATION USE

CASEMENT WINDOWS

Installation costs are cut to a minimum because Pella Casement Windows are completely assembled and pre-fitted at the factory. Pella Casements, in modular dimensions, fit right into specified rough openings. Welded, rust-resistant, wood-lined steel inner frame is fitted with 1-3/4" wood sash. All Pella Casements are equipped with inconspicuous, convenient Rolscreens (that roll up and down like window shades), Dual Glaz-

window

ing and weatherstripping. All hardware included. More Thermopane sizes available for Pella than any other wood casement window.

Write 70day for the Pella Installation Instructions and full size Casement Details.

ROLSCREEN COMPANY, Dept. E-23, Pella, lowa Without obligation, send me "PELLA CASEMENT Installation Instructions in Full Size Casement Details No. 1050M.

STATE

WINDOWS . ROLSCREENS . VENETIAN BLINDS . FOLDING DOORS THE STATE WAS BOUNDED THE STATE WHEN THE STATE



attach metal fins at jambs. The the edge of the steel frame. The flat surface of the fin is nailed to sheathing. Exterior trim can be applied.



ATTACH INSIDE FINS - To com plete the installation, apply the inside metal fins at head, sill and jambs. Fins fit under the lip of the steel frame and are nailed to the studding. This insures a tight weatherseal all the way around the

letters . . .

(Continued from page 34)

on which I would like further information. (Jan. '53 New Products) There is quite a list enclosed and believe me it is not idle curiosity that prompts my wanting them. I have been a reader of your magazine since 1913 and, since I have the time. I am going to tell you some of the troubles we have keeping up with the newer building materials, although I don't know what you can do to help the situation.

Small builders overlooked

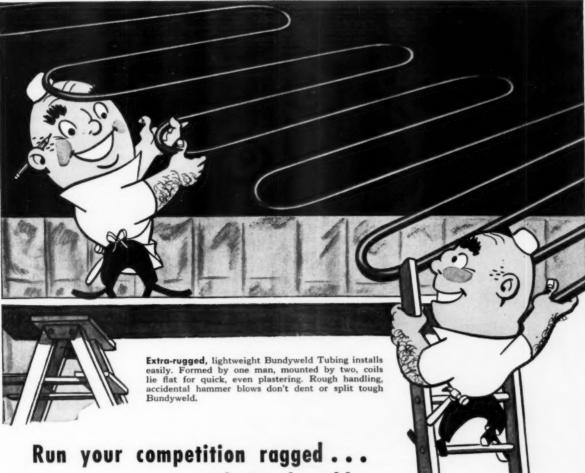
First, this is a small town of about 600. 18 miles from a city of 65,000 population which boasts of having wholesale dealers for everythingbut many, many of the newer building items are not available either at the wholesale or retail level. It seems manufacturers are so busy trying to sell their products to the large housing projects that they overlook the builder of five or six houses. After our buyers read the manufacturers' ads in home magazines and decide they want these new products in their new homes, we can't find a supplier unless we want to buy by the carload. In other words, no supply at retail level. For example, take a product like the magnetic cupboard door latch we have been using for three years-we have to go out of town for it. We have a large hardware store here, business ranges from \$75,000 to \$100,000 per year. The owner buys regularly from five wholesale firms and not one of them handles this latch. Not one of them handles tension screens, and I could go on down quite a list.

Lumber dealer no help

In the lumber business it is the same way. For example, a short time ago I had a job which called for Weldtex. Dealer claimed he could not find it and did not believe there was such a thing. So I ran it down myself in another city. More recently I wanted four sheets of Novoply in a hurry. Now there are two wholesale plywood firms in my nearby city but they claim not to handle it, and out of ten retailers contacted, most did not know what it was and only one had a source of supply. Said we could get it from Chicago (local freight) in three

(Continued on page 38)

ADDRESS



with Bundyweld

Ceiling Radiant Heating



Key to Low Cost

Bundyweld is the only tubing double-walled from a single strip, copper-brazed through 360° of wall contact. It's leakproof, thinner-walled, yet stronger. It transmits heat quickly, has high bursting strength. It saves on material costs and installation time. Standard 20' lengths of

Bundyweld are easily formed into coils in shop or on job site. Expanded ends (furnished when specified) are quickly soldered into leakproof union. Joined, lightweight coils are easily mounted onto ceiling, quickly plastered over.

You know, of course, that it's become harder and harder to offer a feature that your competition doesn't!

Now, you can run that competition ragged. Now, you can sell houses with a dis-tinctive feature that's both dramatic and sound. It's Bundyweld Ceiling Radiant

Millions of Better Homes & Gardens, American Home, Small Homes Guide, and House Beautiful readers have read Bundy ads. Thousands of these near-ready home buyers and builders talk with friends who live with economical Bundyweld Ceiling Radiant Heating. The story's always the same: dirt-free walls, even-temperatured comfort, new freedom from drafts and soot, no awkward radiators or registers, cleaning and redecorating postponed years. And even more.

Excited prospects see how this revolutionary system makes all others obsolete. flood us with literature requests, ask for names of local architects and builders. Many of these people are already living with and enjoying their Bundyweld Ceiling Radiant Heating. Why not send coupon for your profit-building literature today?

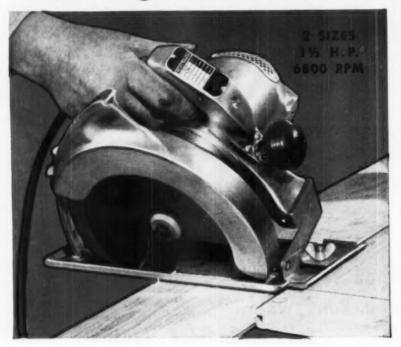
Radiant Heating Division BUNDY TUBING COMPANY Detroit 14, Michigan

SEND FOR FREE >>	Radiant Heating Division, Dept. AB-553		
LITERATURE!	Bundy Tubing Company, Detroit 14, Michigan		
	Send free 20-page nontechnical brochure explaining Radiant Heating.	Bundyweld	Ceiling
THE SUN	Send Bundy technical radiant heating pamphlet.		
IN YOUR CEILING	Name	Title	
	Company		
Bundyweld	Address		
Ceiling Radiant Heating	CityS	tate	

NEW HI-SPEED



Mitering POWER SAWS



Special Features

1 — 6800 RPM...and full-rated 1½ H.P. at the Cutting Edge are your assurance of sustained speeds for tough sawing jobs — green lumber and hard wood, or abrasive disc cutting of concrete, metal, etc. (Blades and abrasive discs available for all cutting purposes)

2 — Exclusive — Deeper Miter and Vertical cuts than other saws of same diam. blades, $6\frac{1}{2}$ " Blade miters 2" dressed lumber at 45° .

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6½" Blade 1½ H.P. 6800 RPM

\$6650

Model 825

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letters . . .

(Continued from page 36)

days. Well I can beat that by going to other cities in my state, but it means a day's work for a man and pick up.

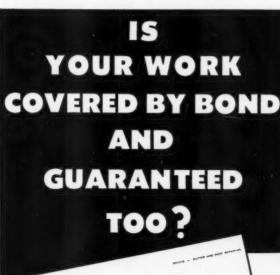
Now we come to something else: You will note I have requested information on several plastic laminates and several sliding closet doors. These are two items in increasing demand. We have a very indifferent source of supply and what we can get I do not consider to be the best from all standpoints. In forwarding my request for information to the manufacturers, please stress the fact that I would like installation directions and nearest source of supply. I want to study these items, decide which are best for us, and not wonder where we can buy them.

Installation instructions too involved

There is a point about installations too. Some installations are bevond our ability. I've been at this game since 1913 and my son grew up in it. We consider ourselves average or better mechanics but we can't do the impossible. For instance, we recently installed a plastic countertop supplied by the owner who saw it advertised in a popular magazine. The supplier said it could be bent into a cove and run up the wall and the owner insisted we do it. We doubted we could but agreed to try at his risk. After several attempts and some waste of material we gave up and sent to the factory for installing directions which said we had to heat material with a certain kind of torch and bend it over a special form which we could buy from them. In this case the source of supply was wrong, but why?

You who are reading this may not know a hammer from a saw but I've had a few minutes fun writing, and I hope you can get some of the information I want. No use any of these companies sending high pressure salesmen to me. I just want to study, compare, and learn more about their products so I can keep up-to-date and know where to get what I want when I want it. We build four to six houses a year and do a lot of modernizing.

(Name withheld by request)



Alco Waterproofing Co.

February 27th, 1952 After many years of specializing in masonry Mater many years of specializing in masonry water proofing, using various products we found Kay-Tite by far the most outstanding Gentlemen: nound hay the my far the most outstanding Results on every job where it has been used

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Our contracts cover all kinds of buildings, have been very satisfactory. residential, government and commercial. We do work on all types of masonry, inside, out. go work on an types or masonry, inside, our, side and above and below grade. All work is

side and above and below grade.
Covered by bond and guaranteed. wered by bond and guaranteed. We always recommend Kay-Tite and are most happy to attest to the dependable quality most nappy to attest to the dependable quality of your product as it has enabled us to give or your product as it has enabled a long term guarantee on all jobs.

Very sincerely yours, Alco Waterproofing Co.

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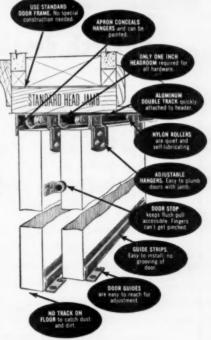




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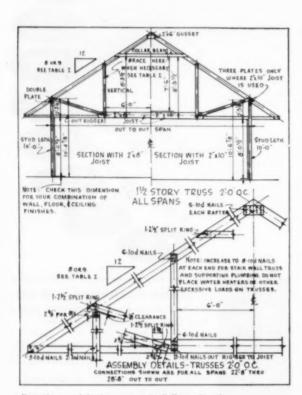
technical guide

for builders and craftsmen





research develops truss frames for 1½-story house



Data, photos, and drawings courtesy Small Homes Council, University of Illinois,

The trussed frame shown is the final result of one year's study of truss frames using FHA minimum space requirements by the Small Homes Council of the University of Illinois.

Trusses are spaced two feet on centers and are designed for a roof load of 20 pounds and a floor load of 30 pounds per square foot. Slope of roof can be either 3 or 9 in 12 depending on the span. The top chord of the trussed frame is a single continuous member, otherwise the frame would be unstable and might collapse.

Several trusses were built and tested for loading. On the basis of these tests the following recommendations are made:

 If the second floor room is a bedroom, and a plasterboad ceiling is used, the truss will be satisfactory using #1, 2x8-inch joists.

 If the space is to be used for other than a bedroom, or if the first floor ceiling is plastered, #2, 2x10-inch joists should be used.

In building these trusses, the following structural requirements should be observed. The 2x4 inch framing members used should have a rating of 1100 psi. This grade is not available in Douglas fir but is available in Southern pine. The following choices can be made:

1. To use 1100 psi Southern pine.

 To use a superior stressgrade of 2x4's, 1700 psi and 1900 psi 2x4's are available in Douglas fir.

 To use a superior stress grade in less common woods.

From the structural point of view, choice number one is the most certain since Southern pine 2x4's are graded throughout their entire length in the 1100 psi.

Drawings of cutting, assembling and erection appear

on page 42.

(Continued on page 42)

AMERICAN BUILDER

Insulation can be a White Elephant

It can clutter up a building site.

And if it rains before the building's up...!

Storage Space Available

Needs 131 Times Greater Space

Storage space at building sites, even outdoors, is so scanty, that bulky ordinary insulations are often left exposed to the weather, even to rain, before and during installation. Soon they are sopping wet.

Pilferage and where to put other materials become pressing problems. Ordinary insulation, packaged, occupies 131 times as much cubic space as equivalent multiple aluminum. Two under-the-arm cartons of multiple accordion aluminum insulate the average dwelling (providing 2000 sq. ft.); can be toted to the job on a bus; offer no storage problem. They are easily stowed in a tool bin or in a car; 10,000 sq. ft. on the back seat; 5000 sq. ft. in the luggage compartment,

Moisture destroys insulation values. Water in the interstices of a material is an excellent heat conductor. Standard thermal factors for ordinary insulations refer only to a BONE-DRY condition. Excessive moisture causes peeling paint, crumbling plaster, rotting wood.

building wall and roof spaces if metallic vapor barriers are not used to prevent excessive passage of water vapor from the warm side of the ceiling or wall space to the colder surface, where it condenses.

Excessive condensation is sometimes produced inside

With sufficient pressure differential, water vapor, a gas, will flow through any part of the surface of asphalt "vapor barriers." The surfaces of multiple accordion aluminum are impervious to water vapor. The insulation is practically non-condensation-forming, and will not absorb moisture.

The commercial form of multiple accordion aluminum is Infra Insulation, Types 6, 4 and 4 Jr. Thermal factors are given below. For a more detailed, but easily followed study of the problems of heat and vapor flow, refer to Schwartz's "Simplified Physics of Vapor and Thermal Insulation." Free copy on request.

INFRA THERMAL FACTORS. TYPE 6

Up-Heat C.089, R 11.23 = 43/s" dry rockwool
Wall-Heat C.073, R 13.69 = 55/a" dry rockwool
Down-Heat C.044, R 22.72 = 9" dry rockwool

INFRA INSULATION, INC., 525 BROADWAY, NEW YORK, N. Y.

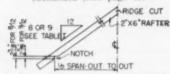
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Send Prices of Infra Insulations Send Sample

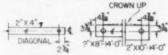
technical guide

for builders and craftsmen

(Continued from page 40)



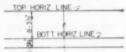
1.-Locate slope, member sizes & lengths from Table 1 for out to out span, Cut two 2x6 inch rafters as shown.



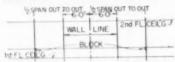
Drill one end of two diagonals for 21/4 inch split rings. Drill both ends of 14 foot joist for 2½ inch split rings.



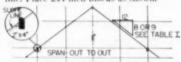
(A) Complete sub-assembly, diagonals holted to joists. (B) Jig for 24 foot truss laid out on 30x24 foot deck. This allows room for material storage and working area. When erecting walls leave one end of building open. Stack trusses outside of open end when assembled.



4. Lay out three parallel lines on deck. Increase by 2 inches if 2x10 inch joists are used.



5.- Lay out parallel lines at 6 feet and at 15 out to out span on either side of centerline. Place 2x4 inch blocks as shown.



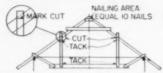
6. Lay out lines at proper slope for span from inside upper corner of blocks, Check block dimension against span.



7.—Lay rafters on chalk lines and fit against blocks. Tack to deck near blocks. Place collar beam with bottom edge on second floor ceiling line. Tack beam to rafters for joint to be drilled later.



8.-Place joist assembly at first floor ceiling line on centerline of truss. Tack diagonals to rafters with 15 inch at jig block. Diagonals nailed off center so joint may be drilled later.



9.—Place verticals in position and tack to rafters. Mark and cut for size. Place 2x6 inch gusset allowing necessary area for five nails each side of joint.



10.-Check rafter points of contact at ridge and block for tight fit and alignment with chalk lines. Drill a inch hole at intersection of collar beam and rafter, Mark bevel cut on collar beam and side of members that receive ring.

CENTERLINE INTERSECTION MARK



11.-Mark and drill & inch hole at intersection of diagonal and top chord center lines. Mark side of members that

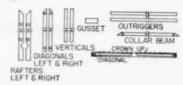


12.-Mark a horizontal plumb cut 35% inches long on rafters.

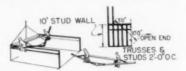


13,-Place blocks for quick assembly of

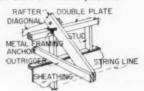
balance of trusses. Disassemble truss. using members as patterns. Cut. drill and rout members for remaining trusses. Rafters and diagonals should be cut, drilled and routed for rings in pairs, left and right.



14.—Pre-cut members for one truss.



15,-Required crew-four men. (1) Two 15.—Required crew—four men. (1) Two men carry truss, (2) Men on plates hang trusses upside down. (3) Men on plates, rotate truss to vertical position.



16.—Notch for trusses spaced 2 feet o.c., occurs over study below, Fasten to plates with metal framing anchor. Anchors are left and right. Note: After trusses are erected run string line for fascia. Cut and place outrigger, clearing bolt at joist assembly. Remove and use as pat-tern. Precut remaining outriggers and erect to string line. Outriggers must be placed before truss is subjected to load.



17.-Frame for stairwell as follows: (1) Start at closed end of building and erect trusses with verticals and diagonals facing *closed* end until stair well is reached. (2) Substitute rafter assembly for next truss (center of stair well).
(3) Erect remaining trusses with diagonals and verticals facing open end of building. (4) Place outriggers at ends of all trusses. Place plate joists on stair well trusses with members same depth as truss chord and spike together. (5) Install headers at head of stairs. Place two 2x4's at opposite end. (6) Place doubled outriggers at rafter assembly and brace diagonally with 2x4's laid flat and nailed at each intersection with 3-10d nails. (7) The 4 foot o/c spacing of stair well trusses is based on dry wall-module.

		Men	TA	BLE I 1100 psi Si	ress Grade		
Span Out To Out	Slope	Rafter	Collar Beam	Vertical	Diagonal	Outrigger	Joist
22'-8" 24'-8" 26'-8"	9/12 8/12 8/12	2"x6"x20' 2"x6"x20' 2"x6"x22'	2"x4"x8' 2"x4"x8' 2"x4"x10'*	2"x4"x7' 2"x4"x7' 2"x4"x7'*	2"x4"x6' 2"x4"x7' 2"x4"x8'	2"x4"x9' 2"x4"x10' 2"x4"x12'	2"x8"x14' 2"x8"x14' 2"x8"x14'

Grading provisions to be applied to entire length of piece.
 Brace laterally at center with 1" board or solid 2" blocking between members.
 2"x8" if 1450 psi grade; 2"x10" if 1100 psi grade. Use 2"x10" for plastered construction.
 Note: All gussets—2"x6". Knots or other defects should not occur at sections that are notched or drilled



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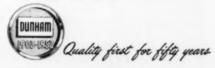
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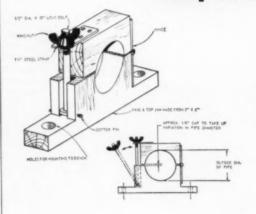
ideas for the man on the job

preventing warped jambs

To keep window jambs from getting out of alignment before plastering, a small piece of tin or metal can be nailed to the edge of the frame and the face of the plaster lath. This will prevent warped jambs when the plaster dries. A sharp hammer blow beds the metal in the soft wood. It is not necessary to remove the tin. M. D. Horton, Arapahoe, Neb.

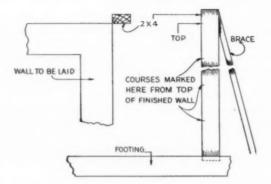


clamp for composition pipe

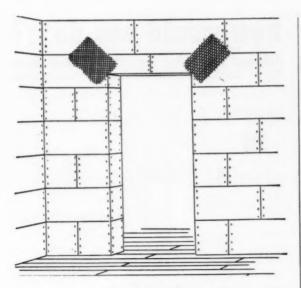


A clamp for composition pipe can be made from 2x10 scrap lumber, a strap hinge, carriage bolt and wing nut. The hole in the clamp is made slightly smaller than the pipe so that pressure can be applied.—Joseph Weislo, Indian Orchard, Mass.

faster block foundation

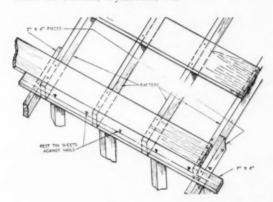


After the footing is poured determine the exact outside corners and place a straight 2x4 into the concrete about one inch and plumb. As the block is laid, mark each course on the 2x4. From then on all the work is done by line. Besides saving time, this seems to result in a truer corner.—Francis L. Blahnik, Manitowoc, Wis.



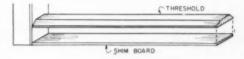
helps prevent plaster cracks

At corners of all openings, I nail a piece of metal lath about 8x12 inches over the top of the gypsum lath. -Dean W. Cornett. Wytheville. Va.



uniform overhang for tin sheets

To assure a uniform overhang of metal sheets take two short pieces of 2x4 and tack them to the first and fourth rafter as shown. Nail to the 2x4, a 1x4, which has 8-penny nails projecting about an inch higher than the board along a line as shown in the drawing. The metal sheets rest against the nails keeping the overhang uniform.-H. E. Fev. New Braunfels, Tex.



raising an old threshold

Ofter the purchase of a thick carpet creates problems in connection with the door threshold. Additional depth is required. This can be quickly obtained by raising the present threshold and inserting an extra board of the required thickness underneath as shown.—Arthur N. Nelson, Kansas City, Mo.







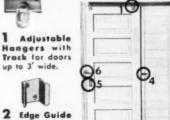
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Hinged side doors in home garages are always in the way.

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Flush Pulls Large and comfortable for easy operation. Two furnished.



key. 6 Newl STERLING LIDING DOOR LOCK. No. 1025 Rim Type Lock for sliding side doors. Not included in No. 890 Set.

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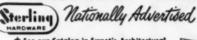
opening, yet pro-

tects fingers and

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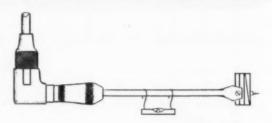
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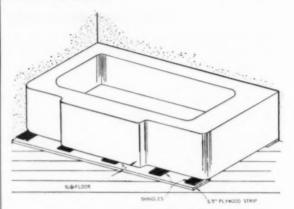
East Walpole, Mass. * New York, N. Y. * Chicago, Ill. * Shreveport, La.

how would you do it?



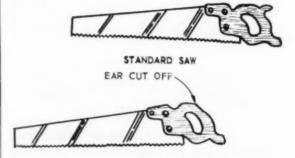
keeping a bit level

On long shank bits such as expansion bits a line level with wire loops can be placed on the bit shank so that the operator can drill a level hole.—Joseph Weislo, Indian Orchard, Mass.



preparing a tub for floor tile

Where 5/s-inch plywood is placed on the bath subfloor as an underlayment for floor tile lay a 5/s-inch piece of plywood under the tub extending out two inches. Between the tub and plywood are placed pieces of asbestos shingles. After the bath is plastered the rest of the 5/s-inch plywood is laid and the flooring tile can easily be slipped under the tub.—Erwin Whitworth, Wood River, Ill.



making a small saw easier to grip

Sawing off the top ear on saw handle makes small saws easier to grip. This method is good for small bench saws.—M. J. Hiland, Lansing, Ill.

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EXTERIOR SIDING - Use GPX GREEN in large panels or cut in strips and lapped for handsome and distinctive sidewalls. It's faster and easier to paint... needs repainting less often.



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CABINETS - GPX GREEN'S mooth surface is ideal for cabinets and built-ins. Solid cores make edges clean and sharp, easier to work.



Speed finishing and cut costs with

GPX GREEN

ALL-PURPOSE – GPX GREEN is an all-purpose paint grade plastic-faced plywood for both interior and exterior applications.

SMOOTHER — GPX GREEN offers the smoothest paint surface obtainable. It never needs sanding.

C'HECK-FREE AND CRACK-FREE — GPX GREEN can't check or crack. Phenolic resin plastic overlay is bonded to both sides of the plywood under heat and pressure.

COVERS IN ONE COAT — GPX GREEN needs no priming coat. It can be covered with one coat. A second coat produces a de luxe surface as smooth as glass.

PAINT LASTS LONGER—Paint lasts up to three times longer on GPX GREEN than on other materials.

REDUCES GRAIN RAISE — GPX GREEN'S plastic surface is a barrier to grain raise except in the most severe conditions.

MAXIMUM BENDING — GPX GREEN bends to the same short radius as regular plywood.

EASIER MILLING — Solid cores throughout make GPX GREEN easier to work. Its smooth surface eliminates feathering or chipping on edges.

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PRODUCING HOME SHOWS, ATTENDED BY
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KNOXVILLE, TENN., May 5th thru 10th Paul Waters, Director 317 Gay Street

WICHITA FALLS, TEX. May 6th thru 10th
L. A. Gifford, Director
Mesz. Holt Hotel

MONTGOMERY, ALA., May 5th thru 10th E. H. Auerbach, Chairman First National Bank Bida.

CHARLESTON, S.C., May 19th thru 24th J. Walker Owens, Chairman Chamber of Commerce Bldg.

DALLAS, TEXAS, May 2nd thru 10th H. F. VanHorn, Director "Penthouse" Staneleigh Hotel

WACO, TEXAS, May 12th thru 17th Dorothy Godfrey, Director 620 North 5th Street

NASHVILLE, TENN., May 20th thru 24th Paul Waters, Director 205 Exchange Building

TACOMA, WASHINGTON, May 22nd thru 29th

George Colouris, Director 11031/2 N. Division St.

CEDAR RAPIDS, IOWA, May 27th thru 31st Paul Waters, Director 606 Guaranty Bldg.

Summer-Fall

CHATTANOOGA, TENN., June 8th thru 15th C. B. Osborne, Chairman Electric Power Company

NEW ORLEANS, LA., Sept. 26th thru Oct. 4th H. F. VanHorn, Director Municipal Auditorium

DENVER, COLO., September 22nd thru 27th Carl Olson, Director Rocky Mountain News

SOUTH BEND, IND., September 22nd thru 27th Dorothy Godfrey, Director P.O. Box 5041, Dallas, Tex.

BILLINGS, MONT., November 3rd thru 8th Carl Olson, Director P.O. Box 744

DATES NOT ALLOTTED:

San Angelo, Tex.
Great Falls, Mont.
San Diego, Calif.
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lightweight STUDLESS partition for 24-year-old abandoned ghost





Step 1: Wood runner is fastened to the cement floor with concrete nails. Step 2: Rib lath is set into the centered groove in the wood runner and wire-tied to ceiling runners

A unique building problem, where strict attention had to be paid to loads, faced the general contractor when he converted the ghost-like Pontchartrain building in Detroit. The building abandoned in 1929 was originally planned as a swank club. Last year the 13 story shell was purchased and converted

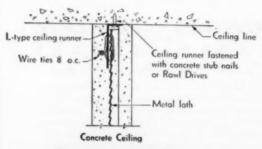
(Continued on page 54)



Step 3: Temporary bracing channels are wire-tied to the lath, removed and reused after other side is plastered



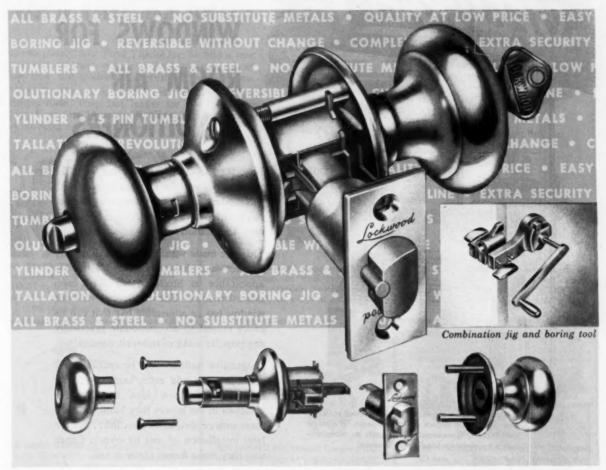
Step 4: Shallow electrical outlet is wiretied to partition. Full line of shallow electrical switches, outlets is available



CEILING ATTACHMENTS

LOCKWOOD'S New 'C' Series...

Finest Quality Locksets in the Low-Price Field



Creating a new standard of quality in the low-price field, all parts are made of solid brass or steel — no substitute metals are used. Lockwood's new 'C' Series is designed on the sound, basic engineering principles originally developed for heavier, more costly cylindrical locksets.

FIELD-TESTED: All functions in the 'C' Series have been field-tested and proved under the most severe conditions. Cylinder locks have full-size, solid brass 5-pin cylinders, assuring full protection, continuous performance and secure master-keying.

REVOLUTIONARY NEW TOOL CUTS INSTALLATION COSTS

- Reduces boring time as much as 75% below previous hand methods.
- Guarantees smooth holes in perfect alignment.
- Ensures rapid assembly of lock to door without rasping or whittling.
- All Lockwood 'C' Series sets are ready for installation on right or left hand doors without any mechanical change.



LOCKWOOD HARDWARE MANUFACTURING COMPANY

Fitchburg, Massachusetts



STEELCRAFT Designed and engineered for simplified installation of all well known air conditioners. We have checked the dimensions of the units as manufactured by nineteen leading companies. Without Air Conditioner

CASEMENT WINDOWS FOR ROOM AIR CONDITIONERS

Now for the first time, you can meet the growing demand for air conditioning with this modern idea in steel casement windows ... a window specially designed for quick, easy installation of room cooling units.

They are made with the same high quality features and have the same attractive appearance as Steelcraft standard casement windows. The lower half of this window has an adjustable bar that can be easily moved to accommodate practically any popular make of room air conditioner.

Progressive builders will be quick to see how they can add extra sales appeal by including this new idea in casement windows in the homes they build. Feature them with cooling units installed . . . or for later installation of unit by owner. Either way they make homes easier to sell.

No remodeling, no costly time consuming cutting and fitting when you specify Steel-craft all-new casement windows for room air conditioners. Available now . . . write for complete information today!

THE STEEL CRAFT
MANUFACTURING COMPANY
ROSSMOYNE, OHIO (In Greater Cincinnati)
West Coast Division, 14330 Bessemer St., Van Nuys, Calif.

Inside View

The Steetcroft Manufacturing Company, Dept. A8-553
9017 stue Ash Rd., Rossmayne, Ohio (in Greater Cincinnati)

Please send me information on the new Steetcraft Casement for air conditioning units.

Name

Title

Company

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State

NOW! Completely new FORD TRUCKS for 53

Scores of brand-new, TIME-SAVING features in the completely new Ford Trucks for '53 add a new dimension to truck economy. And you can choose from over 190 models in a greatly expanded line.

Ford Trucks are leaders in low first cost and low running costs. They last longer for low ownership costs. Now for '53, new TIME-SAVING features cut trucking costs still further.

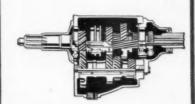


NEW 61/2-FT. PICKUP box has new rigid, clamp-tight tailgate.

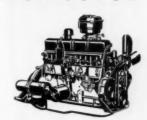


NEW "DRIVERIZED" CABS cut driver fatigue! One-piece curved windshield 55% bigger. I-REST tinted glass (extra cost). Wider seat with counter-shock seat snubber.

Deluxe cab shown in all illustrations



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NEW SHORT TURNING for better maneuverability. New wider tread gives 37° steering angle. New set-back axles shorten wheelbase, improve weight distribution without reducing capacity.



NEW SPRINGS! NEW BRAKES! Longer front and rear springs for easier ride, longer life! New self-energizing brakes for better control . . . double-cylinder type, rear, on Series 500 and 600.



NEW TIME-SAVING FEATURES THROUGHOUT! All new . . . all the way! New fast controls and new power save truck time on the road . . . New service accessibility saves truck time in the shop.



has G.V.W. rating of 14,000 lbs.

Designed for today's hauling needs!
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SAVE TIME! . SAVE MONEY! . LAST LONGER!

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A BEAUTIFUL SOLID BRASS KNOCKER ... BUT INSTEAD OF KNOCKING



Completely Non. Electrical... No Wiring

A pull on this smart-looking forged brass knocker sounds two rich, resonant chime notes throughout the home or apartment. Installed in a jiffy by simply drilling a single hole and fastening to door (knocker outside, chime inside). Adjustable to any door thickness. Always operates and requires no maintenance. The knocker is finished polished brass . . . the chime (only 61/2" x 3" x 2") ivory enamel.

Auth Door Chimes are the only original Non-Electric Door Chimes. In use in more than a million homes and apartments. A real buy from two viewpoints . . . they cost so little and they install so quickly and easily. Send for booklet and complete details. Write the Auth Electric Company, Inc., 34-20 45th Street, Long Island City 1, New York.

Other Auth Non-Electric Door Chimes

NATIONAL MODEL No. 850

..... 100

Utilizes a mechanical push button instead of knocker to sound two musical notes on a

similar non-electrical chime. Push button escutcheon plate is forged solid brass, with polished finish. Fits all doors or door frames up to 9" thick. The most inexpensive of Auth Non-Electric Door Chimes but extremely efficent with smooth-action push button and decorative escutcheon.

METROPOLITAN MODEL No. 890

Similar to the National Model in its operation by a mechanical push button, but with an additional "peephole" feature. An adjustable

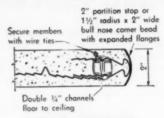
window in the chime permits the resident to observe a caller through a one-way mirror without, in turn, being observed. Space for name and apartment number on front plate. A beautiful new design, just released, and ideal for apartments.



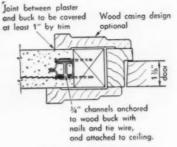
FOREMOST IN THE DESIGN AND MANUFACTURE OF ELECTRICAL SIGNALING, COMMUNICATION, TIME, AND PROTECTIVE EQUIPMENT FOR SCHOOLS, HOSPITALS, HOUSING, OFFICES, SHIPS, AND INDUSTRY.

STUDLESS partition

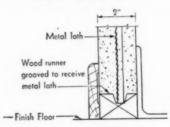
(Continued from page 50)



CASED OPENINGS



WOOD DOOR BUCK



Wood Runner

FLOOR ATTACHMENTS

Technical details of the two-inch metal lath and plaster partition

into a modern, 342 unit downtown apartment building.

The contractor had to partition off the interior floor space as efficiently as possible without overloading the existing structural frame. He chose a thin and lightweight, two-inch studless metal lath and qypsum-vermiculite partition.

By using vermiculite lightweight aggregate instead of sand, the twoinch partitions weigh only eight pounds per square foot compared to the 32 pounds for a four-inch hollow cinder block partition.

By eliminating the studs, construction was simplified. Metal lath is erected with its long dimension vertical and fastened to the ceiling

(Continued on page 58)

TRACKLE WENS

BUILDER'S TACK BOARD



PRICED LIKE ORDINARY PORCELAIN EVERLASTING BEAUTY!

SOCKO SALES
APPEAL...
EVERYBODY
CAN POSSESS
AND ENJOY!

66" SUPER-SERIES Plake-fine
TRACY STAINLESS STEEL SINK

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EXTRA PROFITS

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8¾" Model 698 only \$89.50

See Your Distributor or Call Your SKIL Factory Branch for Complete Information on the SKIL Homebuilders Saw Line!

Homebuilders Saws Bearing! Low Priced!

6", 7¼", 8¼" MODELS
A SIZE FOR EVERY CUTTING JOB!

Carpenters and Contractors! Here are the saws you asked for—7¼" and 8¼" heavy-duty, ball bearing models. Now you can have a genuine SKIL Saw to fit your exact needs at a price which gives you more value for your saw dollars than ever before!



THESE QUALITY FEATURES ARE YOURS AT NO EXTRA COST!

- Genuine heavy-duty construction . . . ball and needle roller bearings throughout
- Only one quick built-in adjustment for depth—one for bevel
- Calibrated rip fence for both right and left hand cuts
- Safety guard retracting handle for pocket cuts and abrasive disc use
- One or two-hand operation for easy control in all positions

BRIEF SPECIFICATIONS

Model No.	686	687	698
Max. Depth Cut	115/6"	23%"	21/0"
Depth Cut at 45°	17/16"	13/4"	21/8"
No-Load Speed	6000 r.p.m.	5000 r.p.m.	5600 r.p.m.
Net Weight	101/2 lb.	131/4 lb.	141/4 lb.

The only complete portable power saw line... more SKIL Saws in use than all other makes combined. You Can See the Cut with a SKIL Saw!

SKIL PORTABLE TOOLS SKIL Products are made only by SKIL Corporation formerly SKILSAW, Inc.

5033 Elston Ave., Chicago 30, III. Factory Branches in 34 Principal Cities In Canada: Skiltools, Ltd. 3601 Dundas Street West, Toronto 9, Ontario



10 EXTRA-HEAVY-DUTY MODELS AVAILABLE IN COMPLETE SIZE RANGE



STUDLESS partition

(Continued from page 54)

floor. Ordinarily the standard length of lath establishes the height of this partition at eight feet plus four inches for ceiling runners and base. In this installation, standard eightfoot lengths of lath were a few inches short. A sheet of regular 35-inch rib lath was cut lengthwise and bent at the rib so that it formed an inverted L at the ceiling, thus forming a strong ceiling runner and also providing the extra inches. Wood floor runners were used in the Pont-

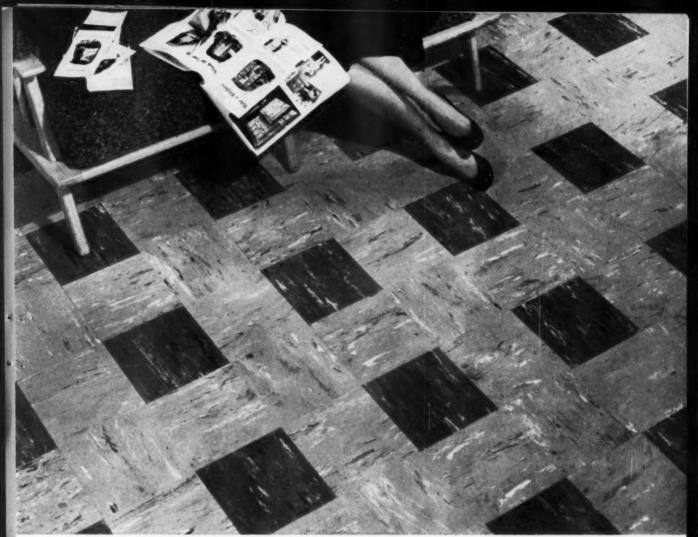


Step 5: Scratch coat of plaster is applied and allowed to set and partially dry, Temporary bracing gives rigidity to the lath while it is being plastered



Step 6: Braces are removed to permit plastering to a thickness of two inches. Finish coat is applied and floated smooth chartrain building, but the partition is easily built with a metal base.

Temporary bracing is used on one side of the partition while the other side receives the scratch and brown coat of plaster. The bracing is then removed and plaster applied on this side so that the total thickness of the partition is only two inches. The cost of temporary bracing is more than offset by the material and labor saved by eliminating the channel





WHAT! Modern plastic tile flooring in my low-budget homes?

YES! MATICO ARISTOFLEX IN LOW-COST STANDARD GAUGE

Here's a real tonic for new home sales! Aristoflex vinyl-plastic flooring not only serves as a powerful PLUS selling aid with the vinyl-minded buying public . . . but keeps your budget in line, too.

And these are the reasons. In standard-gauge thickness it's comparable in price to grease-proof asphalt tile . . . in beauty and durability, it's a real eye-opener to prospective home buyers, as only modern vinyl-plastic can be. The advantages are many. Since Aristoflex is vinyl-plastic from top to bottom (no felt backing!) it can be used on, above or below grade. The smooth, non-porous surface resists acids, alkalis, greases and fire. The radiant colors and marbleization go clear through each tile. And from the builder's standpoint, Aristoflex saves labor costs, because it lays in easily, requires less handling by the mechanic. Also available in ½8" thickness. Look into MATICO ARISTOFLEX today. Write for full details.

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TILE FLUORING

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BEAUTY, PROTECTION AND ADDED SALABILITY

Many architects, designers and builders are combining the beauty and protective properties of Rez—clear and color-toned—to add distinction and sales appeal to their contemporary homes. Here are some suggested areas of application—interior and exterior:

Typical contemporary home, designed for functional living. Bernoudy-Mutrux, Architects. See copy below for key to numbered references.

0

Closet doors and panels take on a soft beauty when such woods as birch are treated with clear Rez, anded down with very fine sandpaper, then finished with a coat of "hand-rubbed-effect" varnish.

2

Wood-faced walls in guest rooms can be very effective if they are of redwood and finished with Redwood Rezto give them the rugged, ruddy color of the California redwoods.

8

Entire panels or wall sections of knotty pine can be given a soft glow if sanded thoroughly, then given one coat of clear Rez (brushed on), one coat of White Rez (brushed on and then wiped off with soft cloth to desired depth), one coat dull varnish.

0

Bookcases and similar small-area inbuilt construction can present a pleasing contrast of decorative color if finished in either Driftwood or Sage Rez. Color values can be regulated by controlling penetration depth.

6

Exterior areas, finished in color-toned Rez, take on the rich colors and tones of the Northwest forests, the desert, the seashore, the prairie. These beautiful tones have lasting values because Rez becomes part of the wood itself—penetrates and seals the pores. This affords protection against sun, rain, snow, ice, discoloration, fading and streaking.

THE REZ LINE... Clear Rez sealer and primer has a penetrating and sealing effect... White Rez for one-coat bleached effects... Redwood Rez—the rugged, ruddy color of the California redwoods... Sage Rez—a soft, dry green that captures the color of desert sagebrush... Driftwood Rez—smoky gray, with the color of bleached driftwood... Cedar Rez—warm cedar brown, colored like sherry aged in the cask... Mahogany Rez—a rich wine red, with the deep tone of saddle leather. These color tones are not to be confused with ordinary stains.

Get literature and color samples from paint, hardware or lumber dealers. Or, write MONSANTO CHEMICAL COMPANY, Merchandising Division, 1700 South Second St., St. Louis 4, Missouri. In Canada, Monsanto Canada Limited, Montreal, Toronto, Vancouver.

Laux Rez: Reg. U.S. Pat. Off.



Bernoudy - Mutrux; Architects Buy the package:

HASKO K-D DOOR UNITS

reduce costs, improve appearance, speed construction



Here's the new Hasko K-D Door Unit unassembled but ready for hanging. The door, jambs, stop, hinges (already installed), lock, nails and shingles for shimming are all in the package. You only need a hammer, level, screwdriver and nail set.



Assemble the frame by inserting the header into the notches in the other parts of the frame and nailing together. Place the assembled frame into the rough opening.



3 Shim the hinge side of the door.



4 Hang the door on the frame assembly. Install the lock mechanism and lock strike in the routed out spots. Close the door but don't remove the 5 small spacer blocks attached to the edges of the door.



5 Finish shimming the rest of the door frame and install the precut door stop.



Using the spider fasteners in the package, fasten the mitered joints of the trim material. Place the assembled trim evenly around the door frame and nail into place. Install the door knob. Use the nail set to secure the finishing job.



Step back and look at your completely hung Hasko Flush Door. The whole job can be done in less than half an hour. You have a door with all the famous Hasko qualities of endurance and beauty. You have hung a unit matched with factory precision. You have saved time, labor and money. Hasko K-D Doors are packaged and shipped in individual cartons.

HASKELITE MANUFACTURING CORP.

Grand Rapids 2, Michigan



New Service-way Provides Direct Entry From Outdoors!

THE new Heatilator® Serviceway makes a basement 100% useful. You can get things in and out without going through the house. This time and labor saving feature adds lots of value at little cost...makes homes more livable, easier to sell!



Finger-tip control! Special doubleaction spring suspension counterbalances weight of steel door.

The Service-way makes basements convenient for storage of lawnmowers, garden tools, bicycles, storm windows...all easily taken in and out when needed.

Extra wide Service way opening gives plenty of clearance for freezers, pingpong tables, hobby shop equipment. The Serviceway door is made of heavy-gauge steel, structurally reinforced...yet can be lifted by a finger! Overlapping flanges assure snug fit keep out rain, snow, wind. Slide bolts lock door securely from inside.

The Service-way adds to property values. Worth many times its low cost. See it at leading building supply dealers. Made by the makers of famous Heatilator Fireplace. Mail coupon for folder and specifications on the new Service-way.



Modern functional design. Most useful door in the house! Comes fully assembled, ready to install.

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SMALL HOUSE-



Designed by Elton Stephens, the house has 1.008 square feet plus 700 square feet in the carport. House price was \$11.000

A small house with really big ideas for storage space is this one by C. K. Dart, building contractor in Eugene, Oregon.

Bedrooms not only have capacious storage for clothing but also offer extra space for storage of bedding, hats, odds and ends. A huge pantry complements a kitchen supplied with knotty pine cabinets, and one whole side (29 feet) of the carport has been closeted off with compartments three feet deep.

Entrance closet has shelves across one end for purses and hats, as well as the usual full length shelf.

The house has a slab foundation, although Dart ex-

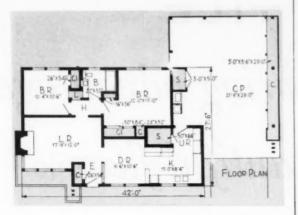


Two views of the closets in bedroom No. 1. Space above drawers is for hats and purses. Wardrobe space extends up to ceiling. Closet to right of door has shelves for bedding, with space for a tank-type vacuum cleaner on floor



Knotty pine cabinets in the kitchen. Counter tops in foreground are maple flooring highly polished. Others are Formica Covered

super storage space



cavated to get it flush with the ground. Flower pot ledge across the facade right helps to balance the large glass area of facade left. The ledge has holes for flower pots and a valance to hide the bottom of the pots.

Finish inside is plaster. Flooring is maple in living rooms, linoleum in kitchen and bathroom. Dart has used both Chromalox and Electroglas electrical heaters in this house. Briggs plumbing. Moe lighting fixtures and American Standard sink with food waste receptacle.

Roof is built-up gravel. The siding was given two coats of Stayon Shake paint, in brown. Trim is chartreuse.

The jumbo pantry makes it possible to cut shopping to a once-a-week basis





Clever three-way storage space serves hall. bathroom, and both bedrooms. Linen drawers in hall, the bathroom cabinet, and a similar space 22x33 inches serving bedroom are all cut from a total space 6 feet 8 inches in height, divided into three sections. Drawers in bottom section are 38 inches high

How to build perfect FIREPLACES



Build them ground Heatilator Fireplace units!

THE Heatilator® Fireplace unit automatically eliminates the common causes of poor draft and smoking. It simplifies and standardizes construction, cuts your supervision time, and assures smokeless, trouble-free operation. And a Heatilator Fireplace is useful as well as ornamental because it circulates heat.



Complete Fireplace unit! The Heatilator Fireplace unit is complete from floor to chimney flue, including scientifically designed firebox, throat, downdraft shelf, damper and smoke dome. It comes ready to install. Saves time and labor on the job. Decorative masonry is simply built around the compact unit.

No limit to mantel design. Hidden in the masonry, the unit puts no limit on mantel design or type of materials used.

Home-buyers want it ! The Heatilator unit's scientific design assures your customers of smokeless, trouble-free fireplace operaation. At the same time, it takes the heat usually wasted up the chimney and circulates it to every corner of the room, and even adjoining rooms. Proved in use for 26 years. These are the reasons why Heatilator Fireplaces help you sell homes faster. At building material dealers everywhere.



The Heatilator unit saves heat usually wasted up the chimney.

TILATOR FIREPLACE

Heatilator, Inc. 635 E. Brighton Ave. Syracuse 5, New York Please send me A. I. A. folder on Heatilator specifications.

Architect

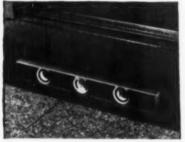
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MAY 1953

KENFLEX

combines every flooring advantage in one beautiful floor

PROOF THAT KENFLEX IS A TRULY SUPERIOR FLOOR



Thirteen years ago a test installation of KenFlex was made at the entrance to the elevators in New York's Union Carbon and Carbide Building.



Over 13,000,000 people have since walked over this KenFlex Floor and even with this heavy foot traffic, the KenFlex installation is still as smooth and attractive as the day it was installed.

New KenFlex is the result of years of experimenting and development by the Kentile, Inc. laboratories. It is made of asbestos, vinyl resins, plasticizers and selected color pigments . . . resulting in a long-lasting floor that is ideal for any use in any room. KenFlex increases the value of homes . . . the appeal of stores and shops . . . with its superior beauty and greater wearability. KenFlex is extremely resistant to grease . . . can't be harmed or stained by fruits and most other acids, inks and cleaning fluids. It is extremely easy and economical to maintain . . . never needs scrubbing . . . doesn't require waxing unless an extrahigh gloss is desired.

Specifications and Technical Data

INSTALLATION

KenFlex can be installed over any smooth, firm interior surface...wood, plywood, radiant heated concrete slabs, even over concrete in contact with the earth...on or below grade.

THICKNESSES

Laboratory and on-floor usage tests have proven that vinyl has great durability and wear resistance. Therefore, standard gauge (1/16") is recommended for normal residential and commercial uses. Where ex-

ceptionally heavy traffic is expected, 1/8" gauge is recommended.

INSTALLED PRICES

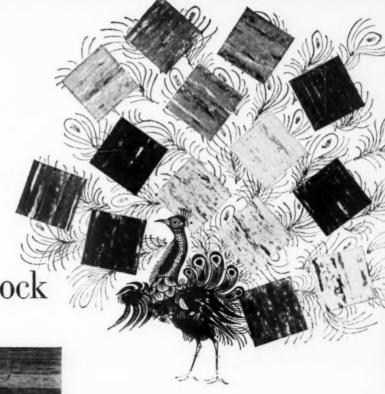
Prices range from 40c per sq. ft. to 65c per sq. ft. depending on which of the thicknesses is chosen—for minimum area of 1000 square feet over cement underfloor.

SIZE

Standard tile size is 9" x 9". Also available are 9" x 9" decorative ThemeTile and 1" x 24" Feature Strip.

For more information on KenFlex consult the KENTILE, INC. Flooring Contractor, a trained and experienced expert, fully qualified to aid you in choosing the proper floor for every residential, commercial and industrial installation. For his name and address, look under floors in your Classified Phone Directory.

KENTILE. INC., 58 Second Ave., Brooklyn 15, New York • 350 Fifth Ave., New York 1, N. Y. • 705 Architects Bldg., 17th and Sansom Sts., Philadelphia 3, Pa. • 1211 NBC Bldg., Cleveland 14, Ohio • 900 Peachtree St. N.E., Atlanta 5, Ga. • 2020 Walnut St., Kansas City 8, Missouri • 4532 South Kolin Ave., Chicago 32, Illinois • 4501 Santa Fe Ave., Los Angeles 58, Calif. • 452 Statler Bldg., Boston 16, Mass,



Colorful as a peacock



New KenFlex colors have a brighter beauty . . . won't dim, fade or wear off ... colors go clear through to the back of each durable tile.

At left, KenFlex sets the inviting color scheme of a restaurant with tile of Desert Sand, Bikini Blue and Star ThemeTile.

Below, a KenFlex Floor unifies a kitchen-dinette area. The glowing KenFlex colors are Lime Green, Shannon Green and White Ivy.





By the makers of Kentile

KENTILE, INC., Makers of: KENTILE ASPHALT TILE

SPECIAL (greaseproof) KENTILE

KENCORK FLOORS and WALLS

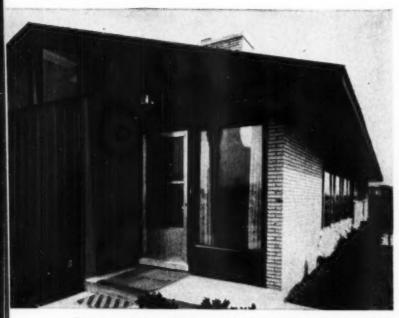
KENRUBBER TILE FLOORS

KENFLEX VINYL TILE



AMERICAN BUILDER BLUEPRINT HOUSE

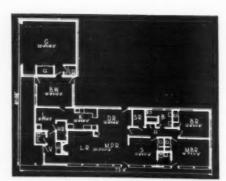
contest provides



Front entrance shows effective use of redwood siding trim and buff brick

BUILDER: Henry F. Fett, Royal Oak, Mich. DESIGNER:

Richard C. Donkervoet, Detroit, Mich.





This house, a prize winning design, is a project of the Builders Association of Metropolitan Detroit. Henry F. Fett built the home, supervising construction and using only quality materials. All interior furnishings were provided by the J. L. Hudson Company.

The design was the result of a contest held in 1952 for students of architecture and engineering in Michigan colleges and universities. The contest was sponsored by the Association and the winning design became the 1953 Builders Show Ideal Home, opened to the public during the period of the annual Home Show.

The basic house is a rectangle 25 feet by 73 feet 4 inches with an enclosed porch and a two-car garage, which are placed at right angles to the length of the house and flush with the front wall. This L-shaped arrangement permits the inside of the lot to be developed as a patio away from the noise of the street and accessible from the porch and dining room.

The house contains 1,304 square feet of living space all on one floor, plus 308 square feet for the adjoining porch and garage. Cost is approximately \$55,000.

In the planning of this house, the designer sought to

(Continued on page 68)

example for home show model



Laying cork tile over impregnated paper cemented to half-inch thick plywood base



Troweling surface of 2-inch concrete slab covering ground surface of crawl space

Architect, builder and superintendent confer at site during start of operations



House in framing stage ready for surfacing



Terne metal with standing seams at regular intervals applied to roof surface



MAY 1953

(Continued from page 67)

obtain the maximum consideration of all the available space for the use and comfort of the occupants.

The number one consideration was circulation, ability to move into various areas without crossing others. The house is unique in that six doors lead to the outside.

Number two consideration is the arranging of space into combinations of rooms for dual use. The living-dining area is referred to as a multi-purpose room with the thought that the space around the fireplace will be used for conversational grouping, the area beyond for play, and the portion adjoining the kitchen for dining. In essence the kitchen and entrance vestibule could be considered as part of the multi-purpose room because space is unimpeded by doors or openings.

The study-guest room is arranged for dual use as designation suggests. The accordion-type door makes it



Exposed redwood trussed beams, 2x6-inch V-cut plank ceiling and redwood wall paneling add richness to all-purpose room

possible for this room to be considered as part of the multi-purpose room.

A feature that warrants mention is the generous use of half baths (three in all) in addition to the full bath.

The house is placed on a concrete block foundation. A generous crawl space is provided under the entire area. This is covered with an asphalt board and a two inch thick concrete slab to exclude dampness. Exterior walls are covered with buff colored brick and redwood siding with terne metal on the roof surface.

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



For all practical purposes the combination living and dining room and kitchen constitute one large area. Counters and cupboards in kitchen are confined to two side walls

BRAND NAME PRODUCTS USED

American welded wire fabric California Redwood Carrier Weathermaker heating and air conditioning Celolex Coppes Nappanee custom

Coppes Nappance custom kitchen and laundry room Fiberglas Insulation Follansbee terne steel roofing

Formica worktops
frigidaire refrigerator, automatic washer

General Electric Disposall Handly-Brown water heater and incinerator

Hobart Kitchen Aid dishwasher Homosote insulation Hudson freezer

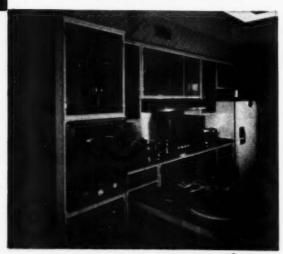
IPC Drycon waterproofing products Ironrite ironer Kentile cork and asphalt tile Kohler plumbing fixtures Lumber Engineering roof trusses Modernfold doors Nu-Tone Heat-a-Lite Pass & Seymour plug-plate receptacle

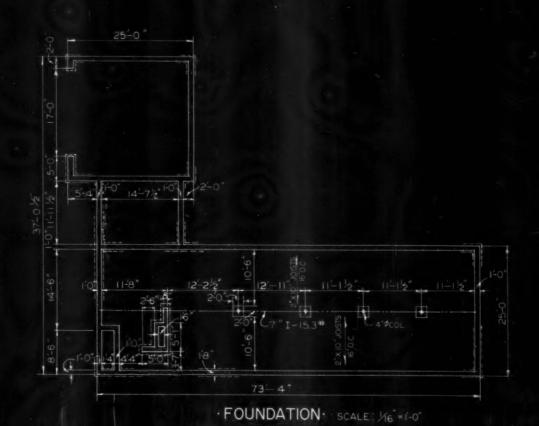
Peterson aluminum sliding windows

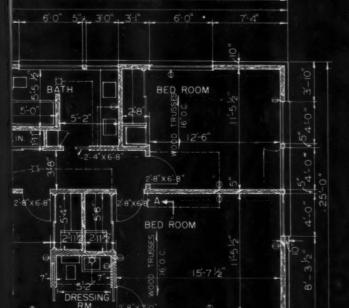
Pittsburgh roof paint
PC glass block
Pryne laundry and both fans
Rittenhouse door chimes
Schlage locks
Sparta ceramic tile
Square "D" low voltage
equipment

Thermador range and oven Thermopane windows Tilt-A-Door garage door Trade Wind ventilating fan Vitrolite bathroom wall tile Wrightex rubber tile

Cupboard wall in kitchen with built-in electric plate in counter and oven in wall. Metal hood with vent grille is placed under cupboard enclosing exhaust fan







DESIGN No. A.B. 191

AMERICAN BUILDER BLUE PRINT SERIES

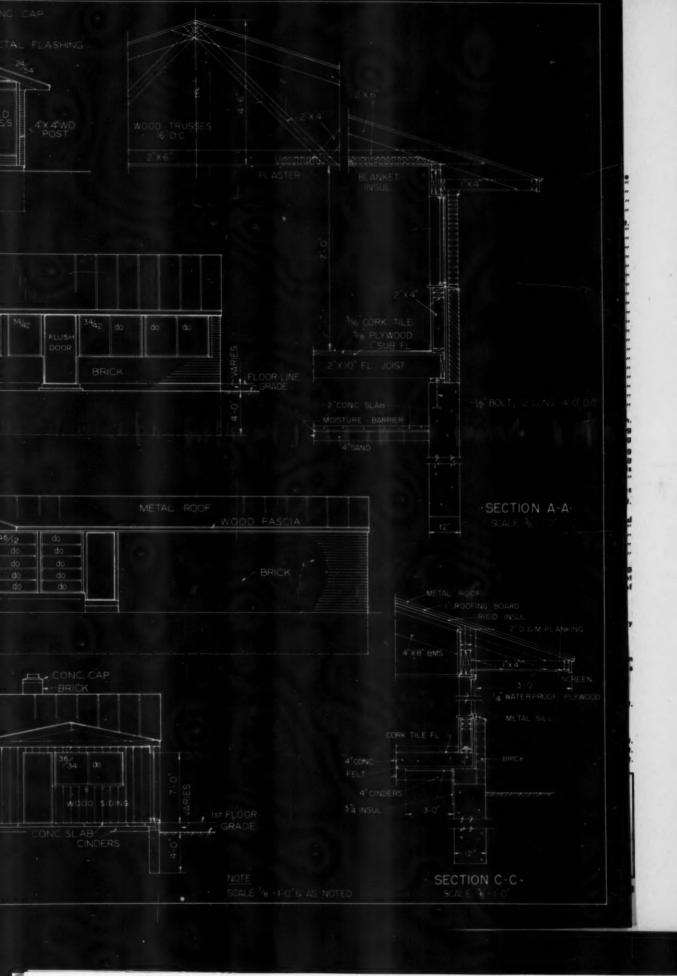
Designed By

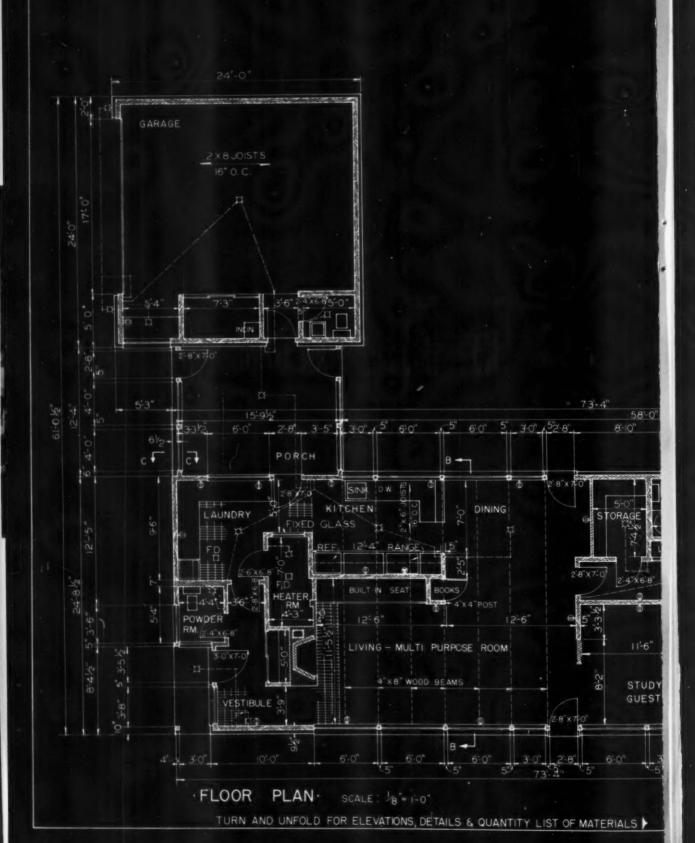
Richard C. Donervoet 14364 Faust

Designer
Detroit 23 Mich.

Simmons-Boardman Publ. Corp. 79W. Monroe St., Chicago 3,III.







Quantity List of Materials

For American Builder Blueprint House No. AB 191

Richard C. Donkervoet, Designer

General Information	Carpentry
House — Type brick & frame	Beams and Girders in crawl space
Area 1,804 sq. ft.	Foundation Plates
Cube 19,844 cu. ft.	100 lin. ft. 2"x4"
Height taken for cube was 11 feet	Joists
Garage — Area	Bridging 342 lin ft
Height taken for cube was 9 feet	Studding and Plates
Porch — Area	Bridging
	20 — 2"x 4" — 10'0"
Excavating	8 — 2"x 4" — 14'0" 45 — 2"x 4" — 16'0"
Trench for foundation	45 — 2" x 4" — 160"
Chimney and column footings	Ceiling Joist 27 — 2"x 6" — 26'0"
Excavation for crawl space 100 yards	54 - 2"x 4" - 10'0"
Cement Work	7 — 2"x 6" — 20'0"
Foundations	Trusses 14 — 2"x 6" — 12'0"
Concrete Work 900 sq. ft.	13 — 2"x 8" — 14'0"
815 sq. ft.	21 — 2"x 8" — 12'0"
Thickness	19 - 2 x 8 - 180
Anchor Bolts	Roof Rafters
	4-4"x 8"-12'0"
bent bolts 25 — 1/2 x 6 Miscellaneous	Framing Lintels
	5 — 2"x10" — 12'0"
Masonry	Ceiling Joist
Type brick veneer	11 — 2"x10" — 14'0"
Walls 1,424 sq. ft. brick veneer	
Window Sills metal	Roof Sheathing
Chimney	2,300 b.f.m. 1" sheathing
8"x12" — 12'	Side Wall Sheathing 2,300 b.f.m. wood sheathing
Cap 12 sq. ft. conc.	Side Wall Materials
Fireplace brick	Miscellaneous
Throat and Damper 1	rings and bolts for 27 roof trusses
Lintels 1	Flooring — Softwood %" plywood — 1,150 sq. ft.
Iron Work	Exterior Material
	Soffits 450 sq. ft. 1/4" W.P. plywood
Structural	250 11- 4 3"-4"
Miscellaneous	4 — 1"x8" — 16'0"
elevation not shown on plan	4 — 1"x8" — 16'0" 1 — 1"x8" — 18'0" 1 — 1"x8" — 12'0"
Millwork	
Windows — Type sliding & fixed & awning	Porches included with building Insulation
Material metal	1,230 sq. ft. rigid roof
Windows Glazed including trim & sills	1,200 14, 11, 11910 1001
- 4 awning 5 lights high 46"x12"	Sheet Metal
sliding units — 3 — 34"x66"	
3 — 34"x42" 3 — 34"x34"	Flashing chimney
3 — 34 x34 2 — 16"x34"	Davidson.
1 — 34"×70"	Roofing
1 36"x34"	Type sheet metal raised seam
3 — 22"x46"	Area 34 squares
fixed — 1 — 46"x72"	
2 — 34"x42"	Interior Walls & Ceilings
1 — 34"x70"	Area to be covered
with angle cuts — 1 — 42"x42" 1 — 36"x28"	
1 — 12"×42"	Flooring
1 58"x20"	
Enterior Dears Metarial wood	Ceramic Tile Floor
Exterior Doors	Rubber Tile Floor 300 sq. ft. Cork Floor 1,150 sq. ft.
1 — 3 0 ×7 0	COIX 11001 1,130 sq. 11.
Garage Door	
1 — 2'6"x6'8"	This quantity list will be subject to unsinting depending
5 — 2'8"x6'8"	 This quantity list will be subject to variation depending on the common practices in various sections and municipalities
Special Interior Doors 1 sliding door unit in garage	of the country, the techniques of individual builders, the types of
1 — 8'2" folding door	materials available locally and cost factors. The list published
Special Interior Millwork laundry and kitchen cabinets	here is a suggested one, complete enough so that it can be used
book cabinet and built-in seat	in arriving at a reasonably accurate estimate of the quantities

fixed light in heater room

3 sliding door wardrobes 2 linen cabinets

1 sliding door unit in vestibule

ing ities s of hed in arriving at a reasonably accurate estimate of the quantities and cost of materials that will be required to complete the structure. It was prepared by experts at the Edward Hines Lumber Co., Chicago.

how to protect slab floors from frost and dampness



Compacting coarse granular fill before application of

NCREASED use of the concrete slab on ground as a method of floor construction in residential work is due in large measure to the popularity of the one-story ranch or contemporary styled house.

Recent studies have shown that concrete floors on grade provide an excellent base when properly designed and built. This presupposes that a foundation wall deep enough to get below the prevailing frost line is placed around the perimeter of the house, and that a good grade of moisture membrane is placed under the slab.

This type of floor construction should not be erected in low lying areas that are damp and in danger of flooding from surface water. Surrounding ground area should slope away from the house with good drainage.

Subgrade

In the construction of the concrete slab on ground it is important that the subgrade be well and uniformly compacted to prevent any unequal settlement of the floor slab. All organic matter such as sod and roots should first be removed and the ground leveled off. Any holes or trenches for utilities should be filled in with layers not exceeding six inches thick and thoroughly tamped. The entire subgrade should be rough-graded to an elevation slightly above the finished grade, and then thoroughly compacted by tamping and rolling. In the event an excessive amount of fill is required it is recommended that a different type of floor construction be used, such as a crawl space with joists as supporting members.

Granular Fill

A coarse granular fill should be placed over the finished subgrade. The fill should be brought to the desired grade and then thoroughly compacted. This fill should be made of either coarse cinders, slag, gravel or crushed stone, preferably ranging from one-half to one inch in size. This fill is intended to serve both as an insulating material and as a protection from moisture from the ground.

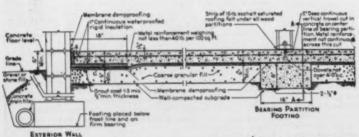
A line of drain tile should be placed around the outside edge of the exterior wall footings and connected to proper drains to minimize the possibility of ground moisture entering the granular fill.

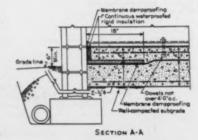
Provisions for Mechanical Trades

Provisions should be made for embedding ducts for heating systems and supply and waste plumbing pipes under the granular fill. Water service supply lines, if placed under the floor slab, should be installed in trenches of the same depth as those outside the building line.

Dampproofing

Where a 15-pound felt is used as a dampproofing membrane a stiff grout coat one-half inch thick consisting of one part portland cement and three parts sand should be placed on the granular fill to provide a smooth surface and to prevent workmen from punctur-







Membrane dampproofing being applied over grout coat



Completed floor slab. Note edge insulation strips and clips for attaching wood sleepers for wood flooring

ing the membrane. A satisfactory substitute for the membrane and grout is a 55-pound felt placed over the fill, with joints well lapped and mopped with hot asphalt. This membrane should be continuous over the entire floor area and carried up on the inside face of the foundation walls to a point one inch or more above the finished floor line.

Concrete

Concrete for the floor slab and bearing partition footing should be made with durable, well graded aggregate and should contain not more than six gallons of water for each sack of cement, including the moisture contained in the aggregate. The mix should consist of one part portland cement, two and one-fourth parts of fine aggregate graded from one-fourth inch down, and three parts of coarse aggregate graded from one-fourth up to one inch. The concrete after placing should be thoroughly compacted by tamping and spading. The concrete should be kept moist for at least two days except when the finished floor is to be exposed concrete. In that case at least five days of moist curing will be required.

Reinforcement

Metal reinforcement weighing not less than 40 pounds per 100 square feet with equal cross sectional area of the reinforcement in both directions should be placed in the concrete slab one and one-half inches from the top of surface.

Insulation

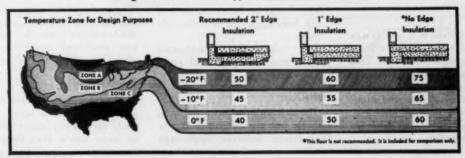
A one inch thick continuous waterproofed rigid insulation strip should be provided between the foundation walls and the edge of the floor slab. This edge insulation is highly important.

In recent years a great deal of study and research has been devoted to the development of further economies in the slab on ground construction. The federal government and research minded builders through grants extended to universities, associations and others have given much thought to simplified construction methods. The following are a few of the methods under consideration in the laboratory or by field experiments: (1) The use of grade beams around the perimeter of the house in which the beam is poured integral with the slab without the use of supporting posts or beams. (2) Floating slabs of varying thicknesses without benefit of grade beams, posts or foundations. This would be applicable to the southwestern area where tricky soil conditions exist. (3) The elimination of the membrane waterproofing under slab in connection with the normal type of slab on ground construction. It is hoped by its advocates to reduce the time lag now necessary for moisture evaporation to take place to trowel finish the surface.

These methods and others are now in the experimental stage with research constantly applied.

See next page for results of research on floor slabs

Design Factors for Three Types of Floor Construction



what research has brought forth

foundation walls for concrete

floor slabs

By William Egger

A digest of tests on concrete floor slabs, conducted by the University of Illinois Small Homes Council in cooperation with Levitt and Sons, Inc. of Manhasset, N.Y.

The increasing use of concrete floor slabs for basementless houses has presented a need for more information regarding frost action on slabs.

Investigations of heat loss characteristics of concrete floors placed on ground have established the fact that frost will not occur beneath the floor if the structure is heated. In northern areas where frost occurs, it is customary to extend foundations of basementless houses below the frost line. In some of these areas grade-beam foundations have been used successfully.

Objectives of the investigation reported here were:

1. To determine the relation between movement in foundation walls and the temperature.

 To study the physical behavior of floor slabs with different types of foundation walls, constructed on different types of soil and subjected to different drainage conditions.

3. To determine the advisability of providing a foundation wall extending below the frost line.

Floor Construction

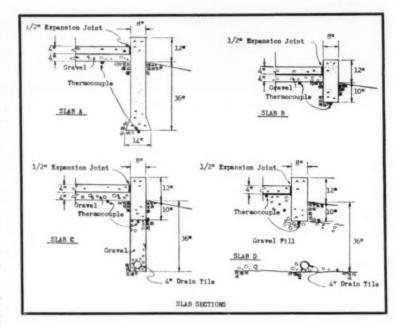
Refer to the cross sections of the four 24x28-foot floors and foundations. A typical plan of the slabs shows the general layout.

Wall Loading

The foundation of each slab was loaded with concrete blocks which approximated the dead load imposed by a frame house with trussed roof, 200 pounds over lineal foot on east and west walls, 400 pounds on north and south walls.

Shading

Shading of slabs B. C and D was accomplished by using a snow fence as roof at an eight foot height. This provided approximately 45 per cent shade on a vertical projection. Slab A was shaded by a gable roof structure with eaves at about nine feet, giving nearly 100 per cent shade on a vertical projection.



Temperature Measurements

Sixteen thermocouples located at the center of the north and south sides of the slabs were used to determine the temperatures beneath the floors and foundations. The outdoor mean temperature was used instead of the average.

Determining Soil Characteristics

The grain size of the soil is used as a method of classifying the relative amounts of movement possible in the soil.

Sands and gravels—No frost movement.

Silts and silty sand—A very large movement.

Clays—Large ice lenses can form if the freezing period is sufficiently long.

The soils under investigation were a gravel and a mixed grain soil.

Soils

The slab with the gravel sub-soil, slab D. was not subjected to any frost action; however, there were cracks at the center of each foundation. These cracks could have been caused by settlement or shrinkage. The maximum movement of the mixed grain soil was only one half inch which is within the acceptable limits of a settlement design

Cracks

Although there were a considerable number of cracks in the floor and foundations, there was no difference in elevation between one side of the crack and the other; however there was a separation in some instances, the maximum separation being about ½ inch. The majority of the floor cracks occurred on the south side of the slabs. The cracks all ran perpendicular to the edges of the floor. The cracks in the foundations were believed to be the result of temperature and shrinkage rather than movement.

Conclusions

It is reasonable to believe that a shallow foundation would be entirely satisfactory under conditions no more severe than those under which the tests were carried out. There are certain measures, however, which should be taken to eliminate some of the undesirable aspects of the construction used in the tests.

The foundation and floor should be monolithic to eliminate the differential movements.

In order for the floor and foundation to be subject to the same amount of frost action gravel or clean sand should be used beneath the floor slab to the depth of the bottom of the footings.

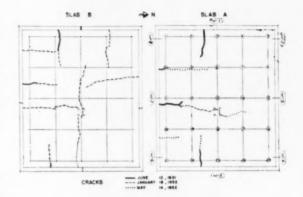
Problem of Movement

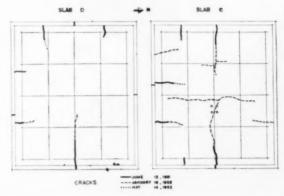
Vertical movement of structures cannot be eliminated unless they are founded upon solid rock. Since this is almost never the situation for small homes, some movement must of necessity be expected and accepted.

Recommendations

As a result of this investigation, the following recommendations for construction of shallow foundations and slabs on grade are presented.

- In clean sands or gravels, shallow foundations can be built directly on these soils since there is practically no movement in this material due to frost action.
- On a silt or silty sand soil, never use a shallow foundation.
- In a mixed grain soil, be sure there is sufficient clay to make the soil act as a closed system over the most prolonged freezing period.
- Footings should be placed on undisturbed soil, should be of a width which is dictated by good prac-

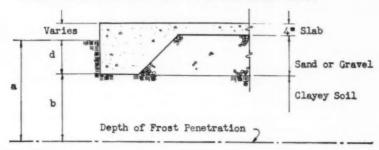




tice, and should be sufficiently deep to be beneath any organic matter.

5. The floor and foundation should be monolithic.

CONSTRUCTION RECOMMENDATIONS FOR SLAB ON CLAYEY SOIL 4



a-Depth of frost penetration

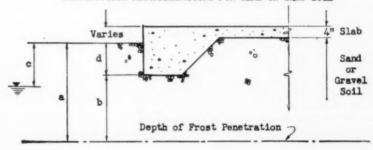
b—Zone of soil which affects the movement of the foundation by frost action

d—Depth of footing below grade Assuming a—36"

d-36-(25 to 15)

d—11" to 21" maximum depth

CONSTRUCTION RECOMMENDATIONS FOR SLAB ON SAND SOIL.



by frost action

d-36-(33.3 to 16.7) d-2.7" to 19.3" maximum depth

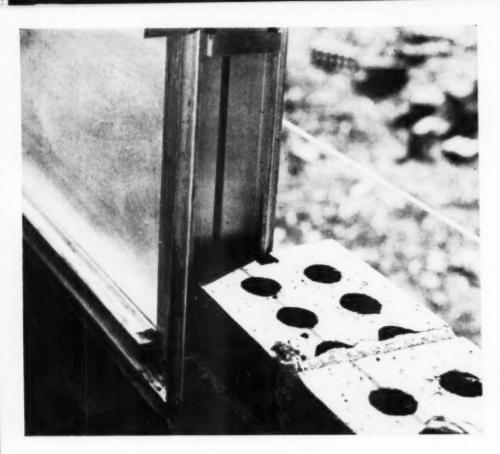
Assuming a-36"

c-Depth of water table

a—Depth of frost penetration b—Zone of soil which affects the

movement of the foundation

d-Depth of footing below grade



Jamb slot half of brick finds more use than other half. Subcontractor and builder hoped SCR brick manufacturers would produce half brick

case history report — ON THE JOB with SCR BRICK

"It's slightly higher in cost but I think it will find real salability in this area," stated Tallahassee Builder H. B. Culpepper, first to use the new "through the wall" masonry material in the state of Florida. For Culpepper and his masonry subcontractor, G. W. Stekelather, this is the first venture with the new sixinch brick. Their experiences, problems, and suggestions can point the way for many other small builders.

Constructionwise the Florida builder used a four-inch concrete block backing for his foundation wall. Floor joists, in the basementless construction, rest on the block. The foundation vents were dropped into the jamb slot of the brick for easy installation.

As no six-inch lintel was available for above the windows and

doors, the builder used a wood lintel and a boxed cornice. Furring strips were attached to specially designed furring clips that are set in the joint. Culpepper's costs show the SCR brick to be slightly higher than frame construction. Frame in the Florida area runs 58 cents per square foot while the SCR brick costs 74½ cents per square foot. Other masonry wall costs in the area from Culpepper's records are:

8-inch wall, common, (concrete) \$1.12/sq. ft.
8-inch wall, brick and block, \$.87½/sq. ft.
8-inch wall, brick, \$1.33½/sq. ft.
These costs are based on masonry labor at \$3 per hour and brick sell-

ing for the following amounts:

SCR Brick \$80 per M
Face Brick \$50 per M
Common (concrete) \$25 per M

Stekelather and his masons found



With no six inch lintel available, the builder used a wood lintel. Florida FHA requires a poured reinforced lintel



Greater mortar production was found when the mortar was applied to the sides and spread toward the center

that mortar costs were worth considering. His masons were applying the mortar at the center of the brick and spreading to the sides. This method gave more than an ample bed of mortar yet laid up only 70 bricks per bag of mortar mix. They then applied the mortar to both sides of the brick and spread to the center. This method increased production to 95 or 100 per bag.

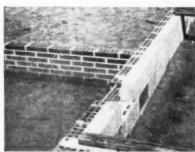
Need For A Half Brick

Both the builder and the masonry contractor echoed the same desire that the SCR brick manufacturers should introduce a half brick unit. They base their argument on the waste of the non-slotted end of the brick after cutting around windows. The slotted end is an integral part of window construction because the window fits into the jamb slot: therefore, this half finds ready use. However, the other non-slotted half can only be used at door openings. As there are many more window than door openings many of these halves are wasted. The waste was roughly estimated by Culpepper at \$61.70. The figure is based on the cost of the brick and the labor of cutting and laying.

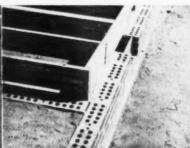


The economies achieved through the use of SCR brick sold this custom job in the first use of the material in Florida

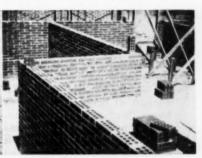




Four inch concrete block was used as the backup for the SCR brick foundation. The back-up for basementless job costs \$100



Floor joists rest on the concrete block, are preservative treated. Note how the ventilator is dropped into the jamb slot



The brick lays up fast as it is six inches wide, 12 inches long. Masons in Tallahassee lay 400 to 500 bricks a day



Perfect parallel lines won praise from builder and owner. Builder and masonry contractor remarked at the few culls



Workmen are trimming out the fly rafter.

Note the treatment of the wood lintel
after it has been boxed in



Mason subcontractor found that applying mortar to the center of the brick and spreading to the sides wasted mix



To fit these double hung windows in the jamb slot the corner of the brick had to be cut. Brick is not cut for casements



Windows were greased and temporarily braced. Builder had difficulty finding regular brick the same color for window sill



Homemade line holder speeds moving of the line. Tension of the string holds it in place. Saw kerfs keep line from slipping

university reports on SPACE-USE STUDIES

A REPORT on how floor space can be better utilized in small homes is now available from Small Homes Council of the University of Illinois. The report is based on a 12-months study of family reactions and movements with different floor plans and room sizes. Its aim was to develop standards of space required for modern family living.

The study, sponsored jointly by the University and the Housing and Home Finance Agency, was conducted in an experimental house or space laboratory. The dwelling was a modern appearing structure with non-supporting walls. Every four to five weeks the plan was changed.

Two families, selected as representative of those occupying small homes, lived in the space laboratory six months each. Each was a couple about 30 years of age, with two children. Their living habits were studied by the use of electric counters at doorways to check traffic, and time clocks to determine how long occupants stayed in certain rooms. Each month their reaction to the plan was studied.

Certain floor plans were used for both families. The record contains comments of both. The report from the Small Homes Council eliminates comments on such activities as entertaining, family recreation, sewing, ironing, house cleaning, etc. It covers such activities as eating, laundry, child play, and comments on room sizes and arrangements.

Associated with the Space Utilization study are: Joseph H. Orendorff, director, Division of Housing Research: George A. Speer, staff technician, Division of Housing Research: James T. Lendrum, director, The Small Homes Council. and Rudard A. Jones, chairman of the Space Utilization Committee. Other members of the committee are Dr. Richard Dewey, associate professor of sociology, Helen E. McCullough, assistant professor of home economics and William H. Kapple, Resident, assistant professor of architecture, Small Homes Council. Project staff members are Byron E. Munson, J. Keith Laumer and Mary B. Farnham.

PLAN 1A—The first plan was an identical copy of 10 university rental units. These houses had previously been studied and some sort of control was available. Layout featured a large kitchen-laundry, a combination living-dining area, and two bedrooms. General comments of the mother were: An additional bedroom and a basement for dead storage were needed. The bath was too small but other rooms were good size. A door was needed leading from the kitchen to the bath-bedroom area and central hall giving access to all rooms. She refused to choose between a house with three bedrooms and a small



living room, and a two bedroom house with a large living room. She wanted three bedrooms.

PLAN 1B—Large living-dining room, small kitchen without eating space, laundry in hall, one entrance and three bedrooms are features of this plan. Kitchen proved to be too small and the laundry area was not liked by the First Test Occupants. They found the washer and dryer too noisy, and visible from living-dining area. Also, clothes sorting in hall interfered with traffic. The mother wanted to add a basement for recreation, storage and laundry. She also wanted to increase size of children's bedrooms and eliminate hall. Family objected to location of the



entrance; wanted it located at the front of the house.

PLAN 2B—Since the first family did not like the laundry arrangement in Plan 1B, the Small Homes Council changed it slightly in Plan 2B for the Second Test Family. As a result, the mother liked the laundry facilities. She considered the eating arrangement very satisfactory; however, said kitchen was too small, and disliked the wall against the range. She was satisfied with the number and size of rooms, but would add a utility room. The advantages of three bedrooms outweighed the advantages of a separate dining room, utility room, or a larger kitchen and living room. This test family did not like



the location of the doorway or the fact there was only one entrance.

PLAN C-This open plan gives the living-dining area greater space. Special features are the bath-laundry combination, and the entrance vestibule which has a seven foot storage unit. Toward the end of the test period, the kitchen table was taken out so the area could be used for play space. Meals were then eaten in the dining area. After the test, the mother wanted both eating places and did not care for laundry in bath. Conversely, she did say that the longer she used the laundry, the better she liked it. The First Test Family would add a third bedroom. basement, and increase the size of the children's bedroom, Family liked the circulation, room arrangement, and the vestibule at the front door.

Test Family Two also lived with this plan. The table in kitchen was removed during first part of test with option of having it returned. This family left table



out of kitchen and continued to use space as play area. At end of test mother still preferred this area for a play space rather than for an eating space. The bath-laundry arrangement rated high with this family. They wanted a third bedroom but did not consider a separate utility room nor basement as necessary. They would omit vestibule; include this space in the living room.

of SMALL HOUSE

PLAN D—In this plan the laundry facilities were located in the basement. The arrangement proved to be the worst feature, according to the First Test Family. The mother felt that there were too many steps. The children's bedrooms were separated by an accordion-type wall to provide a play area. The children did not play in the space, however. Meals were served in the kitchen, although the mother would have preferred the dinette but it was too small. The kitchen and living room also were too small. The family felt the vestibule took valuable space from the living room. Also they wanted a solid wall be-

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tween the living area and the kitchen; the test wall had a pass-through to the dining area.

The Second Test Family who lived with this plan agreed with the First as to its faults. Though convenient, the kitchen eating space was too small, as was the dinette. Laundry facilities in basement were unhandy. The mother washed two or three days a week, handled two or three loads per day. The children did not play in the convertible bedrooms, and the mother expressed no preference for this play area. This family did not want to add or eliminate any rooms. They found the child's corner bedroom too small and objected to the space the vestibule took from the living room.

PLAN E—This plan was introduced to test minimum dimensions. Included were three bedrooms, all smaller than FHA requirements. The living-dining area was slightly larger than minimum and was augmented by a play area. The work space in kitchen was at a minimum, as was the eating space. The First Test Family reported that the eating space, boy's bedroom, and living room were too small. The kitchen was too small for ease in working. They felt a utility room was desirable, a basement unnecessary. The play space next to living room was acceptable.



The Second Test Family also lived with this plan of minimum-sized rooms. Although most meals were eaten in kitchen, the family found it too small. The door and table interferred with traffic. Laundry facilities were adequate and their placement near back door good. However, to relieve overcrowding the kitchen, the mother would have placed laundry in basement. The playroom off living room was not liked; family would have preferred a larger living room and larger bedrooms. They reported bathroom was too small.

PLAN F—This plan was designed by the First Family as their idea of a room arrangement in a 24x36-foot area. Their plan omitted closets from parents' bedroom. Small Homes Council installed closets, however, which made bedroom too small. Except for this closet problem, and kitchen layout, the Council considered plan to be very good. Features were living room at back of house, kitchen at the front, and a bath-laundry. After living with plan, the family grew dissatisfied with the kitchen arrangement. Found, also, the bath-laundry was too narrow and too crowded. Mother decided she



wanted laundry in kitchen. Family felt house should be four feet longer.

The Small Homes Council used first family's plans as one of the experimental plans for Second Test Family. This family considered eating arrangements satisfactory; however, did not like kitchen arrangement, nor the location of kitchen door. Generally they were satisfied with number of rooms and the laundry arrangement. They felt they would add a utility room or a playroom. None of the rooms was believed to be too Jarge or too small. Family preferred to have front door open into living room, which means reversing house, putting living room at the front, kitchen and bath at the rear.

PLAN G—This was the Second Test Family's own design for a 24x36-foot rectangle house. The Small Homes Council did not agree with the isolated bedroom, the shape of the living-dining room, or two doors to the bath. After living with the plan, the family still liked most of the features. They thought the eating-cooking space was satisfactory. They also



approved of the utility space, the number of rooms, and the room sizes. After living with it, they did find fault with the size and shape of living-dining room. They also disliked two doors to the bathroom. An interesting comment from the mother was that while this was her first experience using a dryer, she was now considering buying one.

put SUMMER COOLING in the package

In St. Louis, two merchant builders pioneer all-year air conditioning as the prize part of a new-house package selling at the \$20,000 level

FIRST builders in St. Louis, Missouri, to climb firmly on the bandwagon of residential air conditioning are Melvin Glick and the Joseph H. Vatterott organization. Both veterans in subdivision work at moderate and low price levels, Vatterott and Glick both sensed last summer that the time was ripe in St. Louis for the air-conditioned house designed for the speculative market.

The St. Louis summers have a reputation for being sizzlers (and 1952 was a corker), but the town is ultra-conservative, and the offering of a subdivision of houses with complete air conditioning was not necessarily the foolproof venture it might seem to be. Also, last summer saw some slump in the new-house market in St. Louis.

Actually, it was this slump itself, plus the "feel" of the general situation as to air conditioning, which convinced Glick that a \$20,000 house offering summer cooling would stimulate a market by its very uniqueness and easily argued desirability. The Vatterott company felt much the same way, believing that home air conditioning has now advanced beyond the talking stage and is ready to go. Both builders independently began projects of airconditioned houses in the autumn of last year.

Vatterott's Ferguson Hills

Known as Ferguson Hills, the Vatterott project in Ferguson, Missouri, is a 153-house development on raw land. Lots are large—10,000 square feet: improvements are complete; land planning is according to scientific standards.

The first construction group has consisted of 25 houses at \$19,800, \$23,900 and \$24,900, using the 3-ton air conditioning unit of General Electric and of Servel. Before the tract is completed, Vatterott hopes

to include a group of air-conditioned houses selling at around \$17,000.

Market response to Ferguson Hills has been favorable, even though the financing available for the first houses has not been favorable. Maximum loans were \$14,000 on the \$24,000 house. Thus the first houses have felt the impact of the classic resistance of lending institutions to anything that deviates from standard.

Although reportedly interested in the possibilities of all-year air conditioning for houses. FHA in St. Louis still regards the equipment as an extra and does not accept it as part of a mortgage. However, with the optimism of a true pioneer. Vatterott confidently expects all this to change for the better.

Also, as he points out, the first houses in Ferguson Hills were not offered until November, and winter is hardly the time to test the sales power of summer cooling. The coming summer season will be Ferguson Hills' big moment.

By mid-February, 10 houses had been sold. All buyers except one took the air conditioning package. If a buyer does not want summer cooling, Vatterott allows a deduction of \$800 on the sales price.

Design-wise, neither the Vatterott house nor the Glick house shows any influence of summer cooling. There are no windowless walls or fixed sash other than the usual picture window, no absence of screens and storms. The roof pitch is no lower than usual and the open porch still has value. Both houses follow good design along conventional lines.

Glick's McKnight Heights

Melvin Glick's operation in University City, Missouri, includes 69 houses on lots of 7,500 square feet, all priced at \$20,000 and all heated and cooled by the 3-ton Carrier Weathermaker.

Carrier helped Glick announce his pilot house, with a big publicity fanfare which really brought results. "All conditions seemed to be just right," Glick says. The model house was ready by late October and 37 of these Weathermaker houses were sold almost immediately. By mid-February 66 houses had been sold and 54 were under roof.

All except five buyers took the air conditioning package. When Glick investigated to determine why these five didn't want summer cooling, he found that in each case special conditions in health had made the decision necessary. Glick allows a deduction of \$1,000 if the buyer doesn't take the summer cooling.

Glick was lucky on the financing for these McKnight houses. The typical loan is for \$13,000 for 20 years at $4\frac{1}{2}$ per cent, arranged without benefit of FHA.

What About Costs?

The summer cooling unit will add around \$1,200 to the cost of the heating installation for an average six-room house, but both Vatterott and Glick are ready and willing to testify that it will add far more than that to the value of the house. Glick says as much as \$3,000, while Vatterott is more conservative.

But the most burning cost question is, "What will it cost the owner to operate the plant?"

To this question the two St. Louis builders do not yet have an answer from experience, and won't have until after the first cooling season (this summer).

In practice thus far, Glick tells buyers that a generous estimate for the heating of the house would be \$30 a month for a 7½ month period. Figure it over a 12-month period and the total should more than cover the cost of operating the air conditioning plant for the entire year. Vatterott simply tells custom-

ers that he estimates the cooling will cost about \$100 for the season.

Neither builder has yet gone into any scheme for saving water and thus reducing the cost of operating the cooling unit. Neither seems to feel that the water tower idea is a practical one for the St. Louis area. It costs too much to install and doesn't look well when used with smaller houses, in their opinion. As Vatterott points out, however, something will have to be worked out—and will be worked out—sooner or later. For quite apart from the question of operating cost, St. Louis

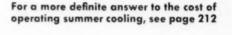
county has trouble with water pressure during long, hot, dry spells.

In the meantime, neither Vatterott nor Glick is letting the water problem influence his conviction that summer cooling really is the bright star of the house Mr. and Mrs. America will want tomorrow.

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L.R. B.R. C. B.R. 10-0'X11-0"

| B.R. C. B.R. C. B.R. 10-0'X11-1"







THE VATTEROTT HOUSE selling at \$19,800 has 1,120 square feet, two floor plans, a porch and a fireplace. For \$23,900 and \$24,900 buyers can get a somewhat larger house, with double garage, but with essentially the same floor plan and exactly the same heating-cooling system.

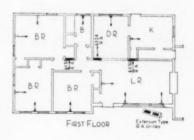
Heart of the house is in the basement—a 3-ton General Electric allyear air conditioner. General Electric's Air Wall system of air distribution is used. Plan for the duct work (a typical layout is shown in the drawing) is simple, clean-cut.

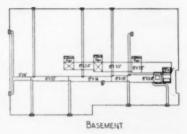
Exterior combines brick and redwood. The redwood siding is given one coat of aluminum priming paint, two coats of finish paint. Color is carefully controlled by the builder to create pleasing variation in the subdivision. The lot is sodded and given basic landscaping.

Interior construction is laminated



drywall (one sheet applied vertically, one horizontally). Kitchens have General Electric sink with dishwasher, cabinets. Floors are oak. Bathrooms have ceramic tile. Venetian blinds go with the house as do screens and storms. Architect was George Winkler of Clayton, Mo.



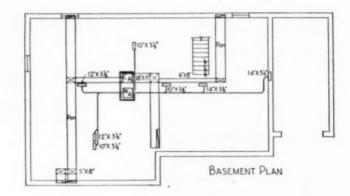


SUMMER COOLING

THE GLICK HOUSE has one plan, a number of elevations. All houses are of face brick on cinder block walls. Floors are oak. Bathrooms have ceramic tile. Kitchens are equipped with sink with disposer, cabinets. Screens go with the house as do screen-and-storm doors. Isadore Shank was the architect.

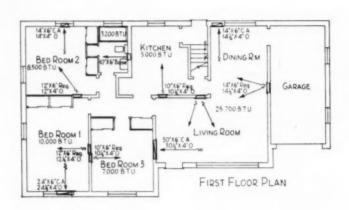
Heart of the house, in basement, is the 3-ton Carrier Weathermaker. Glick says, "It's the Cadillac of home air conditioners."

Good use is made of storage walls. A set of seven prefabricated closets is made to Glick's specifications by the nearby United Lumber Co. and delivered to each house. These seven closets are placed to form one wall in each of the three bedrooms. They



arrive completely assembled and are simply shoved into place. Cost of the set per house runs about \$465, which Glick figures saves about \$150 in materials and far more in labor cost per house. Sliding doors for these storage walls are made of Novoply.









84

AMERICAN BUILDER



D can we make it?



In the design, engineering and building of every Ro-Way overhead type garage door, the guiding principle is simply this:

to make it as good as it can be made.

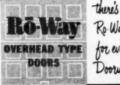
Take Re-Way appearance, for example. Clean, simple, tunctional lines that blend unobtrusively with the building design. Lines that bespeak the thoroughbred quality built into every Ro-Way door.

Take Re-Way construction. Mortise and tenon joints are not only glued, but steel doweled as well. Muntins, rails, and stiles are precision-squared. Sections are rabbeted to assure weather-tight joints. Millwork is both drum and nand sanded for extra smoothness. Heavy gauge steel hardware is fabricated on special machines right in the Ro-Way plant—then Parkerized and painted for lasting protection.

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Finally, Ro-Way designers and engineers are constantly striving to make Ro-Way doors even better. In this way we make certain the name Ro-Way identifies the finest in overhead type garage doors.

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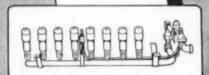
SILENT AS A KITTEN WITH AN EXTRA SET OF FOOT PADS!

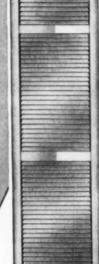


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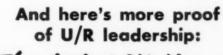
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You can get plenty of proof of U/R leadership in the laboratory, where scientific instruments measure fixture quality. This spectrophotometer, for example, precisely measures the accuracy of Universal-Rundle color matchings, in addition to proving that U/R Arctic White fixtures are the whitest fixtures made.



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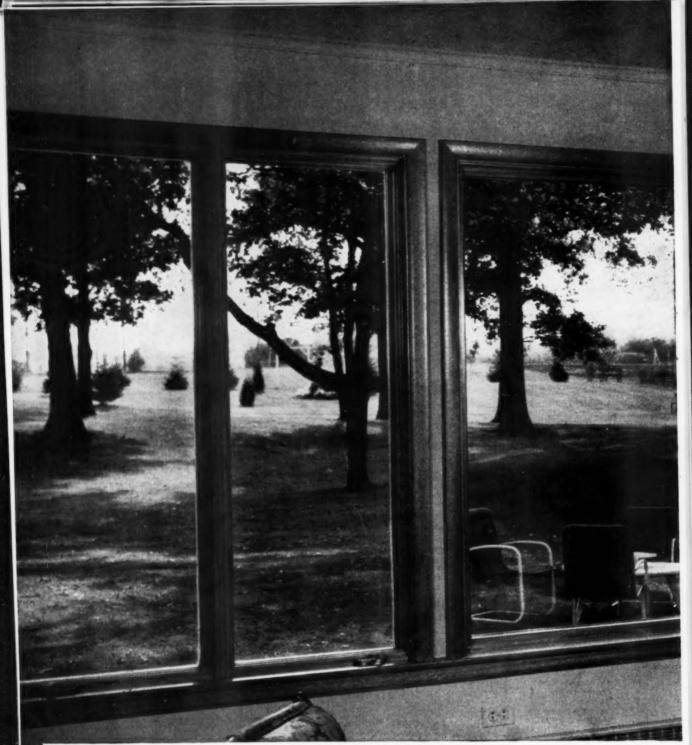


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Andersen Casements with wide sash-Charles Klopp, Palatine, Ill., Architect

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A PICTURE of nature's ever-changing beauty decorates an entire wall of this living room. It is framed by a WINDOWALL of Andersen Casement Window Units. As windows, they admit sunshine, cooling breezes and

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"Usually sold before they are completed!"



Several miles northwest of Seattle, and overlooking Puget Sound, is this five-acre development known as Dahl Terrace, on Magnolia Bluff.

The development includes 19 homes (varving in price from \$25,000 to \$75,000); all of them planned with a view in three directions.

The homes are on the highest point in the area overlooking Puget Sound, the lights of the city of Seattle, the Olympic Mountains and the Cascade Mountains. G-E kitchen and laundry appliances, similar to those shown in the photographs below, were installed in all these homes—proof of the built-in quality of the entire development. And, most of the homes were sold before they were completed.

TODAY'S HOME prospects want kitchen and laundry appliances as a basic part of the house. And, most people prefer General Electric Appliances to any other make.

Below, you see Mr. Bernhard Dahl calling on

homeowner Mrs. C. Cufley to obtain first-hand proof of satisfaction with the General Electric Kitchen-Laundry equipment in her Dahl Terrace home in which she has now lived for two years.

Note her comments.



"After dinner, I just whisk through the clean-up I used to dread. The garbage is washed away. I place the dishes in the dishwasher, and walk away."



"My G-E Refrigerator is so spacious. There's room for everything. Besides, the vegetables are always crisp; all the food is properly refrigerated!"



"I put my dinner in the oven in the morning, set the timer and go to a meeting or shop all day. When I get home, dinner's ready."



"Now I wash the boys' clothes and they are ready to put on again after their naps. Without a G-E Dryer, clothing might take several days to dry."



"Right now, I have in our General Electric Freezer a Dungeness crab which the boys caught.... Now I can buy in quantity, prepare dinner in less time."



"We've used these G-E cabinets for over two years now and they're as beautiful and white as the day we moved in. They are certainly easy to keep clean!"

Mr. Dahl has been building quality homes for over twenty years in the better residential areas of Seattle, including Magnolia Bluff, Magnolia, Windermere and Innis Arden. He says:

"To be truly lived in, today's home must include the latest equipment . . . quality equipment that gives the homeowner maximum comfort and convenience at a minimum of maintenance and operating expense.

"I have never had any trouble selling homes. They are usually sold before they are finished, and in most cases, I feel people want them because they are quality homes in every way and because they have the very best in modern appliances—General Electric."



Mr. Bernhard Dahl is a past president of both the Seattle Master Builders, Inc., and the Seattle Home Builders and Contractors.



How G.E. will help you to merchandise your houses

Men who know the building field, men who can be your right arm in helping to make your development an outstanding sales success, are available to you.

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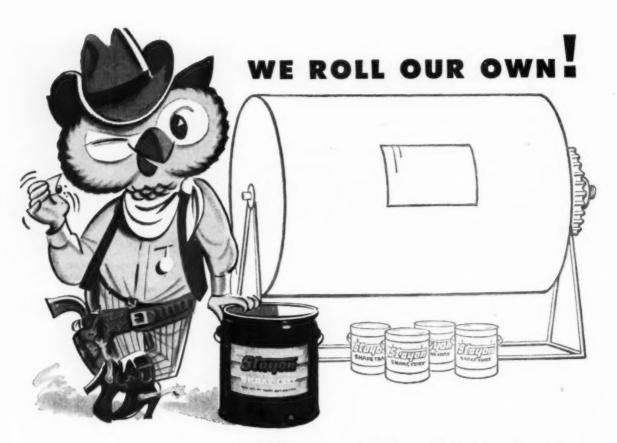
Furthermore, they will be glad to provide draw-

ings of kitchen and laundry layouts that are specifically designed to meet your building problems, publicity and advertising recommendations, even suggestions for various mortgage plans.

For further information, see your G-E distributor, or write to the Home Bureau, General Electric Company, Louisville 2, Kentucky.

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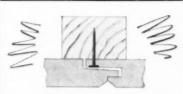
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inexpensive way to build an attractive new, extra room in attic or basement. These families can mean a lot of extra business for you.



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The attractive, smooth hard surface, which is unusually durable and tough, resists marring and scuffing.

Choice of beautiful colors

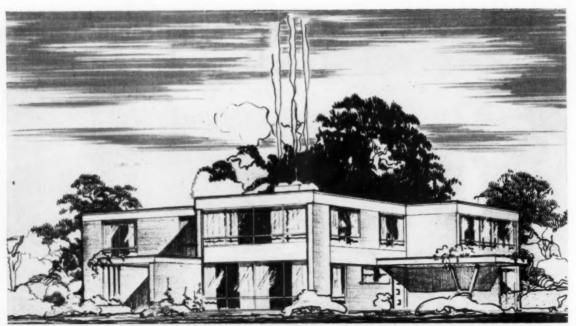
J-M Panels and Plank are predecorated in lovely colors—the Wall Plank in Ivory, Dust Rose, Buckskin Tan and Antique Green; the Ceiling Panels in White and Ivory. No further finishing treatment is required.

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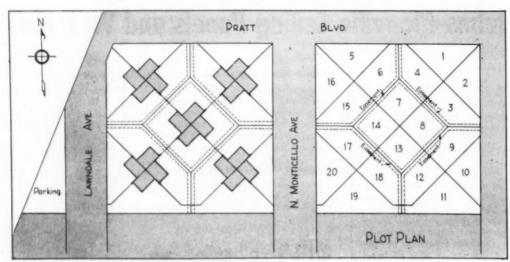


Johns-Manville



"Cross" plan, four-plex unit, assures privacy for each dwelling. Each six and one-half room unit has 1,408 square feet plus full 22x32 foot basement. Selling price is \$22,500 per unit

LATEST in multiple dwelling design — AIR CONDITIONED too!



Unique land planning is shown on the plot plan. Each block will have five four-plex units or 20 dwellings. The land planning arrangement lowered water, sewer, and street costs

A NEW architectural concept for multiple dwellings, which assures privacy for each owner, is now under construction in Lincolnwood. & north suburb of Chicago. William B. Cohan, Chicago architectengineer, designed the "Cross" plan of four living units. Each house has individual utilities, yet has cost cutting party walls on two sides.

The development known as Clover Town and Country Homes is comprised of these four-plex, two story units. Individual apartments sell for \$22,500.

No restrictions are placed in the deed concerning the owner's responsibility to others in the multiple unit. Each owner has clear title to the land and his portion of the building.

The development is the first in Chicagoland to have complete air conditioning. Each of the apartments is heated and cooled by a Carrier Weathermaker Unit.

The architect believes he has shaved approximately \$7,000 off the sales price by economies found in the unusual design. Common walls made possible by setting each dwelling on the back corner of the lot reduced masonry and other costs. Lots are triangular or trapezoidal in shape giving each dwelling a corner. Private driveways lead to each unit.

Utility planning was another cost-saving factor. Grouping of the utilities at the center of the cross for the four dwellings made possible a common core containing flues, plumbing, roof drains, and bath exhaust ducts. This grouping made installation easier. Each dwelling has its own complete set of utilities.

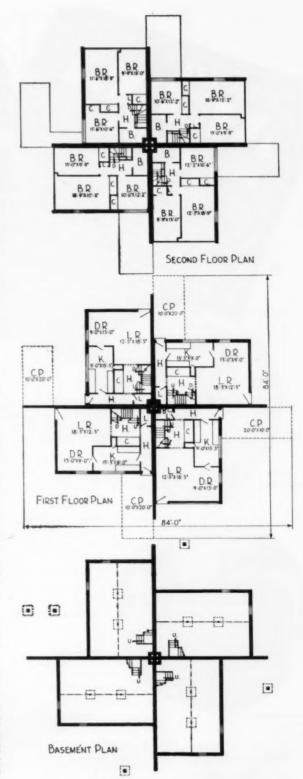
The windows are fixed frames with small ventilator panels below. The front window wall of the building is of wood. A parapet is eliminated from the plan to shave masonry costs. A cant strip and gravel stop were installed in its place. The party wall, or common wall, is constructed of 12-inch block.

All wood materials are precut to further reduce costs. Planning for the identical units has all partitions the same so the precutting operation becomes economically feasible, stated the architect.

Electrical and plumbing layouts are alike in each unit. That operation can be simplified because much of the cutting and some difficult assembly operations can be done in the shop.

Each unit has six and one-half rooms and full basement. The first floor has living room, dining room, kitchen-breakfast room, and a half bath. The upstairs has three bedrooms and a full bath.

Air conditioning planned for the dwelling is a 2-ton unit. Water will be used to cool the condenser. Low Chicago water costs make this operation the most economical, stated the architect. The heating "twin" of the single package cooling-heating Weathermaker will have a heating capacity of 110,000 B.T.U.'s input. The installation makes it possible to change from heating to cooling or back by a flick of a switch. Both heating and cooling can be turned off insmild weather and the Weathermaker can be operated on the fan. The manufacturer stated that this will circulate clean filtered air throughout the house. Ventilators, however, are provided under the fixed glass windows so that natural cross ventilation may be obtained when the unit is off.



Layout shows "Cross" arrangement and party walls. Utilities are grouped at the center of the "cross" to reduce costs. Each dwelling of 22x32 feet has ample sized rooms. The first floor has foyer. living-dining room, kitchen-breakfast room, and one-half bath. Second floor has three bedrooms and bath



- Brooklyn, New York

 Brooklyn, New York

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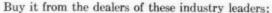
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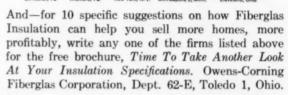














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plan for OUTDOOR LIVING—

home buyers want it

Terrace...patio...lanai... garden room...they are all more important than ever in the design of American homes

ONE of the most important rooms in the dream house of American home buyers isn't a room at all, strictly speaking. It's that space, semi-enclosed or open, which the builder has correlated into the over-all plan for the house and made suitable for use as an outdoor living

The increasing importance of "yard design" keeps turning up whenever a survey is taken of the desires of home buyers. One of the most thorough of these surveys, taken recently by the Coleman Company, showed a growing interest in outdoor living. Only 32.9 per cent had a patio, play-yard or work-yard, but 77.3 per cent wanted such space. Only 27 per cent had a back or side porch, but 48 per cent wanted one.

There is another influence which is emphasizing outdoor living space, and that is the prevailing tendency to design houses with large glass wall areas at the rear or side of the house. For the average situation, simply a view of the back or side yard is hardly enough. These window-walls must be related in an organic way to an adjoining terrace or patio or enclosed yard section of some sort, toward which the life of the house flows naturally and pleasantly.

On these pages are displayed a number of arrangements for outdoor living. They have "idea" value, and have been carefully chosen to illustrate the main types and to clear the air a little on definitions. What is the difference between a "terrace" and a "patio," for instance? And when is a patio a "lanai?"



a PATIO is a courtyard

The term "patio" is generally used to describe almost any kind of a space for outdoor living, from a simple terrace next to the house to an elaborate barbecue-pool arrangement not connected with the house at all. Somehow, in the public mind "patio" expresses the whole idea of leisurely enjoyment of the out-of-doors as part of living in a house.

Actually, though, a patio is an open courtyard formed by two or more wings of the house. In its purest form, as seen in the historic Spanish adobe structures of California and the Southwest, the patio is often an inner courtyard, open to the sky and completely contained within the house.

The three unusual houses shown here have taken the true patio scheme and adapted it for today's house.

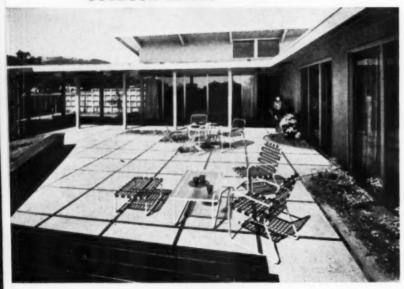


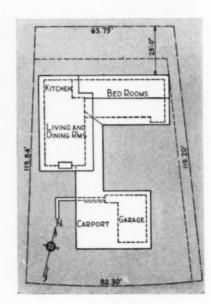


This custom-built house in Fort Wayne, Indiana, literally bends itself around outside space to create a patio living room which is an extension of the glass-walled living-dining and activity rooms. Builder is John R. Worthman.

Paving is of Indiana limestone cut in irregular shapes and set in sand. This is an expensive method. An unusual fence construction using regular siding boards closes off the fourth side of this patio, giving it complete privacy.

OUTDOOR LIVING

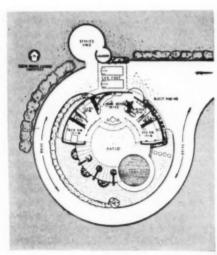




By placing the garage-andcarport at the front of the lot, then connecting it to the house by an attractive covered walk, a patio is created for this \$25,000 house built at San Mateo, California by the

David E. Bohannon Organization.

Window walls of living-dining room and bedroom wing open onto patio. The patio is paved with special round aggregate concrete. The surface was sprayed before setting to check setting of the top oneeighth of the surface. After setting, the surface was washed off with a hose and brushed to remove loose concrete, leaving small, round, clean aggregate exposed.





THE design for this unique circular house in Ontario, California actually began with the patio. The family wanted a patio facing south with the house built around it in a U-shape. After experimenting, the geometry of the circle was seen to give the best solution.

The house itself is semi-circular in shape, but the three pylons connected with it carry out the line of the full circle. These pylons serve only to complete the design and to give sun-protection by their framework and hanging vines. The patio is turf circled by 4-inch concrete.

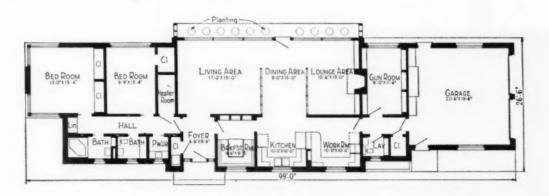
Construction is pumice block, painted inside and out. Floors are concrete stained red, with radiant heating coils embedded in them. The house has about 1,550 square feet of living space and was built for \$7.70 a square foot. The architect was Foster Rhodes Jackson.

TERRACES are simple and effective

PERHAPS the simplest form of outdoor living space is the terrace—an open or roofed strip alongside the house. Chief question will involve the material to be used for paving. There's a wide choice of suitable materials, including asphalt, flagstones, brick, concrete, tiles, adobe blocks, even soft materials such as tanbark, gravel, or crushed brick.

Flagstones will probably be the most expensive and also the most permanent. Asphalt is inexpensive. durable, but stores heat and will soften in hot weather. Bricks are easy to put down, are pleasing in color and pattern, but are hard to clean and may disintegrate under freezing weather. Concrete is much used, can be poured quickly and inexpensively, offers various textures and colors. Tiles are expensive but just the thing for a terrace floor which is a continuance of an inside room. Adobe blocks are inexpensive to lay, and last indefinitely when they contain an asphaltic stabilizer.







This long, low rambler in Cherryvale, Kansas is oriented to the rear of its plot by glass walls facing a simple terrace paved with concrete in irregular shapes. Architect is Thomas F. Holifield.

OUTDOOR LIVING



The small, basementless house can effectively gain storage space by adding a storage room to the terrace plan. This house built by Carl M. Freeman, Inc. in Washington, D. C. is an excellent example. The storage room not only has utility but creates extra privacy for the terrace. The terrace was paved with brick, to complement sidewalls, at a cost of \$310.

Designed by Robinson Heap, this house won a Parents' Magazine Award of Merit for best homes for family living. Its price was \$14,950.

The difference between terrace and no terrace is vividly demonstrated by this transformation of a house in La Jolla, California. A red concrete slab was poured for the terrace floor. The terrace framework carries a roof of brightly colored Alsynite translucent plastic panels.





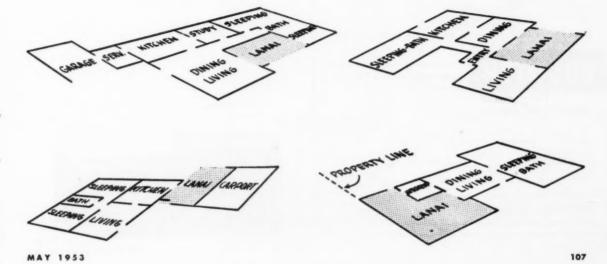
the LANAI comes from Hawaii

Borrowed from Hawaii, the lanai is a kind of glorified porch—an outdoor living room more used than the living room proper, and often an extension of it. A lanai is always enclosed on three sides and roofed, thus affording more protec-

tion from the weather than does a patio. It is often associated with special living purposes and can be extended from kitchen or bedrooms as well as from living or dining rooms. Sketches here suggest possibilities for including a lanai in floor plan.

The photograph shows a true lanai as seen through the sliding glass doors of the living room of a house in California. Here the lanai is related to both the living room and the swimming pool center of activity.







WHICH HELD?

Nails like this?
or staples like this?

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Long Island homes caught the full fury of the hurricane. Winds rose to 100 mph. Roofing was torn loose and asphalt shingles filled the air like autumn leaves.

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a GARDEN ROOM inside the house



This small house in Corpus Christi, Texas shows what can be done to bring the outdoors inside. A 16x14-foot screened garden roof with a concrete slab floor laid around a 6x8-foot planting area adjoins the living room and breakfast area. Privacy from the outside is assured by one-way vision, floor-to-ceiling, aluminum screens. Supplementing the screens is a grille-type fence built of redwood boards staggered at angles to permit free air flow and also assure privacy. The fence is built along one side of the garden room and extends, along with the roof overhang, three and one-half feet beyond the front wall of the house.

Ned A. Cole is the architect. The house was built by the Westchester Construction Co. Its price was \$11,200.

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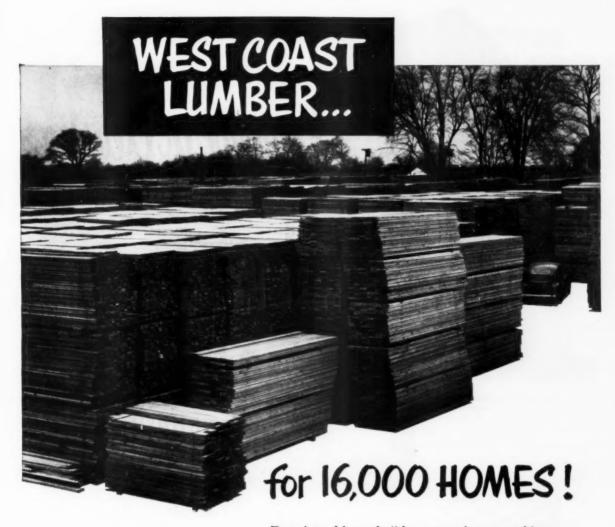
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Saint Louis Roman Catholic Church, Princeton, Illinois: Zonolite Concrete provides a warm, dry, comfortable floor according to Rev. Father Edward M. Farrell. Architect: A. F. Moratz, Bloomington, Ill. Lincoln Park Community Church, Lincoln Park, Pa... Zonolite light-weight Plaster Aggregate used throughout. Architect: George Savage, Philadelphia; General Contractor: Securda & Company, Lincoln Park, Pa.; Plastering Con-tractor: William Fitterling, Sink-

North Shore Baptist Church, Chicago, Illinois ... Zonolite Acoustical Plaslin Olson, Chicago; Plastering Contractor: Kjellberg Plastering Co., Chicago.



ing Spring, Pa.

Adas Israel Synagogue, Washington, D.C. . . . Zonolite insulating Concrete used under radiant heating coils in the floors. Architect: Frank Grad & Son, Washington, D. C.





ZONOLITE COMPANY

135 S. LaSalle St. . Chicago 3, Illinois . Member of Vermiculite Institute

n church construction-where fire safety, sound absorption, warmth and dryness are important to the comfort of the congregation—the five architects whose work is shown here, turned to the outstanding benefits of Zonolite Vermiculite Aggregates or Zonolite Acoustical Plastic to achieve the best results in their building projects.

Here is how these products can make your next church job-or any job-outstanding.

Zonolite Concrete Aggregate: - Here Zonolite is used to insure warm, dry concrete floors, with or without radiant heating and for lightweight roof deck construction with insulation built right in. Poured over paper-backed wire mesh, high rib lath, or other suitable forms, it eliminates the need for additional roof insulation and is permanent as well as firesafe.

Zonolite Plaster Aggregate: - Accorded fire ratings up to four times as great as sand plaster, Zonolite is the perfect choice for interior finish. One-third the weight of sand plaster-speeds construction time.

Zonolite Acoustical Plastic:- The most efficient, low cost sound conditioning, trowels on just like plaster over any clean, firm, water-resistant surface.



City.......Zone.....State..... Architect D Engineer D Spec. Writer D Contractor D

Other....

MODULAR PRINCIPLES

in specialized use of the saw

chapter 16 — roof rafter notching compound miter cuts

By Griffith S. Clark

CUTTING on the modular saw table of all framing members in mud sills, box sills, joists, headers, plates, walls and ceilings of a house can be done with the three stop blocks described in the March installment of this series. But there are instances when fractional cutting will require a saw setup using a different set of stop blocks.

With the help of the 4-inch modular control, a series of eight stop blocks made in the same manner as the other set makes it possible to cut any fraction of the eighth-inch increments. With the addition of screw adjustments to obtain a sixteenth-inch setting, any fractional cut can be obtained with this system.

In this series of eight stop blocks, one should be made so that the extension on one end is exactly two inches from the center line of the nearest dowel. The other end should be cut so that the face for the stop is exactly one inch from the center line of the other dowel. This block will then be prepared for accurate cutting of all dimensions ending in even or odd inches.

The second block should be made with one end $2\frac{1}{8}$ inches from the center line of the nearest dowel; the other end $1\frac{7}{8}$ inches from the center line of the other dowel. This can then be used to cut dimensions $\frac{1}{8}$ inch short of 2-inch increments or $\frac{1}{8}$ -inch more than odd-inch dimensions. The adjustment screw in the end of the block will take care of $\frac{1}{16}$ -inch dimensions.

In like manner, the other six blocks should be made with the following end-lengths from the nearest dowels:

21/4 inches and 13/4 inches;

 $2\frac{3}{8}$ inches and $1\frac{5}{8}$ inches;

2½ inches and 1½ inches; 2½ inches and 1¾ inches;

25/8 inches and 13/8 inches; 23/4 inches and 11/4 inches;

27/8 inches and 11/8 inches.

This system will operate satisfactorily for any type of shop operation, whether it is house fabrication, trailer fabrication or cabinet assembly. It will save the automobile trailer industry valuable time if and when it decides to plan on a 2-inch modular basis. House fabricators using wall assembly of studs on the flat with a nominal 2-inch wall, rather than on edge with a 4-inch wall, will find similar savings.

Accurate Rafter Cuts

In cutting common rafters, accuracy is essential. A well-cut rafter fits the ridge snugly along the entire length of the face cut. This rafter also rests completely over the whole length of the level cut on the plate. The height of dimension "J" (described in the chapter on common rafter calculations, January, 1953) must be uniform for cornice treatment. When no birdsmouth is required, the ridge cut, end or plumb cut and level cut can all be made with one handling of rafter stock.

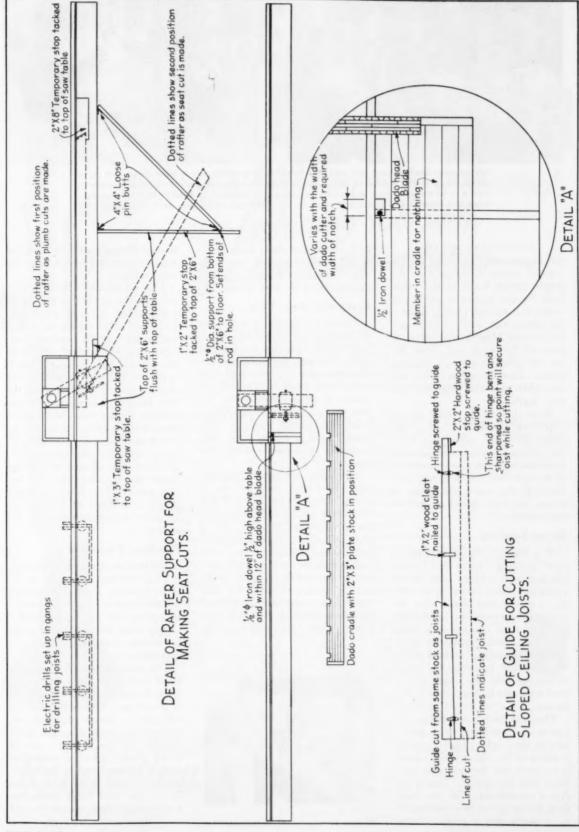
In the "Detail of Rafter Support for Making Seat Cuts" sketched on the next page, the radial saw is set for the ridge and plumb cuts of a common rafter. The stop block is a 2x8 notched to fit the cut to be received with a bevel undercut and a notch to hold the rafter firmly in position. This block may be made from the dropoff of the rafter stock with a 1x2 nailed on the face to form the notch and prevent creep. If enough rafters of the same size are to be cut, tack this block in place and bore two ¾-Inch holes, 8 inches apart and 3 inches in from the backstop. Insert the dowels and fasten to block. This makes a permanent stop which may be removed and reused.

Attach the 2x6 frame of two pieces as shown on this plan with 4-inch loose pin butts, the top edge being in the same plane of the saw table. This frame should be set far enough to the right so that it will not interfere with the sawyer. Retract the saw, Scribe on the common rafter the level cut by obtaining the "J" dimension from the Wilson Rafter Table (see Modular Principles, American Builder, January, 1953), at right angles to the end cut.

Place the rafter in position with the top edge of the end cut against the backstop and move the rafter as a radius until the scribed line of the level cut coincides with the saw track. Nail the 1x3 temporary stop to the top of the saw table and the 1x2 stop on the top edge of the rafter support as shown. You are now ready to cut common rafters.

Calculate the length of the rafter from the Wilson Rafter Table. Set

(Continued on page 118)







Special rafter notching head (left) and dado head (right) on radial saw to make birdsmouth cut in rafters. Chain feed is needed to obtain a smooth cut by controlling centrifugal force. Operator at right is using a clamp hinged to backer board. These photographs, furnished by DeWalt, Inc., were taken at a Barrett & Hilp project in Portsmouth, Va., when roof rafters were cut for 70 houses daily

(Continued from page 116)

the saw so that the gauge on the vertical vernier coincides with the degree setting listed in the rafter table for that particular pitch. For instance, if a 6-inch pitch is desired, the setting will be 26 degrees and 34 minutes. Make a trial cut on a piece of 2x6 stock and check the cut for accuracy with a framing square. Pass the rafter down the saw table after the ridge cut has been made.

When this cut fits neatly in the stop block, cut the end cut of the rafter. Turn the rafter over sideways, fit into position as shown and make the level cut. In this manner, all of the rafters will be exactly uniform. If the rafter stock has a crown, the belly should be against the backstop.

Rafter Notching

If a birdsmouth is required, a rafter-notching head is used in conjunction with a chain feed on the radial saw. This device is, in reality, a countersunk dado, with the cutting blades extending beyond the arbor, and is attached as shown above left. The horizontal vernier is placed at the setting outlined in the Wilson Rafter Table and the motor is lowered until the length of the level cut in the birdsmouth is 3^{13} /16 inches

The chain feed is essential to this operation. Centrifugal force generated by the notching head transmits a thrust to the motor which causes it to "walk into the cut" with such force that the operator cannot obtain a smooth cut. With the chain feed, his thrust can be controlled. It is necessary that a hinged clamp,

such as that seen above right, be attached to a backer board for a backstop. This backer board prevents a ragged cut on the first rafter.

Compound Miter Cuts

The set for compound miter cuts is illustrated at the bottom of this page. In all such cuts for hip and valley members, the horizontal vernier is set at a 45-degree angle and locked into position. The vertical vernier is set according to the degree setting outlined in the Wilson Rafter Table under "hip and valley rafters." For a 6-inch pitch, this would be 19 degrees and 29 minutes.

Accumulate all usable dropoffs from rafter stock sizes, for use in cutting common jack, hip jack and valley jack rafters. All hip and valley jacks are cut in pairs; one of each pair with a right hand bevel and the other with a left hand bevel. Common jacks are cut singly and therefore should be cut last from the smaller remains of stock. Hip and valley jacks should be cut in pairs from the same stock. Make the compound miter cut approximately



DeWalt Photo

Position of saw for compound miter cut

through the middle of the stock and stack in pairs to be trimmed to the ridge cut later.

After all pairs of jacks have been cut with the setting for the hip or valley rafter, which is the rise in 17 inches, return the saw to its normal position on the horizontal vernier. Reset the vertical vernier to the common rafter ridge cut, which is the rise in 12 inches, and cut the shortest pair of jacks. Replace the stop block by increasing the distance an amount equal to the increment of rise in 16 inches and cut the next longest pair. Continue this operation until the cutting is complete. The level cuts will only be required on the hip or valley rafter and hip jack rafters. The same procedure should be followed on the level cut for these rafters as previously described.

Flat Roof Treatment

The trend to flat roofs with a substantial overhang seems to be increasing. Many areas of the United States will allow a single member to be used for the roof rafter and the ceiling joint. The detail of a guide for cutting sloped ceiling joists is sketched on page 117.

This guide is actually a carriage which carries the stock. The saw is set in the rip position and the stock is placed on a bias so that the rip will give a gradual diagonal cut, making two joists from one stock member. On this device, a pair of 4-inch trunk hinges are used. One section of the hinge is firmly attached to the guide with wood screws. The other hinge section has a right angle bevel toward the end

(Continued on page 120)

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EMERSON EMISSING ELECTRIC FANS - MOTORS APPLIANCES

MODULAR PRINCIPLES

(Continued from page 118)

of the hinge. When the member to be cut is positioned on the guide, give each hinge a firm lick with a hammer so that the deformed end bites into the stock and secures the piece well for stable positioning while ripping.

There are various other devices which have been developed for saw use which will not be considered here, but one, at least, should be mentioned. It has to do with an operation occurring in lightweight construction, where 2x2 studs are used with a 2x3 top and sole plate. In order to get the best support from these pieces, the 2x3 plate should be dadoed to receive the 2x2 studs. Since the 2x3 plate is 25/8 inches wide, the 2x2 stud should be let into the plate 1 inch so that a single nail driven through the plate will bite into the stud with sufficient length to provide enough withdrawal strength to secure the stud in position.

NEXT MONTH'S ARTICLE will consider gambrel roofs and their relationship to modular control.

Detail "A" sketched on page 117 shows a typical carriage. A firm attachment is required in the saw bench for a half-inch iron or steel dowel which can be removed. Let in a 1x¾-inch steel strap through the top of the saw bench. This strap should have a threaded hole of a size to hold the dowel, which should be located close to the backstop and within 12 inches of the travel area of the dado.

The cradle should be notched to receive the dowel at required intervals. The notch will engage the dowel while the dado blade is passed back and forth across the plates. Width of the notch will be determined by the width of the required notch in the plate, size of the dowel and width of the dado cutter.

A separate jig will be required for each pair of plates, but the accuracy obtained and the speed of the operation makes this device a very valuable feature.

"Our Mosaic Tile wins compliments from everyone

... and we never have profit-draining repair bills," savs Edward C. Ahlers, Cincinnati builder.

Edward C. Ahlers, V. P., The Wood Realty Company Cincinnati, Ohio. Since 1946, this firm has built over 250 homes in Wooddale Subdivision, Cincinnati, Ohio

"Like all good builders, we are quality-conscious. Our reputation depends upon the appearance and performance of the materials we use. That's why I'm happy to put in my word for Mosaic Clay Tile.

"Our experience with Mosaic Tile has been good. Our customers like it and appreciate their tile baths and kitchens. During the years

we've used Mosaic Tile, we've had less trouble than with any other material. Our tile contractor knows his job, and Mosaic makes good clay tile.

"In our book, Mosaic Clay Tile is the finishing touch to the homes we build. We've found that its permanent beauty makes our sales job easier, our profits greater."



"With home upkeep costing so much more these days, I'm certainly glad to have tile in my bathroom," comments Mr. Theodore Deutschman, 7969 Bobolink Drive. "It means less future expense and work for me.'



"Careful as I am", says Mrs. Deutschman, "grease will splatter on my walls when I cook. This is no problem for me as my walls are Mosaic Clay Tile, the easiest material in the world to clean.



"How do I like Mosaic Tile?", asked Mrs. Edward J. Rieman, 8039 Bobolink Drive. "I think it's wonderful. It makes my kitchen so bright and cheery, and so easy to keep spotlessly clean.

Give your customers Mosaic Clay Tile. It helps sell your houses faster, makes your buyers happier. See Mosaic Clay Tile today at your nearest Mosaic showroom, or at the showroom of your Tile Contractor. For tile-fact literature, write Department 35-10, The Mosaic Tile Company, Zanesville, Ohio.



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'My bathroom is always as fresh-looking as my linens. Nothing harms my tile walls and floor. If anything spills, I just wipe it up."

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Figures show that building the Gunnison way can cut your over-all construction costs as much as 20%. This terrific economy and its resulting competitive edge come from a saving in on-the-site time and labor through factory prefabrication.



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This liberal arrangement allows you to finance not only the cost to you of the Gunnison Home, but an additional 25% of the package cost as well-all on a 90-day note. Fast erection the Gunnison way enables you to have the home ready for occupancy long before the note matures. Thus you have less money tied up for a shorter period.



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Gunnison Homes has established seven district offices at strategic locations. Each is manned by specialists ready to give you every assistance with your problems of home erection and home sales. Offices are located in Atlanta, Ga.; Chicago, Ill.; Columbus, Ohio; Dallas, Tex.; Louisville, Ky.; Newark, N. J., and Omaha, Nebraska.



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An extensive advertising program in national magazines is telling home buyers of the values they'll find in Gunnison Homes and is establishing the Gunnison name as a standard of quality. And Gunnison Homes' relationship with United States Steel Corporation is an added sales feature.



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path to profits"

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To assist you in your development work, Gunnison Homes' staff includes financial specialists who will assist you in dealing with your lending institutions. You'll find their services helpful in making arrangements to finance specific development projects.

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All the decorating help you need is available from Gunnison's Home Planning Service. Paints, colors and fabrics are suggested in modern taste for these truly modern homes. And complete furnishings packages are available to you at extremely low cost for use in your demonstration homes.

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It's a line so extensive that you can build a project of 50 homes or even more without a single duplication. This great Gunnison line is based on four different models — the new "Talisman" and better-than-ever "Champion," "Coronado" and "Catalina"—each with several sizes and a choice of exterior treatments. 72 elevations in all.



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Gunnison Homes

Manufactured by Cunnison Homes, Inc., New Albany, Indiana

"Gunnisen," "Champion," "Coronado," "Catalina" an

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Go up in 9 seconds . . from inside!



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Use this PROOF chart	You	No	Yes	No	Yes	No
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Self Centering form work rests directly on joists no additional support needed	1					
Conceals Conduits saves space. Ceilings attach to joist, eliminating suspended ceiling	4					110
Fire Resistive ideal with incombustible top slab and metal lath plaster ceiling	1					
Sound Resistant with concrete slab above and plaster ceiling below	V				941	
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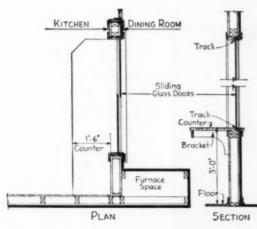


IDEA of the month



Kitchen side of the pass-through has an 18-inch by 8-foot long breakfast bar. Unit is large enough to accommodate four persons

Breakfast Bar Pass-Through





In the trend toward open planning this kitchen-dining pass-through is a first step. Dining table can be placed next to opening. Patterned glass panel slides across opening to shut kitchen from view

KITCHENS, always scrutinized by the buying public, are many times in need of an outstanding feature to increase their sales potential. This simple pass-through and breakfast bar, at table height, can deliver that impetus. This "Idea of the Month" is from the 1953 house of Fritz Burns, Los Angeles builder. The house design was created by Architect Henry J. Friel.



LOCATION: Syosset, N. Y.

BUILDERS:

Irving Warfield, Gus Tarlofsky

ARCHITECT:

A. H. Salkowitz

Demonstration walk where all prospective buyers pass on their way to the models. Many of the materials and equipment featured in houses are displayed here "under roof"

how novel exhibit techniques helped sell 173 three-bedroom houses in three weeks

IF you've really got something to sell, an attractive displaylined walk leading to your models will do the job quickly and most thoroughly, believes Irving Warfield, now building the 515-home

Southwood project at Syosset, N.Y.

Inside of three weeks, he said 173 houses were sold; in less than two months, the builders had not only obtained 363 contracts but also more than enough applications for remaining units on sites still to be mapped out.

Besides the basic strong point of a 1,000-square foot house with carport and 65x100-foot or larger plot for \$9,990, the project offered several new and interesting features. However, it was right in the middle of one of Long Island's most highly competitive low-cost areas.

Use of the demonstration walk was the real sales clincher, accord-



Distinctive welcome sign invites the home hunter to step in and study house values

SOME BRAND NAMES PRODUCTS USED AT SOUTHWOOD

Briggs colored bath fixtures Fasco exhaust fan Formica counter tops

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Kentile flooring Libbey-Owens-Ford Blue Ridge Linex giass and Thermoplex windows

Martha Washington electric range Royal kitchen cabinets

Schlage hardware

U. S. Gypsum rubberized paint and rackwool insulation
U. S. Plywood Novoply sliding door

York oil-fired radiant heating unit



Low-pitch roof covers oversized carport



Covered terrace shades wide living room window



Basic floor plan, with dotted lines indicating wide roof overhang



Two-way fireplace and adjoining brick partition effectively divide kitchen, dining and living areas

ing to Warfield. It stopped home hunters on the adjoining busy highway, acquainted them with features such as the two-way fireplace, oversized carport, colored tile bath. It disclosed the use of colored asbestos sheet siding for the first time on Long Island; told of a new rubberized paint permitting easy removal of dirt without dulling the finish.

This silent salesman made sure every prospect knew what to expect when he entered the models. It answered questions that might otherwise never have been asked, provoked more questions directed to the sales agent, and thus removed much of the doubt in the minds of naturally hesitant buyers.

The builders found their supervised play-ground paid big dividends. Junior was content to play while his parents gave their attention to the models





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Entrance to Mr. Henry Doelger's smart new Westlake project. One of California's largest building efforts, planned to contain over 10,000 family units, Mr. Doelger's Westlake will be an entire new "city."•

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Moreover, Mr. Doelger knows that Crosley products not only sell prospects but keep them sold as well. Crosley equipment is engineered for durability . . . "kitcheneered" to fit into compact work-saving units that buyers learn to appreciate more and more every day. And that's mighty important to a builder's reputation.

So take a tip from this "dean" of the building trade—Mr. Henry Doelger. Let Crosley's Kitchen experts help you plan a kitchen with real built-in sales-appeal and buyer satisfaction.



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Shelvador® Refrigerators - Shelvador® Freezers - Electric Ranges - Range and Refrigorator Pantries - Automatic Dishwazhers - Clectric Water Maaters - Electric Feed Waste Disposers Sinka - Steel Wall Cobinets - Steel Base Cabinets - Vivoy-On-Steel Continuous Counter Tops Handy Accessories - Television - Radies - Reem Mr Conditioners Builder Sales, Dept. AB-53, Crosley Div., AVCO Manufacturing Corp. 1329 Arlington Street, Cincinnati 25, Ohio

Please send complete information on all Crosley products to:

Name_____

Company

Address

City_____State____

3 115

1. Notice how Keymesh is lapped and covers the entire ceiling surface. This assures smooth, long lasting plaster where it is most desired by builders, contractors, architects and owners.

2. Keybead protects the outside corners against nicks and cracks and makes an easy-to-follow plaster thickness guide. Outside plaster corners are more easily made with the help of these Keybead corner beads.

3. Keycorner on the inside corner, on joints above and below the window, at the corners of the window and at the entire ceiling-wall juncture provides the extra assurance against plaster cracks usually occurring at these areas.

to guard against plaster cracks

- 1 KEYMESH on ceilings
- 2 KEYBEAD on outside corners
- 3 KEYCORNER on inside corners, joints and ceiling-wall junctures

KEYMESH applied on the entire ceiling area of any room assures more crack-resistant plaster surfaces. Because stresses and strains are distributed more evenly, longer plaster life results. There is no limit to the interior design and construction possibilities when ceilings are completely Keymesh reinforced. Keymesh also provides strong plaster reinforcement, with desirable heat transfer properties, for ceiling radiant heat installations.

KEYCORNER applied at corners, joints and ceiling-wall junctures prevents future plaster crack troubles. Its preformed-for-corners, convenient width and easy-to-handle features provide fast, economical reinforcing exactly where needed. It snaps into corner shape by merely flexing the cut piece. And, Keycorner lies flat, too, for flat joint reinforcing.

KEYBEAD produces strong, economical "true" outside plaster corners. The open-mesh design of the Keybead wings permits plaster to flow through the steel wires and give a generous bond of plaster to lath . . . a solid plaster corner results. This thorough steel wire embedment combined with the true-formed bead makes strongly reinforced, more highly crack-resistant outside plaster corners.

THE COMBINED USE of Keymesh on the entire ceiling area with Keycorner at inside corners and joints and Keybead on outside corners, results in trouble-free, lasting plaster beauty . . . a valuable selling advantage to plasterers, lathers, builders, contractors and architects alike. It promotes greater owner satisfaction—more quality plaster jobs.

KEYMESH

3' and 4' widths, 150-ft.rolls, Galvanized KEYCORNER

4", 5" and 6" widths 150-ft.rolls, Galvanized KEYBEAD

7', 8', 9', 10', 12' lengths 2½" wings, Galvanized. Packed in convenient cartons

Other gauges and sizes available

KEYSTONE STEEL& WIRE COMPANY

Peoria 7, Illinois

KEYMESH • KEYCORNER • KEYBEAD • KEYSTONE NAILS • KEYSTONE WELDED WIRE FABRIC • KEYSTONE TIE WIRE • KEYSTONE NON-CLIMBABLE FENCE • KEYSTONE ORNAMENTAL FENCE

4293 Bandini Blvd. Los Angeles 23, Calif. 930 19th Ave. Oakland 6, Calif. 1800 N.W. 16th Ave. Portland 9, Oregon

1544 First Ave., South



do you know how to organize your business?

this form is the BUILDER'S "JOB BIBLE"

This is an elaborate and comprehensive form which deals with the most difficult phase of building—cost and progress control. It is designed to list absolutely everything that goes into the house and so prevent omissions when figuring in-progress costs. It can be as useful to the merchant builder as to the custom builder.

The "Job Bible" is basically an all-inclusive estimate form that assures thoroughness, time saving, avoids confusion and keeps the builder on top of the job from start to finish. The 25 classifications covered are set up in an orderly job-sequence and conform to the classifications in the bookkeeping system. If properly used and filled out, this form will eliminate much lost time in searching through specifications, plans, owner and subcontractor contracts, loan applications, etc. A set of plans plus the "Job Bible" is

Owners		Lot	Size	
Occupation	At	Blde	. Set Back	
Owners Present A	Off Contr ate-Estad Actua	Wher	e Loan	
Owners Phone-Res	Off	Elec	t. Service-City	
Dates: Estm	Contr	Esta	оу	Plas
Job completion d	ate-Estad Actua	d Gara	ge (Att) (Det)_	Car
Job Add				
Job Add_ Legal Descr			ing Hts-Basent	
		Gene	ral House Descr	pt:
5				
		l'ake-		
		Style-		Matl
		Type-	Quantity Rate	Ze tm
MISCL. COSTS:		20.		-
Permits	Caulking			
Puel	Caulking Vater		-	-
			-	
Misc. Labor &	Matl: Shrinkage			-
Hauling	5 Shrinkage			
Ine. (Haz)	Bonds			
PREPARE SITE				
Survey				
Removals				
	rade Filling			_
			-	_
EXCAVATING (Bul	k) Basm't Depth to D	1g		
				-
			-	-
Partial Excav			+	-
Leave on Site			+	+
) Loave on Site			+	-
SEWER & DOWNSPO	OT TILE		+	-
Tunneling				
Ceptic Tank				_
Disposal Bed				
Sewer Permit				
6				
7 DOWNSPOUT TIL	E			
S Drains to: Ge	r_Areaways_ Yard			
9				
FOUNDATION Slat	Sq! HseGar			
l Soil Handling				
2 Trenching: De	pth Lin ft			
MWTIR: SOOFIL	ge Yde			
4 8 Thick				
5 10 Thick				
6 Form Labr &				
7 Forming	Waterprig			
8 Underfill				
9 Insulation O Steel: Place				
O Steel: Place	V H Size_			
1 Mesh	Paper			-
0 2-2-				
1 Mesh 2 Bolts	Miscl.		-	-

just about everything the job superintendent will need to function at top efficiency.

Not every job will require every service of the form. But taken as a whole The "Job Bible" can function as:

 A check list for listing a client's preliminary preferences and decisions during the designingselling stage of custom building.

(2) A job digest covering all

vital statistics about the job (see Sheet 1, across top).

(3) A tool for rough estimating, which works in three ways: (A) Review checked-off items, then use the cost-per-square-foot method. (B) Place lump-sum figures only at the 25 major classifications. (C) Use a portion of the detail columns with a combination of (A) and (B). For rough preliminary estimating, the

(Continued on page 136)

P <u>oc</u> e 1							Jos	в но		
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28ty				Forch Garage					1	3
				TOTAL					15	5
	tal Actual	CONST	RUCTIO		OGRE		FORMA	TION	10	
LABOR La	bor Origin	al Estimate	From Origin	nal Sour	ce	Order Rec'	Com-	d Final	Nemo 19	
	tm. Cost	Over Under	EXTRA III	FTF Sub-		Date Date		OE	20	
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g Driv	re Excav.				. 8		A	epara	te sec	lion
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12 See	ding				11	Netal Ar			ork an	
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	ont_				2) 2	CARPENTRY	- Rough (
26 Re	MI				2	6 PINISH	CARPENTRY		***	
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29 T	ry fill				3	9 Mails				
31		t				1 Rough 2 Finish	(allow.)			
33 C	oncrete					3 Sliding	Hdwe			
35 S	ide Curbs				(14) 3	5 SHEET MET	AL: Style_	н	at	
37	treet Curb	Appro.			3	7 House_		Gar_		
(9) 38 MASO	t. Valle				_ 3	9 Mtl Roo	fe		Chute	
40 Fo	undation					l Flashin	ts: Dryer_ Chimne		ther	
142 Ma	s. Sills_					2 Valls 3 Other				
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146	S. Trim				1	16	VAN es			
		CHIMNET			- 1	7 INSULATIO	N: Kind			
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51		Tace_				1 52 PLASTERIN		J-So ft		
53 Ma	antel				_ 5	Where	G - DEIWA	- oq.16.	Ger.	
55 He	earth	Firecl				5 Lath or	Sheets:	Thick	Yds	
56 P	lue Liners:	Sx12 lintel			_	7 Tds of	Metal Lati	h.		
58 C	leanout Dre	Color	DumpsSand			8 Plaster 9 Taping	Joints_	Color	w.c	
60 0	rnaments	Caps			_ 6	50 Sheet	rock nails			
62 C	creens					52				
63 L	abor					64				
-										

	-		_	1		
Sheet 4	Make Style- Type-	Quantity	Rate	3	Sheet 5	
6 PLUMBING: Fixtr. Color	No.			2	Int. Paint Tria cts	
7 Rm. Stool Lav. Th	пр	Shower (& Rod	1		
9				9		_
10 (2)				10		_
12 (3)				12	Ploor Sanding	_
13 14 Bink				13		-
Sink					GLASS: Vdvs	
17 Softar Cap				16		
18 Ldry Tube-Size Where 19 Supply Lines - Kind		-		18	8	
20 Kind Waste Lines Soil Lines				19		_
21 Connect Appliances 22 Water Curb Box - at Size				21		
23 Service LineMatl Size				22	3	
24 Gas Lines-O.S. I.S. to			_	23) 21	LINOLEUM & TILE: (Walls & Floors)	
26 Well Pump				26		_
25 26 Well Pump_ 27 Plumber & Estm				5.		_
29 BATH WALL ACCESSORIES LAV	Comb	Towel		25		
30 Rm. Paper Tumbl Soap	S&G	Sare		30	0	
32 (2)				3	2	_
33 (3) 34 Med. Cab (1) (2)		(3)		33	3	_
THE THEORY OF THE A TOPAC A		0/		31		_
36 Circuit Brke				36	6 (at	
37 Switches Plates 38 Signals at		-	-	31		_
39 Tard or Flood				35	9	
40 Kitchen Fam				143	O Ceiling Tile	_
42 Wall Heaters at				(24) 4	2 APPLIANCES: Range Rfg	_
43 Radio-Sound-Phone 44 (Power Serv. to: Range V.Htr				4	3 Wesher Dryer	
45 (Dryer Other				145	5 Other	_
46 Connect: Furnace 47 Garage Drs.				144 147	6 Shades & Hdwe	
us Underground Serv.				141	8	
50 FLECT. FIXT. (Allow.)			-		9 MON-CO: STRUCTION COSTS Overhead on Pay Roll	_
51				51	1 Grass Income Tax	_
52 MATING: Plant placed at 53 Fuel Contr.		-		5		_
54 Rms. Unheated				51	4	
55 Registers 56 Controls		-		55	5 SUB-TOTAL	_
Of Tanks				5	7 DETORARTON	
58 59 PAINTING: (H & GLF) Contr.		-		56	8 ELDG. CONTRACT 9 PLUS LAND COST	_
60 Ert (Fri.e				60	0	-
61 cte Final		-	-		ALLOW. MORTGAGE EXPENSE	
b3 Int. Stain cts	-			61		_
64	The second second		-	61		

(Continued from page 134) right half of the sheet is often cut off, reducing it to letter size.

(4) A tool for detailed estimating in order to quote a firm price, in custom building and/or setting up final job operations file. The detail is also the basis for writing specifications, preparing detailed plans and mortgage cost-breakdown.

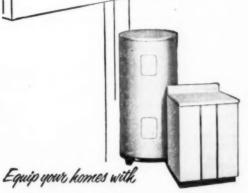
(5) As a job operations guide, the form becomes a vehicle to compare actual progress costs to estimates. It also distributes running change-order costs to right positions, furnishes order and flow status on material, labor and subcontracts with percentages completed.

(6) Cost control tool: field reports on costs, progress and delayed invoicing tie in with the accounting system, via the 25 classifications numbered in the form.

Best way to use this form is to make two copies, when construction is started, and put them in sturdy 2-inch loose leaf job-indexed binders labeled "Jobs in Progress." Keep one book in the office and give the other one to the job superintendent (he'll usually keep it in his car for constant and handy reference). Upon completion of the house, the "Job Bible" stands as a complete job history.



This is one of the Garden Park homes in St. Louis County selling for about \$13,000. The Electric Water Heater was chosen for safety and economy, for both the builder and buyer. It can be placed within five feet of any tap in kitchen or bath, so heat loss in use is minimized—and installation costs are reduced.



and Buyers

"I'm strong for *Electric* Water Heaters," says builder Albert Monte of St. Louis, Missouri, "because they have advantages for the builder as well as the buyer. They're economical to install as well as to operate."

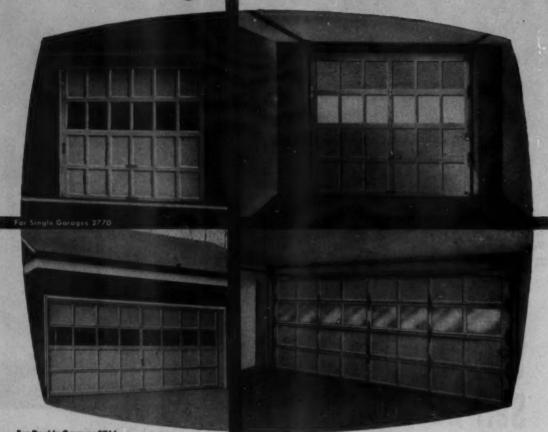
More builders and buyers all the time prefer Electric Water Heaters. Here's why: Automatic hot water. Cleanness of operation. Economy of operation, due to short hot water lines and fully insulated tank. Easy installation, because there's no flue or vent... the modern water heater for the modern house—of course, it's Electric!

electric water heaters

THEY'RE WHAT
PEOPLE WANT

ELECTRIC WATER HEATER SECTION National Electrical Manufacturers Association 155 East 44th Street, New York 17, N. Y. ALLCRAFT • BAUER • CRANE-LINE SELECTRIC • CROSLEY • DEEPFREEZE • FAIRBANKS-MORSE
FRIGIDAIRE • GENERAL ELECTRIC • HOTPOINT • HOTSTREAM • JOHN WOOD
KELVINATOR • LAWSON • MERTLAND • MONARCH • NORGE • PEMCO • REX • RHEEM
SEPCO • A. O. SMITH • THERMOGRAY • TOASTMASTER • WESIX • WESTINGHOUSE

NOW GIVE Every HOME THIS BIG SELLING PLUS ...



For Double Garages 2716

For Single Garages 2770

Available either 8 or 9 ft. wide by 7 ft. high. Headroom required 9½ in., sideroom 2½ in. each side. Track assembly block japanned, other hardware zinc plated.

Door designs: conventional — 4 sections high by 6 panels wide; or modern — 4 sections high by 2 panels wide, in 8 x 7 size; 3 panels wide in 9 x 7 size. Choice of ell-wood panels or with third section from bottom open for glass.

For Double Garages 2716

Available in 14, 15 and 16 ft. widths, all 7 ft. high. Headroom required 9½ in., sideroom 5 in. each side. Tradi assembly and all hardware block japanned (same quality as commercial conits). Door braces included, Ball bearing rollers with hardened steel raceways. Wheels milled from solid steel.

Door designs: conventional — 4 sections high, 8 panels wide; or modern — 5 sections high, 4 panels wide. Choice of all-wood panels or with one section open for gloss.



NEW LOW Cost STANLEY "ROLL-UP" GARAGE DOORS

Now at low cost you can provide your homes with the powerful selling attraction of "roll-up" garage doors that open quietly at the touch of a finger . . . that will give dependable, long-lasting service.

Here in the new economy-priced Stanley "Roll-Up" Doors you'll find many features that are usually offered only in high cost units. For example, you get torsion spring operation to assure an even pull on both sides of the doors. No binding or jamming here! You get braces with double doors to prevent sagging . . exterior grade plywood panels to withstand weathering . . . high quality Stanley hardware to provide lasting satisfaction.

To make installation fast and easy, doors come to you prepared for hardware. Headroom and sideroom requirements are unusually small—need less supporting framework, give you more flexibility in garage construction.

Find out more about these new Stanley "Roll-Up" Doors. Write to address below.

For the utmost in garage distinction and convenience, "roll-up" doors can be equipped with Stanley Push-Button Radio Centrol Operators. Garage doors open from a locked position when activated by button inside car, house or garage. Designed for 6 volt car buttory systems. (Also for late model cars with 12 volt systems on special order.) The low cost of this operator will ameze you. For free booklet, write to: The Stanley Works, 105 Lake Street, New Britain, Connecticut

HARDWARE . TOOLS . ELECTRIC TOOLS . STEEL STRAPPING . STEEL



This dining room, though near the entrance, has privacy and protection with plenty of light. Insulux interior partitions help you gain maximum utility from every square foot of area.

BUILDINGS, PLANNED OR BUILT, ARE GOOD PROSPECTS FOR Daylight Engineering



An Insulux Wall of Daylight will hide an unwelcome view gracefully, while letting in light, providing insulation and protecting privacy.

Planning new building? Find out how Insulux Walls of Daylight add beauty and efficiency to any type of structure.

If you wish to build a bigger volume of modernization work, practically every building you see—house, store, office or industrial—is a good prospect for a Daylight Engineering job.

Dark places, hallways, stairwells, etc., can be daylighted with privacy. Rooms that neighbors can see into, or windows that frame unsightly views can be daylighted freely, vision blocked.

For beauty, privacy, efficiency for your customers, and profit for yourself, give your homes the benefits of panels of Insulux Glass Block.

Start to plan now to use this versatile, practical building material in your homes. Write to Insulux Glass Block Division, Kimble. Glass Company, Department AB5, Box 1035, Toledo 1, Ohio, and get complete information about the many advantages Insulux can bring to the homes you build.

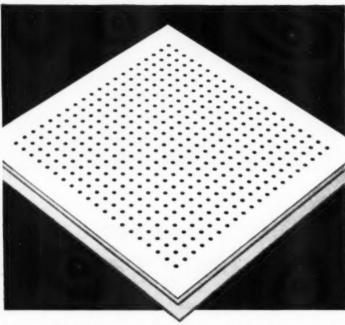


KIMBLE GLASS COMPANY

Toledo 1, Ohio-Subsidiary of Owens-Illinois Glass Company



NEW Gold Bond ACOUSTAMATIC TILE available at your dealers!



Ask your Gold Bond Lumber and Building Material Dealer to show you new Gold Bond Acoustamatic Tile. Choice of 12" x 12" size, or center-scored 12" x 24" size for two-at-a-time application. Buy—and apply on your next job!

ERE'S a brand new product in the famous Gold Bond Insulation Board line-and you can buy it directly from Gold Bond Lumber and Building Material Dealers. This strong, attractive ceiling tile, made from the fibres of "live" Southern Pine, makes rooms pleasantly restful to both eve and ear. Offers all the advantages of regular insulation tile, plus perforated surface with hundreds of little holes that really trap and smother noise; self-aligning interlocking edges that speed application, hide nails, staples; ivory finish. Needs no further decoration, but can be painted repeatedly without losing its sound-absorbing quality. Adds value to homes, buildings ... gives you extra sales points when dealing with prospects.

PTRADE MARK

NATIONAL GYPSUM COMPANY
BUFFALO 2, NEW YORK

You'll build or remodel better with Gold Bond

Fireproof Wallboards, Decorative Insulation Boards, Lath. Plaster, Lime, Roofing, Sidings, Sheathing, Wall Paint, Textures, Rock Wool Insulation, Metal Lath and Sound Control Products.



"For SALABILITY or RENTABILITY Use Westinghouse Appliances"

—Recommends Dealer-Builder Abram Post, Vice Pres., Cosmopolitan Housing Corporation

"We have eliminated sales resistance to basementless homes by including Westinghouse Appliances," says Mr. Post.

"During 1952 we constructed 100 homes for sale. They were equipped with a Westinghouse Laundromat* and Clothes Dryer. We are the only builder in this locality that has no homes unsold.

"The dream of every housewife is to start out with every modern convenience and still have the cost meet her pocketbook. This was accomplished by spreading the payments over a twenty year span on the best F.H.A. financing.

"We also rented 136 units. These were also equipped with Laundromat and Clothes Dryer, and a Waste-Away, food waste disposer. They rented within a 45-day period.

"We can heartily recommend the use of Westinghouse Laundromats, Clothes Dryers and Waste-Aways for easy salability and rentability of homes."

For information on these and other new 1953 Westinghouse Appliances, call our distributor or write direct.

WESTINGHOUSE ELECTRIC CORPORATION

Electric Appliance Division • Mansfield, Ohio
Makers of Refrigerators, Ranges, Laundromats, Dryers, Dishwashers,
Water Heaters, Vent Fans and Food Waste Disposers

YOU CAN BE SURE ... IF IT'S Westinghouse



TYPICAL INSTALLATION of a Laundromat and Clothes Dryer in an International Home erected by Cosmopolitan Housing Corporation of Youngstown, Ohio. The "twins" require 5' 2" of wall space. Both can be operated on 115 volts, a-c or Dryer can operate on 220 volts, if desired. The Dryer is easily vented outdoors.

... of course, it's electric!



"Insulite added to my new home



quality yet saved me 112!"



Build and insulate with double-duty

INSULITE

Made of hardy Northern wood



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



One carpenter can sheath 1,000 sq. ft. in 8 hours or less with Bildrite . . . cuts your sheathing costs as much as 43%. Gives you twice the insulation value of wood. Tremendous bracing strength eliminates need for corner-bracing (F.H.A. accepted). Reduces matching loss and waste. Carpenters like to work with Bildrite—it's easy to handle, cut and apply.



No building paper needed—Bildrite is waterproofed throughout with asphalt, yet is highly permeable to allow vapor to escape from inner wall areas. Saves the cost of felt and application time. Bildrite is the ideal wetweather sheathing . . . you can leave it exposed to rain and snow . . . use it or store it anywhere in any weather.



Shingle-Backer cuts under-coursing time in half! Speeds application of outer-course shingles, too. New, approved Shingle-Backer System allows you to apply Shingle-Backer directly over Bildrite—thus reducing application costs. Gives you twice the insulation value of double-course wood shingles over wood sheathing. Has tremendous holding power.

See How You Can Build Better and Save on Your Next Job . . . Mail This Coupon Today!

Address

INSULITE, Minneapolis 2, Minnesota

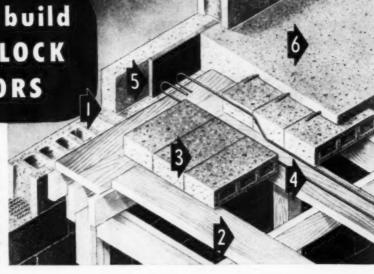
Please send FREE Kit for Builders plus Cost-Comparison Forms with which I can figure my own Insulite savings.

Name

City_____State_

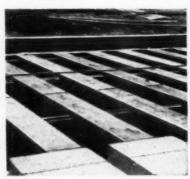


Concrete block joist floors are becoming increasingly popular for buildings with light floor loads. That's because they are firesafe, require minimum form lumber, improve the sound absorption and reduce the sound transmission of the slab and provide a flat ceiling for either plaster or paint. Here are the six simple construction steps:





Build the exterior wall to the height of a floor. Then add one course of 4-in. solid concrete block as shown in diagram.



2 Erect formwork of parallel planks (well supported by posts and ledgers) for supporting filler units and concrete slab.



3 Lay rows of block on planks with cores running horizontally. Joints in adjacent rows may be staggered or continuous.*



A Install reinforcing bars for cast-inplace joists as per design table.* Place conduits for wiring, plumbing, heating.



5 Set a continuous strip of 1-in, waterproof insulation board—as deep as floor is to be—around outside edge of floor.



Place concrete for joists and slab. Finish to texture desired and moist cure the required period before removing formwork.

Design tables, as well as suggested specifications, detail drawings, descriptive and illustrative material are included in a 16-page booklet, "How to Design and Build Concrete Block Joist Floors." Send a postcard for your free copy today. It is distributed only in the United States and Canada.

PORTLAND CEMENT ASSOCIATION
DEPT. A5-3, 33 WEST GRAND AVENUE, CHICAGO 10, ILLINOIS

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



When open plans open up new sales problems.



there's one way to close the sale . . .

.:. that's the beauty of Higgins Block*



Open plans shift customers' attention from walls and windows to large floor areas. Turn this into a competitive advantage for your houses: Sell the rich, quality look of Higgins Block! And just look at these practical advantages:

* SPECIFICATIONS:

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 - ready finished

Pressure bonded with marine-type glue - water-proof, climate-proof

Toxic impregnated — rot-proof and termite-proof

Grooved back anchors into adhesive - quiet and comfortable

Can be laid without special preparation on concrete slab - ideal for radiant heat

Blocks fit flush-without large, visible V-grooves

BONDED HARDWOOD BLOCK FLOORING THE WORLD-FAMOUS BOAT BUILDERS



Use this coupon for free sample block and literature Higgins, Inc., Dept. A-5, New Orleans, La. Gentlemen: Please send sample block and literature to: Firm Name

Address

City...... State Zone

No. D-101 WINDOWS designed for an east wall

THE saw-tooth arrangement of this battery of windows in the east wall of the living room of the Robert Simon home. Champaign. Illinois, reduces the amount of day. light which would normally flood the room in the early morning. The windows, which extend the entire width of the wall from floor line to the low point of the sloping ceiling. are a series of built-up diagonal wood mullions with amber colored cathedral glass placed at right angles to the mullions. Each is a fixed unit approximately eight inches wide. set in redwood stops.

Viewed from the exterior (photo top left) the windows look like one continuous glass surface separated by narrow wood mullions: from the interior (photo lower right) they appear to be a wood paneled wall.

The area from the low point of the ceiling line to the high point is filled in with clear glass cut to conform to the angle of the roof. This glass is set in wood stops which are part of the wood frame.

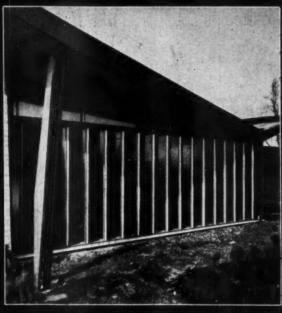


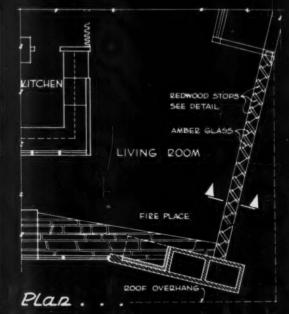
'OH, GRANDPA! I KNEW I SHOULD HAVE HAD A CONTRACTOR LAY THAT FLAGSTONE WALK!"

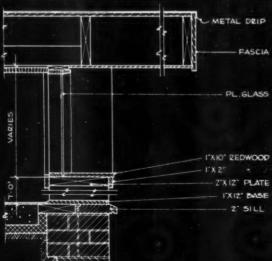
AMERICAN BUILDER'S BETTER DETAIL PLATE

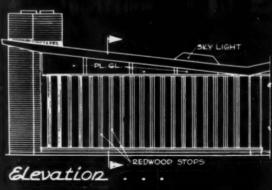
Detailed by K. Roderick O'Neal, A.I.A. for American Builder

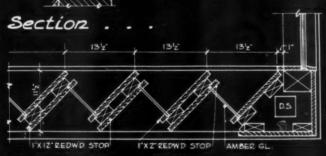
NO. D-IOI WINDOW DETAILS .













Plan of window.

Before

3

YOUR NEXT FRAMING JOB...
MEASURE THE SAVINGS POSSIBLE WITH

Tenmetal Lightsteel

STRUCTURAL SECTIONS

LOWER INITIAL COSTS

Penmetal Lightsteel is strip steel, formed into strong structural sections on high speed cold-rolling and punching machines. The cold-rolling process keeps production costs down.

LOWER MAINTENANCE COSTS Penmetal Lightsteel framing is permanent—provides structural stability, complete protection against warping, split, shrinkage, rot and termites.

LOWER INSURANCE COSTS Penmetal Lightsteel is ideal for fireproof construction. Depending upon collateral material, fire resistance ratings range up to a full 4-hours

LOWER CONSTRUCTION COSTS

Penmetal Lightsteel sections are light in weight, easy to erect. They require no cranes, no special skills. Open webbing speeds through-frame installation of wiring and plumbing; metal lath or wall board is quickly clipped or wired into place.





Lightsteel STRUCTURAL

t

Studs and joists are pre-cut to any length up to 28 feet; track and bridging comes in standard 20 foot lengths. Newly published, fact-filled booklet gives complete specifications; write for your free copy of Catalog SS-30.







PENN METAL COMPANY, INC. 205 EAST 42nd STREET • NEW YORK 17, NEW YORK

No. G-44 an attractive SUPERMART ENTRANCE

This detail shows the construction of the entrance of a new building occupied by a chain grocer.

The design of a building for this type of occupant is more or less controlled by the company, who find it expedient in the light of past experience to follow a standard procedure in layout, traffic flow, etc.

The design emphasis is placed upon the area under the canopy, which extends the entire width of the building. This is the space that is best used for display purposes. The area above the canopy provides an excellent place for a large borizontal display sign visible from across the street or at a distance.

The sheltered entrances at both ends of the building are achieved by increasing the depth of the canopy toward the entrances by the use of angular walls, and extending the canopy to the normal end wall. The brick and stone bases that surround the canopy columns are decorative as well as useful, serving as resting places for busy shoppers.

The canopy is framed in wood and bolted to an angle lintel. The surface of the canopy is covered with porcelain enamel and a wood soffit. The soffit is pierced at regular intervals with recessed lights.

AMERICAN BUILDER'S STORE FRONT DETAILS

Detailed by K. Roderick O'Neal A.I.A. for American Builder

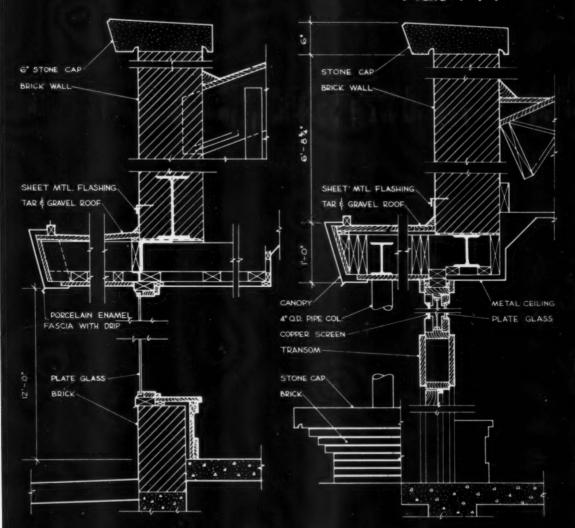
Designed by Sidney C. Finck, A.I.A., Chicago, Ill.

NO. G-44 SUPERMART ENTRANCE . . .





Plan . .



Section a-a ...

Section B-B ...



BUILDER-ERECTORS OF



SAY:

"More houses per year... faster turnover!"

INTERNATIONAL HOMES COMPLETE WITH YOUNGSTOWN KITCHENS ARE MAKING PROFIT RECORDS!

Builder - erectors report that International Homes are making new profit records! The reasons indicated are that these top quality, precision-built homes are easier to build, sell faster. That means more homes built . . . faster capital turnover . . . greater profits!

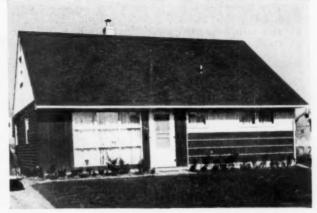
It makes good sense that every International Home includes a complete, all-steel Youngstown Kitchen . . . to take advantage of the national acceptance, sales appeal of the best-known name in steel kitchens!

What's more . . . the added appeal of Controlled Color Kitchen Decorating helps turn prospects into buyers.

And both prospects and builders know a Youngstown Kitchen is modern today, modern to stay!

Here's why International Homes feature Youngstown Kitchens:

- * Highest-quality, precision-built units.
- * Every unit complete, easy to install.
- **★** Arrangements to fit any space and cost requirement.
- * Long-lasting; low maintenance.
- * Styled for tomorrow in today's newest homes.



International Homes, like this model, go up faster, sell faster . . . help builders profit!



The modern Youngstown Kitchen includes Rotary Corner Base Cabinet. Food Waste Disposer easily installed.

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BUILDER SALES DIVISION
MULLINS MANUFACTURING CORPORATION
WARREN, OHIO



Youngstown Kitchens are sold throughout the World

BETTER BUILDING CUSTOMERS

Come from Better Homes...where families have BUY on their minds!

It's the people who live in the better homes who are constantly bettering the homes in which they live! These are the families who are always interested in building-and for whom Better Homes & Gardens is a made-to-order magazine!

For example: These families have spent over \$93,000,000 in construction costs alone on one set of BH&G house plans!

It is no accident that such doers are found concentrated in BH&C. For BH&C screens the nation to attract only such people. It does this by filling every issue with practical ideas on how to make daily living richer, more enjoyable.

Knowing this, BH&G families open their magazine with a special mental attitude—with BUY on their minds!

BH&G BUYOLOGICAL BRIEFS

- . RESPONSE. Proof that BH&G is the hardest-worked and hardest-working magazine stems from the fact that more advertisers seek inquiries from BH&G readers than any other major magazine.
- BUILDING PRODUCTS manufacturer got 15,000 inquiries from BH&G in a six months period with 46% resulting in sales, an average sale of \$400.
- HEATING MANUFACTURER used only two books in 1952-BH&G and a mass-circulation weekly. An inquiry report on two ads in each gave BH&G a 4 to 1 lead.

MEREDITH PUBLISHING COMPANY

Des Moines, lowg

Serving 33/million families-screened for the BUY ON THEIR MINDS!

Builders! <u>Cut costs</u>, save time with this power-packed special!



Blankets the 8-in. Saw Field

When you see the magic pivot cutting performance of the MAXAW 800...how it bears down with that extra cushion of power on tough cuts...how it speeds work and saves you time and money on every job ... you will instantly agree that it is the greatest power saw value in America.

Here is the saw that makes all cuts in 2-in. dimension rough and oversize lumber with blade to spare. It zips through transite, concrete, asbestos pipes, flues and liners with power to spare.

Only in the MAXAW 800 with magic ploof do you get this jumbosize performance in the compact, muscle-saving weight of only 14 lbs.! All this plus heavy duty, all ball and roller bearing, industrial quality construction...hair-fine depth adjustment... graduated bevel adjustment...and quick snap-back telescoping guard that swings on ball bearings.

Cut costs, save time with this power-packed special! See... try the MAXAW 800—greatest power saw value in America—at your hardware or building supply dealer now. (Prices slightly higher in Canada.)

Cummins-Chicago Corp., Chicago 40, Illinois 334 Lauder, Toronto 10, Canada

HERE'S PROOF!-magic ● pivot does it!

MAKE	BLADE DIA.	WEIGHT	CUTAT 45°	PRICÉ
MAXAW 800	8-1/4"	14 lbs.	2-9/32"	\$89.50
Saw A	8-1/4"	17-1/4 lbs.	2-4/32"	\$ 144.50
Saw B	8"	17 lbs.	2"	\$ 140.00
Saw C	8-1/4"	18 lbs.	2-5/32"	\$ 145.00
Saw D	8-1/2"	18 lbs.	2-10/32"	\$ 135.00
Saw E	8-1/4"	15-1/4 lbs.	2"	\$ 92.50

*Competitive prices quoted as of January 1, 1953. Saws listed as A, B, C, D and E are those made by leading manufacturers of industrial saws. MAXAW 800 and Saw E are priced without case. Make your own comparison. See how the MAXAW 800, with an 8% in. blade, gives you plenty of "blade to spare" on any cut—weights up to 4 lbs. less—outperforms saws selling up to \$144. Cummins exclusive megice pived does it! You get MAX-imum value, MAX-imum performance, with the MAXAW 800.



FREE SEND FOR THIS PLYWOOD AND LUMBER FOOTAGE CALCULATOR

Here is something every man who cuts lumber needs to help him do faster, more accurate work. It is yours free! Just write Dept. AB53 on your company letterhead.

the Preference is for OAK FLOORING ...say contractors

M

880

of all contractors and homebuilders prefer Oak over any other flooring. And that means for homes in all price levels, too. One reason for this preference is the trend to laying Oak over screeds set in mastic in construction of low-cost (concrete slab) housing.

The reason for Oak's popularity is simple. Today's young men and women are qualitywise. Beside being educated by national advertising, these future home buyers are

being told by friends and parents how truly wonderful Oak Flooring is. That's why they demand Oak floors in homes they buy. And that's why more and more contractors are using Oak floors in homes they build.

Oak's growing popularity should make you happy. Because with durable Oak in homes you build, you're sure the floors will last a lifetime.

See the NOFMA insert in Sweet's and send for free, FHA approved instructions for laying Oak over concrete. Write to National Oak Flooring Manufacturers' Association, Sterick Bldg., Memphis 3, Tennessee.





Nova Precision-Built Wall and Furniture Units. Space savers! Money severs! Assembled in 30 minutes. From single units to a complete storage wall.



Homasote Big Sheets. Save time and labor because of easy handling and unusual size-up to 8 x 14 feet.



3 Nova-Vita Horizontal-Sliding Windows. design. Panes instantly removable. With screens.



Nova Roller Doors. Installed in only 30 minutes. For closets, passageways.



5 Homasote Underlayment. Eliminates need for felt or pad. Nailed directly to rough flooring. Adds quality at low cost.



Novaproofing. Makes basements beautiful, livable. Above grade; helps keep weather and water out of the building.



7 Nove Insulated Roofs and Walls. Sheathe, shingle and insulate in one operation. Give double-coursed effect.



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• Nova Wall and Furniture Units ● Homasote 8' x 14' Insulating-Building Boards . Nova-Vita Horizontal-Sliding Windows • Nova Roller Doors and Closet Fronts • Homasote Underlayment for Linoleum and Carpeting • Novaproofing for Every Masonry Surface • Nova Insulated Sidewalls and Roofs

With 43 years of experience in serving architects, designers and builders all over the country, Homasote has now developed a line of building products that successfully meet today's competitive conditions-without sacrifice of quality. Many of their fea-tures are the result of our own personal experience in erecting thousands of honestly constructed houses, in record time, and at the most economical cost.

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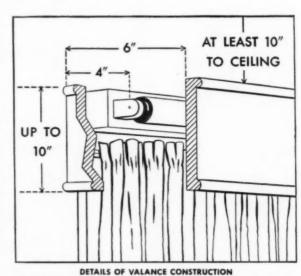
SEE the difference General Electric light conditioning with a lighted wall-to-wall valance makes in the room above. It looks bigger, brighter, more modern. Dark corners are gone. There's more and better diffused light to see by.

Simple, inexpensive to build

It takes just a few dollars and minutes to install, yet a lighted valance adds a practical design-touch that makes any room a very special attraction to home buyers. All you need are a few pieces of lumber cut to simple specifications, an inexpensive strip fixture to hold the fluorescent tubes, and the tubes themselves (General Electric De Luxe Warm White lamps are recommended). It's an easy way to add extra value to your rooms at low cost, extra value that prospects can see and admire.

For more information about lighted valances and the rest of General Electric's light conditioning recommendations, contact your electric service company.

FREE BOOKLET: For your free copy of "See Your Houses in a New Light", the new Light Conditioning booklet for builders, write General Electric, Dept. 166-AB-5, Nela Park, Cleveland 12, Ohio.



Place valance across windows, wall-to-wall (for best results, at least 16 feet of valance is required). Distance from top of valance to ceiling should not be materially less than 10 inches. Behind the valance, which may be as deep as 10 inches, use 20, 25 or 40-watt G-E De Luxe Warm White Fluorescent tubes, end-to-end to fit length.

GENERAL 👺 ELECTRIC

ask the Oppor

on-the-job finishes for hardwood floors

I would like to know the latest and best way to finish hardwood floors. I would appreciate product information especially regarding finishes that do not mar, crack, or scratch.

F. F. C., Jr., Newark, N. J.

In general, there are two ways to finish hardwood floors: (1) the conventional on-the-surface finish; (2) the penetrating finish. Honestly formulated finishes of either type possess amazing resistance to scratching or marring. They give excellent service in such places as gymnasiums and bowling alleys. It is still best practice to use paste wood filler on floors of oak in order to fill the pores. Some people believe that the penetrating type of finish excels. There is no appreciable surface film to be scratched. Conditions severe enough to dig into the wood do not produce a change of color, as might happen when on-thesurface film is broken, and the wood exposed. On the other hand, dirt ground into a penetrating finish may be more difficult to remove. Dirt ground into an on-the-surface film can be removed with the film when refinishing becomes desirable.

influence of climate on design

We are planning to move to Florida. and we hope to build a house in the \$25,000 to \$50,000 class. Can you give us information about the difference in construction in Florida as compared to Illinois, in such matters as climate, weather and living habits? We favor the one story, single unit building. Also can you give us information as to where we may best obtain plans for houses suited to Florida, which have a blend of indoor and outdoor living? C. R. S., Decatur, Illinois

Basically there is not too much difference between construction in Florida as compared to Illinois. The mild temperature eliminates heating considerations other than a simple floor furnace to care for an emergency. Plans for Florida type homes would best be obtained from architects, builders or plan sources located in any one of the larger cities.

- Planning
- Concrete Work
- Framina
- Roofing
- Heating and Plumbing
- Air Conditioning
- Wiring
- Insulation
- Interior Finish
- Power Equipment

should paint be thinned

Should both turpentine and oil be mixed in with an undercoat to thin down paint?

C. I. N., East Hartford, Conn.

You don't say what kind of paint. but we assume it is house paint. If there are no directions on the container, do not thin or add any oil. A small amount of turpentine may be added if thinner has been lost by evaporation, or if the cold weather has thickened the paint. Good quality paints are balanced as to percentages of the ingredients. If oil is added the purpose of the paint is defeated.

use of paper with floors

Is it necessary to place building paper between floors? I have noticed that builders in the east use some type of paper whereas those on the west coast do not. Which is right?

M. A. H., Los Angeles, Calif.

It is the practice of most builders to place one thickness of red rosin paper between sub and finish floor. It serves as partial soundproofing. eliminates passage of air and dirt through floor to the ceiling below.

window information

In connection with the management of a large housing project in our area, we have heard rumors to the effect that aluminum sash deteriorates approximately 2 per cent annually, especially where certain atmospheric conditions exist with such chemical residues as sulphuric acid fumes in the air. Inasmuch as this development contains several thousand aluminum windows. it could present a major maintenance problem over a period of 25 or 30 years.

R. L. H., Jr., Wilmington, Del.

Contrary to what you have heard. aluminum windows possess a high resistance to corrosion and thus exhibit

(Continued on page 158)

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?

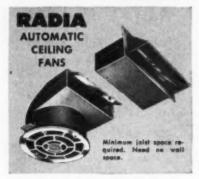
> Then "ASK THE EXPERTS"-a group of industry authoritiesexperts in their fields. They'll give you the answer.

> Address your questions to: "Ask The Experts," American Builder, 79 West Monroe St., Chicago 3, Ill.

> As many questions and answers as space permits will be published monthly in American Builder, under the head-"Ask The Experts.



For Kitchens and other Rooms



Choice of Styles Easy to Install



"Tailored" Fit for Better Looks



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Manufacturing Company 1229 GOEBEL STREET PITTSBURGH 33, PA.

QUALITY FANS AND HEATERS SINCE 1921

ask the Opports

(Continued from page 157)

a long service life. In use, the aluminum surfaces will exhibit some weathering but generally speaking this weathering is merely superficial and does not affect the structural integrity of the underlying metal. This fact is one of the main reasons why aluminum windows have been received with so much favor in recent years.

It is conceivable that there are cases where aluminum windows might exhibit a less amount of corrosion resistance. Extremely severe chemical environments are one possibility. Aluminum is noted for its resistance to sulfur and many of its compounds, and thus where there are sulfuric acid fumes in the atmosphere, aluminum windows can be expected to be serviceable.

To retain a bright and new look to the windows we suggest that the aluminum surfaces be washed and dried each time the window glass is washed and dried. A coat of wax (renewed as required), over the clean aluminum surfaces will make this regular cleaning even easier.

> L. M. Dunn, Chairman Technical Committee Aluminum Window Mfrs, Assn.

structural problems on a one-story house

I am planning a one story house and need help on the following questions:

1. Should a 16-inch concrete foundation wall supporting an 18-inch wall consisting of 13 inches of stone, 2x4 studs, lath and plaster, be reinforced with tie rods? If so, what size and centers should they be? Is horizontal and vertical reinforcing necessary?

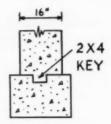
2. What size steel beam should be used for a center bearing supporting floor joists for a 27x35 foot wide house?

3. What size steel beam should be used over a 19-foot wide picture window with 2x8 inch rafters, 1x6 roof boards, 15# felt and slate shingles above, and how can wood blocking be made on each side for 18-inch wall thickness?

4. Are 2x10 ceiling joists 16 inches o.c. safe for a 20 foot span living room with no center support and an unused attic?

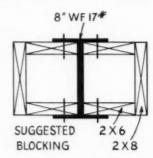
R. W. A., Philadelphia, Pa.

 With a 16-inch wall no reinforcing rods are necessary; however, it would be best to provide a key in the footing as shown in drawing.



2. Assuming the center beam carries the first floor load bearing partition, and ceiling with columns in the basement at 11 feet on centers, then if the beam occurs in the center of the 27-foot width the size should be a 7-inch 15.3# 1-beam. If beam occurs in the center of 35 foot span the size should be 7-inch, 20#.

 Assuming the lintel over window to be carrying ceiling and roof loads, the size of the steel lintel would have to be 8-inch WF 17#. See drawing.



4. 2x10 joists are satisfactory for a ceiling load on a 20-foot span with no attic storage.

wants information on joist spans and bridging

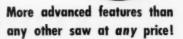
I shall appreciate any information you can give me relative to the following: (1) What is considered the minimum size for ceiling joists used in a 22-foot span? (2) Should bridging be used on all ceiling joists over a 2x6 regardless of whether they will be used to support loads, storage, etc.? (3) Should a vapor barrier be used

(Continued on page 161)



Built for All-Day Sawing Deepest Cut of All Safer 4 Ways Specially Priced ...





- 1. MORE POWER-Larger motor with higher amperage provides 10% more
- 2. LIGHTER-New style casting shaves weight to 131/2 lbs.-means less muscle
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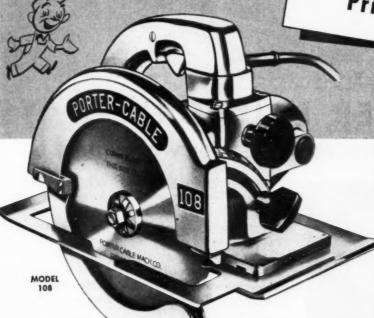
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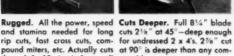
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rip cuts, fast cross cuts, comfor undressed 2 x 4's. 2%" cut pound miters, etc. Actually cuts at 90° is deeper than any comthrough 1 x 10 pine in 1 second! parable saw.



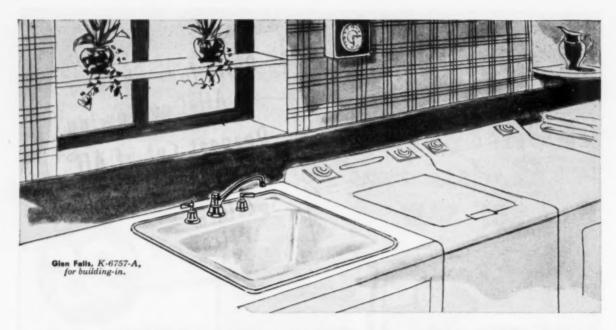
Rugged. All the power, speed Cuts Deeper. Full 81/4" blade Safer. (1) Exclusive kickproof clutch, (2) exclusive cam-action guard, (3) exclusive auxiliary front guard, (4) and extended base make sawing safer than ever.

Porter-Cable Quality Electric Tools

These are only the highlights of what's new in the Porter-Cable CONTRACTOR'S SPECIAL. Get the complete story-today -see your dealer or mail coupon for full information.

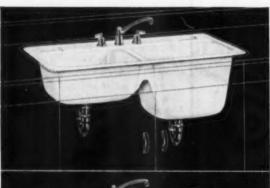
Manufacturers of GUILD and SPEEDMATIC Electric Tools

Zone....



KOHLER LAUNDRY TRAYS

for modern, first-floor workrooms





Kohler laundry trays, built into counters or on metal supports, afford convenience, good looks and step-saving efficiency. They are widely chosen for first-floor utility areas, in ranch-style and other homes without basements.

Practical features include easy-to-clean surfaces with rounded corners that eliminate snagging, useful shelf at back, and chromium-plated mixer-faucet with spout that swings aside when not in use. Acid-resisting enamel is fused to a base of non-flexing iron, cast for strength and rigidity.

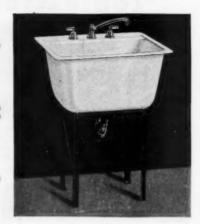
Kohler Co., Kohler, Wisconsin. Established 1873

Left Above
Westover, K-6629-A, sink
and laundry tray for
building-in.

Left
Seneca, K-6748-A, with
double compartments on
tubular steel support.
Enameled front.

Right

Glen Falls, K-6756-A, on angle iron support.



KOHLER OF KOHLER

PLUMBING FIXTURES . HEATING EQUIPMENT . ELECTRIC PLANTS . AIR-COOLED ENGINES . PRECISION CONTROLS

AMERICAN BUILDER

and that includes a Scott Lawn



This builder knows a Scott lawn adds value . . . helps clinch sales. He knows too, that folks realize a Scotts Lawn is the best . . . more beautiful, healthier, more enduring. Scotts Lawns are economical . . . Scotts seed goes farther . . . use less. Get all the facts on Scotts Lawns—you'll be pleased and so will your clients. Just drop us a card and say "Lawns." We'll also send you a binder of Lawn Care bulletins. Free!

O M Scott & SONS CO Marysville, Ohio, also Palo Alto, Calif.

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LAWN CARE PRODUCTS

Save DRY WALL CONSTRUCTION



Faster Work With

- * Eliminates backbreaking labor.
- Insures truer alignment and neater finished job.
- Gives workmen complete control during installation.

GYP "C" JACKS ARE SAVING BACKS

Builders have found that worknen can install celling panels all day long and not become exhausted . . . and worknen do a faster, neater, nore satisfactory job with the new GYP "C" JACK.

The new GYP "C" JACK consists of three parts . . . a 21 by 21 inch base . . with creeper casters . . a top spring-steel spider arm for hold-

ing gypsum boards . . . a Jack assembly capable of elevating a ½" by 4' by 12' gypsum board. The GYP "C" JACK contracts to a beight of 6'0" and can be extended to a height of 9'0". GYP "C" JACK extensions are available for higher ceiling installations.

Write for folder describing complete line.

GYPSUM CEILING JACK COMPANY

ask the experts

(Continued from page 158) under gypsum board that will have blown-in insulation?

P. W. P., Minneapolis, Minn.

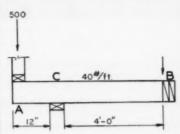
On ceiling joist carrying plaster ceiling only with no storage above, 2x8 inch at 12 inch centers would be the minimum for a 22-foot span. With a limited amount of attic storage 2x10 inches at 12-inch centers would be required. Bridging is required 8 feet on centers regardless of loads on ceiling joist above 2x6 inches. A vapor barrier should be installed on the room side of the wall in all cases.

cantilever the overhang

I have three lady clients, whose home is being razed for a new superhighway. They have instructed me to design a new home in early New England style, with what they call a "hang-over" in the front.

I have made a design which suits them and now I am troubled by the "hang-over." That is I am not certain as to the best way to frame the ceiling joists above the living room. My clients insist that the ceiling of that room be unobstructed and flat. This worries me because I fear it is too weak to carry the load on the outer ends and also because I fear that the spiked ends may split, break and raise the flooring in the bedroom. Can you suggest some better and safer way, one which will carry the bedroom partition and leave the ceiling flat?

J. G. E., Lee, Mass.



Since there is approximately 500 pounds of load from wall, ceiling and roof applied at point A, it would mean that about 125 pounds less floor load would be required at point B. Using 40 pounds per foot for floor load for four feet is a load at B of 80 pounds, one-half the load going over to point C. The difference between 125 and 80 is only 45 pounds which can easily be carried by the double headers at B with no danger of splitting out at nails.

a Moneythat closes sales



BIANCO



PACEMAKER

Your choice: 60" x 42" x 32" high or 48" x 48" x 32" high. SELLS FOR ONLY \$65.00 plus table. Less Degler Discount

The Kitchen Hostess Pacemaker Nook actually lowers construction costs because of floor and wall savings. It completes the modern kitchen and eliminates guesswork in kitchen planning. Yet the Kitchen Hostess makes homes more attractive . . . provides the plus that closes the sale!

Advertised in leading Shelter Magazines, Bianco Kitchen Hostess Nooks have strong consumer acceptance. It's good business to feature them by name.

The Pacemaker, like all Bianco Kitchen Hostess Breakfast Nooks has a sturdy hardwood and plywood precision built frame. Resilient rubberized hair and cotton linters padding. Upholstered in heavy, stain proof vinyl plastic in broad selection of decorators' colors.

Scuff-proof, rugged, one-piece molded base.

Plastic top table (pearl gray) chrome pedestal.

PACEMAKER SERIES

48" x 48" x 32"....\$65.00
Table — 30" x 30"... 33.10
60" x 42" x 32"....\$65.00
Table — 24" x 42"... 34.95
60" x 48" x 32"....\$72.70
Table — 30" x 42"... 43.54

(all prices less dealer discount)

Write for illustrated catalog in color on Bianco Kitchen Hostess line ready built for easy installation.

CANCO—

2734 Victor Street • St. Louis 4, Mo. factories in St. Louis and Fort Worth



As fundamental as hidden pipes...





A well-built house is always better when it includes raceways for telephone wires. In the home-buyer's scheme of things, the place for pipes is in the walls where they're out of sight.

That's the accepted place for telephone wires, too.

You can make concealed telephone wiring and preplanned telephone outlets standard features in the homes you build.

A simple conduit system, built into walls during their construction, is all that is required.

Your Bell Telephone Company will be glad to help you lay out economical raceway installations. Just call your nearest Business Office.

BELL TELEPHONE SYSTEM



BRIKSET Best!

ON THE JOB ... IN THE LABORATORY



• We're mighty proud of the fact that Brikset was better than 51 other masonry mortar cements in a thorough laboratory test made recently on mortar cements as to color, plasticity, strength, sand-carrying capacity, bondability and

But more important, we're doubly enthusiastic about the reception Brikset receives on jobs like the above... for being best on the job is the real test of any good mortar cement.

Rely on the mortar cement that has been satisfying architects, builders and masonry contractors for 22 years. Medusa Brikset's record is proved in thousands of buildings and homes all over America . . . homes whose masonry walls are strong, whose mortar joints are uniform in color. Masons like Brikset's exceptional plasticity . . . and the fact that it's easy and economical to use.

Use Brikset on your next job. You can bet on the brand proved best in the laboratory . . . best on the job!



You can build BETTER with MEDUSA PRODUCTS

MEDUSA PORTLAND CEMENT COMPANY

Sales Offices

Cleveland 15, Ohio Baltimore 2, Md. New York 17, N. Y.

other properties.

York, Pa. Chicago 1, III. Pittsburgh 22, Pa.

Washington 5, D. C. Milwaukee, Wis. Toledo, Ohio

New low-cost ways to speed



Home buyers are shopping around. Builders turn to low-cost Weldwood plywoods to add quality and customer interest to homes in all price classes.

Frankly speaking, the gravy train has left. As one builder recently put it, home buyers "no longer come in with a desperate look on their faces because they have to find some place to live."

This means, simply, your customers are going to shop around. They'll compare your offerings with other homes on the market. The difference between handing over the deed or holding onto a dud will be the extras that add distinction to the homes you build.

Weldwood plywood products are investments that more than pay for themselves in quick turn-over and satisfied buyers. A living room paneled in beautiful, low-cost Weldwood oak can make a sale before a single other room has been seen. Weldtex squares on a bedroom ceiling, Surfwood on a TV-room wall, rich-looking Novoply sliding closet doors add the extra personality that makes your homes stand out.

Real wood is the big news and long-range trend in interior home design. Cash in on this trend which is being promoted to millions in Weldwood ads and editorial features in House Beautiful, Better Homes and Gardens, American Home and others.

Give the homes you build or remodel added richness, distinction and that sought-after "custom" look with Weldwood. Complete information can be supplied at your nearest Weldwood showroom... or see your lumber dealer for Weldwood products.

Contrast the rich, custom look of this Birch pre-finished Plankweld with an ordinary wall surface. Looks far more expensive than the \$58 per package which covers 108 sq. ft. Plankweld is edge-grooved to provide neat lap joint. No visible nails because of special metal clips. Factory finished—no finishing on the job!

Amazing new wonder-wood Novoply is the flattest panel ever made. Novoply sliding doors never warp, swell, stick, jam or rattle. Once you see the mosaic beauty of this new, low-cost Weldwood product, you'll choose it for everything from wall panels to built-ins. Sizes 4' x 7' and 4' x 8' in %" and ¾" thicknesses—good both sides.



home sales with Weldwood



Material cost for a striking Weldtex 13-foot wall is only \$27. Notice how the deep grooves add depth and personality, yet have the functional purpose of hiding face nails and butt joints. Weldtex goes up fast and may be painted, stained or finished "natural."



Superb African Mahogany is an ideal backdrop for either traditional or modern furnishings. For either new construction or remodeling jobs it adds character and a quiet charm. Like all Weldwood plywoods, it is guaranteed for the life of the building.



Why paint the ceiling and forget it when it can be a valuable sales asset with Weldtex pre-cut squares? Available in 12", 16" and 24" sizes, they are easy to put up, and can also be used for dramatic wall treatments. Cost—about \$47 for a 12' x 15' ceiling.



New idea for kitchens makes extensive use of Weldwood plywoods. Light colored woods like birch and knotty pine are particularly popular. In this kitchen, birch has been used to good advantage. Upkeep with all Weldwood Plywoods is kept to a minimum.



Newest Weldwood paneling is Surfwood, an exciting product for use where a rustic treatment is desired. Surfwood, in 4' x 8' panels, has the authentic "sand-blasted" effect of wood found on the beach—satin smooth with grain and small knots standing out.



Paint or enamel this Weldwood Utility Gum with no grain raise. Made without plugs or patches, these low-cost hardwood panels are highly useful for interiors, yet they cost no more than softwood plywood. Sizes: ¼" thick in panels 6' x 4', 7' x 4', and 8' x 4'.

There is a Weldwood Product for every part of the home



- Concrete forms
- Wall and roof sheathing
- Cabinets and built-ins
- Interior wallsExterior siding material
- Westinghouse Micarta for counters, table tops and bars
- Doors
- · Sub-flooring
- · Bathrooms and kitchens

Cost figures above are approximate; for exact quotations consult your lumber dealer.

Weldwood®

United States Plywood Corporation 55 West 44th Street, New York 36, N. Y.

Distributing units in all principal cities . Dealers everywhere

Novoply, Weldtex, Plankweld and Surfwood are registered trade marks



new products offered by manufacturers

ROOF DECK, INSULATION, CEILING INTERIOR FINISH AB55301

A job-tested insulating roof slab in increasing demand serves as a durable roof deck, provides year-round insulation and makes an interior ceiling finish when applied over exposed beams. It is composed of multiple layers of half-inch insulating building board, laminated to form a waterresistant, lightweight material.

The slab is manufactured in standard thicknesses of 1½, 2 and 3 inches. Standard panel size is two feet wide by eight feet long. The long edges have a tongue-and-groove joint and short edges are square. The exposed under side is finished in tapestry white. Panels are treated with Biotex as protection against decay, termites and mildex.

The manufacturer has made the product available with the exposed surface perforated to provide efficient sound absorption, a useful feature to builders of schools and commercial buildings. The slab can be used on flat, pitched or monoslope roofs. It is covered with conventional types of roofing, such as mineral surfaced built-up roofing mopped in hot asphalt. In its present development, it is recommended for use only in areas with moderate winter temperatures, i.e., average above 45 degrees F.

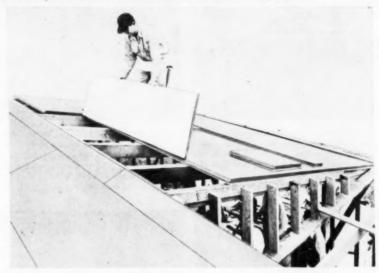


Modified t&g joint is used on long edge: perforations act as sound absorbers

The material is said to reduce heat transfer effectively in either direction. It does not store up heat in the summer, which permits a cooler interior during the day and a quicker cooling of the home at night. During the winter it is claimed to conserve heat and reduce fuel costs, Simpson Logging Co., Dept. AB, 1065 Stuart Bldg., Seattle 1, Wash.

FOLDING RULE AB55317

A new folding rule can be opened to an even one foot, one foot six inches, two feet, two feet six inches, and on. Each leg opened from the short end adds even six inches. Opened from the long leg, the rule can be hooked over the end of work, gauging even measurements in six inch units. The square green ends of the rule butt square with the work, permitting accurate line scribing at two, four, six, eight, 10 and 12 inches, and on. The rule is finished in vinyl plastic; grease and dirt wipe clean from the plastic coated



Insulating roof slabs are easily handled by one man. Panels bear weight of workers and equipment without damage, while increasing the strength of the roof structure

sticks. Large, legible figures do not become dull, due to the plastic coating. Nickel silver ball-lock joints snap open and shut, cannot rust. Stanley Tools, Div. Stanley Works, Dept. AB, New Britain, Conn.

ADJUSTABLE WINDOW UNIT AB55303

A removable, adjustable window unit, designated as the "400" is provided with three adjustable tension units in each set of spring-metal sash guide. These units are permanently embedded in the jamb. The tension adjusting screw works in metal threads inside the equalizing spring, giving years of additional service over windows in which the adjusting screw is inserted directly into the wood jamb.



The three tension units exert an equal pressure from top to bottom of the window, which eliminates sticking or binding when windows are closed or opened. The units also assure a snug, draftproof fit all around, as well as making windows easier to remove for washing or painting. They are available in all modular sizes and designs, and can be used in all types of construction, according to the manufacturer. A. R. B. Window Sales Co., Dept. AB, 306 E. State Fair Ave., Detroit 3. Mich.



ALUMINUM LOUVER

AB55311

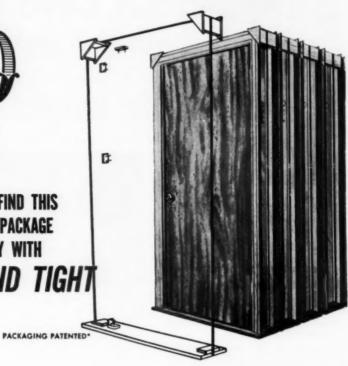
A new adjustable aluminum louver is said to provide an easily installed means of ventilating gable peaks with pitches from 4-12 through 12-12. The manufacturer states that its design permits quick recessed installation behind fascia (as illustrated), giving the appearance of traditional wooden triangular louvers.

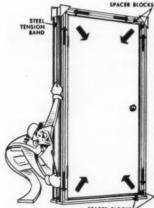
Sagging or vibration is eliminated by reinforcement of the louver vanes. Variation in vertical spacing of the vanes is minimized by center location of the operating members. Since the louver is an integral unit, individual vanes cannot fall out. Units are supplied complete with aluminum screen in seven, six or five vane sizes. Leslie Welding Co., Dept. AB. 2935 W. Carroll Ave., Chicago 12, Ill.

Door Units were Patented in



BUT IT TOOK 80 YEARS TO FIND THIS SIMPLE, PRACTICAL WAY TO PACKAGE A DOOR UNIT FOR DELIVERY WITH JOINTS SQUARE AND TIGHT





Tension in the steel band exerts equalized pressure (indicated by the arrows) at the corners to draw the frame in tight contact with the rigid door. Frame joints and mitres are therefore rigidly held square and tight by the door itself.

Spacer blocks between the door and frame serve a dual purpose: (1) They block the frame around the door during shipment, and, (2) Are used to maintain proper door clearances while the door is being installed. Faces are protected by cardboard when shipped by common carrier. In 1870—80 years ago—one Jonathan Pratt, (who probably had a handlebar mustache), patented a split jamb door unit. Jonathan, like many others who followed him, found that the door unit idea was good—that a door could be hung better in a factory and that the installed cost was less—but—he and

the others who followed, found that in spite of anything they did, the joints worked loose on the way to the job. Result, no one wanted to buy their door units. 80 years later—Jonathan's problem was solved—The Ready Hung Door Packaging or Crating Method (Patented*), was developed which will deliver a door unit 15 or 1500 miles in perfect condition.

Now, you can have all the advantages that Jonathan foresaw, a door and frame packaged unit delivered with joints square and tight.

LOOK FOR THE DOOR UNIT WITH THE TENSION BAND AROUND THE FRAME

*PATENT NO. 2489029

SOLD THROUGH LUMBER DEALERS

For further information write the mill nearest you.

BIRMINGHAM, ALA. National Woodworks, Inc. 2201 29th Ave. North

BURBANK, CALIF.
Ready Hung Door Mfg. Co.
200 South Victory Blvd.

CHARLOTTE, N. CARO.
National Door Unit Corp.
123 E. Griffith Street

PALLAS, TEXAS
Ready Hung Door Mfg. Corp.
1113 Dragon

DENVER, COLORADO Prefabricators, Incorporated P. O. Box 5222 GRAND RAPIDS, MICH.

BRAND RAPIDS, MICH. Haskelite Manufacturing Corp 701 Ann St., NW HOUSTON, TEXAS
Ready Hung Door Mfg. Co.
P. O. Box 124

MEMPHIS, TENN.
Ready Hung Door Mfg. Corp.
911 Rayner
NEW YORK, N. Y.

NEW YORK, N. Y. Bailey-Whalen Company 17 Park Ave., W. Orange, N. J.

READY HUNG DOOR CORP. Fort Worth 2, Texas

SAN ANTONIO, TEXAS Ready Hung Door Mfg. Corp. 200 Seguin Street

SIOUX FALLS, S. DAK. Jordan Millwork Co.

TORONTO, CANADA
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PAT. NO. 2489029
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FORM NO. 2523-1



at lower cost ... give a touch of tomorrow to the house you build or remodel today

It pays-off to know what RA-TOX FOLDING DOORS do for you.

First, remember, they cost less installed than the installed cost of conventional swinging doors. While RA-TOX FOLDING DOORS give you bigger profit, your customers get priceless benefits . . . between room air flow . added usable floor area . . . closet ventilation. Even small rooms appear to blossom with ample space. So you give a touch of tomorrow to the house you build or remodel today.

RA-TOX FOLDING DOORS of woven, vertical open-slat design are fully guaranteed. You have your choice of colors, or natural stain finish. All needed hardware is supplied . . . a few minutes installs the track and fastens the door edge to jamb or wall.

See your Dealer or write us for Bulletin No. 706 and all the facts



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new products

T&G FLOORING NAILER

A useful device for nailing tongue and groove hardwood flooring provides that each 134-inch cleat be driven and set at 45 degree angle with a single blow. Each cleat is driven straight and at the correct angle. Flooring boards are auto-matically drawn tight while setting the cleat. The tool's use eliminates split or cracked tongues and is said to permit 60 per cent faster laying of t&g flooring. Its continued use cuts down surface marring and erratic nailing due to operator fatigue. The nailer and mallet (included with nailer) is also claimed to eliminate cupping and warping of floor boards.



The magazine, which is instantly reloadable, holds 100 flooring cleats. The tool cannot rust, clog or jam, according to its manufacturer. Illustration shows the t&g nailer in correct position for driving cleats. Powernail Co., Dept. AB, 961 W. Montana St., Chicago 14, Ill.

GLASS JALOUSIE

The "Curv-Tite" glass jalousie is a noiseless, insulated, frictionless, finger-tip controllable linkage, equipped with balanced floating glass holders. These features are said to assure trouble-free, effortless action under severe weather conditions.



Head and sill weatherstripping give a positive seal, and built-in glass compensating springs within the glass holder assure a dead-lock seal for the jamb. The unit is adaptable to all types of installa-tion. Metal Arts Mfg. Co., Dept. AB, P.O. Box 4144, Atlanta, Ga.

. FOR MORE INFORMATION USE COUPON, PAGE 175



CAULKING COMPOUND



CALBAR is now available in 26 colors to match or harmonize with every building material on the market. It's elasticized, non-staining and complies with Federal Specifications and those of the Asbestos-Cement Products Association.

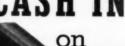
Write today for complete details

CALBAR PAINT & VARNISH CO.

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Guaranteed 90% Red Heart-100% Oil Content

Our national advertising annually produces thous a ands of customer inquiries which are turned over ands or customer inquiries which are turned over to our dealers for follow-up. Here is an active market for cedar closet lining. Brown's SUPER-CEDAR is a fast-moving, profitable item and is produced by the largest and oldest experts in the business. Sold only

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LARGEST MANUFACTURERS OF AROMATIC RED CEDAR IN THE WORLD

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Here's why Gold Bond ASBESTONE Roofing & Siding Products



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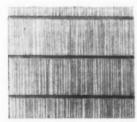
You will find Gold Bond Asbestone products adapta-

ble to many construction needs-residential, farm, commercial and industrial. They are easy to install. Your clients will like the distinctive designs and modern colors

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CHROMA-TEX SIDING SHINGLES America's most beautiful home ex-terior. Rich texture rivals costly



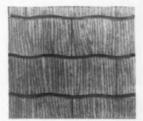
HEXAGONAL ROOFING SHINGLES A smooth-finished asbestos-cement shingle, applied in a diamond



WOOD-GRAIN SIDING SHINGLES (Straight Edge). Beauty of natural wood-grain finish, permanence of



STANDARD "400" CORRUGATED An ideal material for heavy in-dustry. Used for both roofing and



WOOD-GRAIN SIDING SHINGLES (Wavy Edge). Same as the shingle shown at the left, except that bottom edge is wavy.



ECONOMY "250" CORRUGATED For light steel or wood framed in-dustrial, commercial and farm



DUTCH-LAP ROOFING SHINGLES Square-cut, wood-grain textured shingle for traditional straight line



WALLBOARD. Flat sheets of as-bestos-cement for interior and ex-terior use in buildings of all kinds. Flexible and utility types.

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Fireproof Wallboards . Decorative Insulation Boards . Lath . Plaster . Lime . Sheathing . Roofing . Sidings Wall Paints . Masonry Paints . Textures . Rock Wool Insulation . Metal Lath . Sound Control Products You'll build or remodel better with Gold Bond



... when buyers notice they are built with MALT-A-MASTER wood window units with removable sash.

MALT-A-MASTER wood window units connote "quality." Here is a unit with removable sash, built-in weatherstrip and invisible balances. Since Malta mills them, you are sure of precision milling, quality woods and the most careful workmanship. The price is less than you would expect.

MALT-A-MASTER makes your houses stand out and keeps them moving.

Malt-a-Master

makes your houses STAND OUT



Sash can be removed in a matter of seconds for easy window washing or painting.



THE MODES

MANUFACTURING COMPANY
MALTA, OHIO

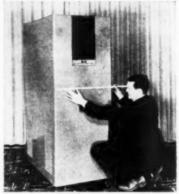
Member Pandersza Pine Woodwork Aston, and the N. H. M. A.

new products

AIR CONDITIONER

AB55315

Year 'round air conditioning for homes in the \$10,000-\$14,000 price range, containing up to 1,200 square feet of floor space, will be possible with the introduction of a new two-ton gas fired unit. It fulfills recent NAHB requirements which specify a cost of not over 10 per cent of the price of the home; the unit to occupy a maximum of 12 square feet of floor space; quiet operation, essential because of the difficulties of isolating noise in a home; delivery as a unit instead of assembly on the site; and low maintenance and extended service life.



The new air conditioner is 75 inches high and requires only eight and one-half square feet of floor space. Its gas-operated absorption unit provides the needed quiet operation, long life and low installation and maintenance costs. It is delivered complete, less its ductwork. Servel, Inc., Dept. AB, Evansville, Ind.

LOUVER TYPE WINDOW AB55306

A louvered window offers a completely new window design to architects and builders. Blending with the current trend toward functional design, the louver principle affords 100 per cent ventilation when fully opened. Even when partially opened, drafts are eliminated. The window consists of two galvanized steel uprights with rotatable pockets mounted on bronze



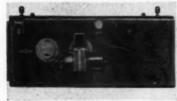
bearings. These pockets accommodate 6 inch glass louvered blades, which remain in any desired position and lock automatically in the closed position. Sun-Sash Co., Dept. AB, 38 Park Row, New York 38, N. Y.

FOR MORE INFORMATION USE COUPON, PAGE 175

HORIZONTAL FURNACE

AR5531

Two new model horizontal furnaces are fired either with a gun-type oil burner or are interchangeable for use with gas,



using an inshot type of gas burner. These furnaces are commonly used to heat commercial buildings by direct air-blast or attached to duct work. Hanger-posts are provided for suspending these units from the ceiling, or four pipe legs can be fastened to the couplings provided at the bottom to support the furnaces when used as portable units, or when set upon a base.

Built-in refractory combustion chamber, air filter and large blower fan are shipped with the factory-assembled unit. The larger model has an output of 210,000 B.T.U. per hour. The smaller size delivers 160,000 B.T.U. per hour. Casing measurements for both units: length 62 inches, height 30 inches, width 30 inches. Delta Heating Corp., Dept. AB. Trenton 8. N. J.

SHAKE SIDEWALL UNITS AB5530

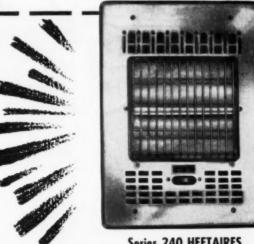
A pre-assembled sidewall unit combining cedar shingles and insulation backerboard is stated to be easy and rapid to apply. It saves 70 per cent or more in application time, according to actual builders' surveys. The sidewall, designated as the "Shakertown Glumac Unit," consists of a deep-grooved, factory-stained cedar shingle outer-course which is electrically bonded to a waterproofed impregnated insulation backerboard. Units measure 18 inches wide by 46½ inches long.



The Glumac units are stated to eliminate the necessity of sawing, cutting planing and fitting of individual shingles. They are supplied in nine factory-stained colors. The Perma Products Co., Dept. AB, 5455 Broadway, Cleveland 27, Ohio.

FOR MORE INFORMATION USE COUPON, PAGE 175

Here's TODAY'S GREATEST SELLING FEATURE IN BATHROOMS



Series 240 HEETAIRES

THE ECONOMICAL LOW COST

Wall Radiant HEETAIRE FOR AUXILIARY BATHROOM HEATING

● Builders today, from coast to coast, are installing WALL RADIANT HEETAIRES in every size and style of house. And nationally-advertised and publicized homes specify auxiliary heat in bathrooms.

Built to quality standards and styled for eye appeal, these low-cost Wall-Insert HEETAIRES become red hot immediately they're switched on! Added eye appeal . . . buy appeal!

Compact and easily installed, Series 240 have highly polished chromium-plated reflectors and are available in highly polished Nuchrome. HEETAIRES are manufactured in a complete range of types and sizes — a quality line with both MANUAL and AUTOMATIC THERMOSTATIC HEAT CONTROL.



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Coated optics give you this — not this—

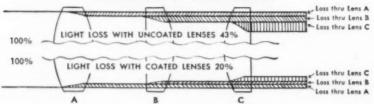


Model 3000, \$185.00, complete with tripod.

with a White Universal Level-Transit

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

COMPARISON OF LIGHT PASSAGE



And there's more!



*Prices subject to change without notice,

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

Expert REPAIR SERVICE on all makes, all types of instruments

new products

METAL DOOR CANOPY

ARS5305

All-aluminum door canopies and window awnings in a variety of types help to make homes more attractive and inviting. Made in forward-slant and side-slant models, the door canopies add charm to home entrances and provide protection for doorways.



"Weatherguard" aluminum window awnings protect windows from sun, rain and snow. Five types each of canopies and awnings are now supplied, in twotone or solid color baked-enamel finishes. The manufacturer also furnishes decorative metal shutters, flower boxes and similar house accessories. Fawsco Mfg. Div., Falls Stamping and Welding Co., Dept. AB, 1701 Front St., Cuyahoga Falls, Ohio.

PLASTER-MORTAR MIXER AB55316

With a capacity of from three to four cubic feet, this unit has a low charging height of 37 inches, end-to-end mixing action and a simple declutching system for fast engine starting. Equipped with a telescopic tow pole, the mixer is easily portable. Its 29 inch width will clear narrow doorways for moving it indoors.



The mixer is fitted with four non-clogging saw tooth blades that produce a uniform texture mix every batch. Anti-friction bearings on the countershaft and paddle shaft are lifetime lubricated. The mixing drum can be tilted in either direction for quick cleaning. Power is transmitted by multiple V-belts from a three horse-power air cooled engine. Kwik-Mix Co., Dept. AB, Port Washington, Wis.

FOR MORE INFORMATION USE COUPON, PAGE 175



MOVE RIGHT IN on ECONOMY with



Build them to last longer . . . build them for less—with CLINTON Welded Wire Fabric. Concrete floors, bases, walls, roof decks; steps, driveways or walks—all can be made stronger, and at less cost, with CLINTON Welded Wire Fabric.

Here's why:

Simple to Form and Shape. CLINTON Welded Wire Fabric has the right flexibility—it's easy to bend, form or shape on the job . . . yet once formed it is rigid, it holds its shape.

Easy to Handle and Place. CLINTON Welded Wire Fabric in either heavy or light gauges flattens quickly and easily from the roll.

Get complete information on the advantages of CLINTON Welded Wire Fabric for all concrete reinforcing jobs. Write the office nearest you.

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new products

SANDER-POLISHER

AB55319

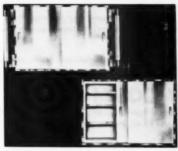
The Model 966 Sander-Polisher consists basically of a disc sander and polisher. It can also be used with such rotary accessories as drills, grinding wheels, etc. A unique feature is the tool's orbital attachment for fine finishing. It is shown equipped with this attachment.



It can be used for cleaning, finishing and polishing nearly any surface or material in wood, metal or plastic. For rotary operation it is furnished complete with a 6-inch rubber pad, a 6-inch lamb's wool bonnet and three 6-inch aluminum oxide sanding discs in assorted grits. For fine finishing, the orbital attachment is used with one-third of any standard 9 x 11-inch abrasive sheet. Combined, these two units will perform any standard job from rough sanding and removing paint to producing a mirror-smooth finish. Millers Falls Co., Dept. AB, Wells & Devon Sts., Greenfield, Mass.

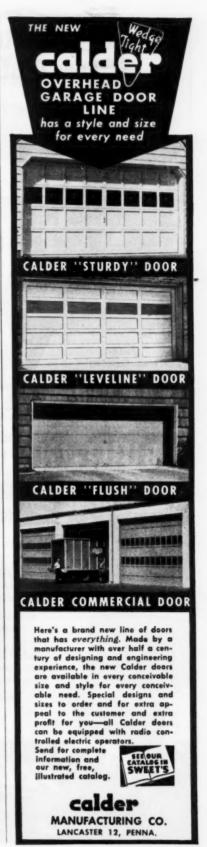
BATHROOM CABINETS AB55320

Available in both fluorescent lighted (top) and unlighted models, these new cabinets feature plate glass mirrors, either chrome plated or white enameled cabinet frames, quiet operating sliding mirror doors and chrome plated light brackets.



Cabinets require a 28x18-inch wall opening; the inside measurement is extremely spacious, with adjustable shelves to suit the owner's preference. Overall mirror size for all models is 30x20 inches. Lighted model takes two 15-watt fluorescent bulbs, operated from wall or cabinet switch. A convenience outlet and two razor blade drops are standard equipment. Standard Steel Cabinet Co., Dept. AB, 3711 Milwaukee Ave., Chicago 41, Ill.

FOR MORE INFORMATION USE COUPON, PAGE 175



How to Offer Low Cost Housing !



Build More Saleable Area into Homes with BESSLER Disappearing Stairways

- The ORIGINAL disappearing stairway— made for over 40 years.
 A real stairway—most a ladder.
 Seven well-engineered models—for every

- need.
 4. Safety-designed in every detail for your
- protection.

 5. Suitable for the finest homes—old and

- 5. Sultable for the money.

 6. Operates from above and below.

 7. Full width treads—SAFE for everyone.

 8. ALL steps are of equal height.

 9. Treads and stringers are made of Sitka
- Spruce.

 10. Full door width provides ample access
- 10. Full door wath process
 for large objects.
 11. Full length SAFE hand rail.
 12. Accurate architectural design assures
 easy and SAFE ascending and de-

- cosy and SAFE ascending and descending.

 13. All metal parts are made of strong, SAFE pressed steel.

 14. Repairs always avoilable on quick natice for all models—no "orphans."

 15. Doors made of White Pine and Fir in Iwo-panel and flush types; hardwood doors in flush type only.

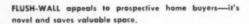
 16. Tailor-made for all heights—no short or land stees.
- long steps.

 17. Proved in performance—hundreds of thousands in constant daily use.

 18. IMMEDIATE DELIVERY!

The Bessler Disappearing Stairway Co. 1900 East Market St., Akron 5, Ohio BESSLER-best for over 40 years!

BUILT-IN RADIOS help sell your homes!



Easy for builders and electricians to install—fits in standard 4" partition. As easy to install as any electrical receptacle outlet.

Radio is 5-tube AC-DC Superhetrodyne. Panels to match color scheme of room

LOW COST! Retail price only \$34.95 plus installation. Special trade prices on request. Panels extra: Masonite \$2.45. Plastic colors \$4.45.

Write for descriptive folder and specifications.

Territory franchises available to qualified jobbers and dealers.

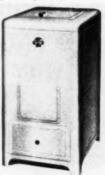


Dept. MAS, 1012 Cleveland Street, Clearwater, Florida

new products

HOME DISPOSAL UNIT

The Calcinator is an automatic home disposal unit, either gas or electric fired, which consumes all garbage and other combustible household waste. It can be located in the kitchen, basement or utility room. Refuse is first completely dehydrated, then destroyed; all household waste (excepting only metal and glass) is reduced to a powdery ash. The unit's operation is silent and odorless. The combustion process is factory-set for three one-hour periods per day.



Heat is enclosed within the unit where it is utilized in drying out refuse; 98 per cent of the heat necessary for reduction is supplied by the waste itself as it passes through its dehydration and reduction processes. The heat then passes off through a flue at the back of the unit. The Calcinator is 36 inches high, 24 inches deep and 18 inches wide, Calcinator Division, Valley Welding & Boiler Co., Dept. AB, Bay City, Mich.

PORTABLE ELECTRIC SANDER AB55310

Recommended for finishing operations on wood, metal, and plastics, this tool can be used for sanding down window sills and trim work prior to repainting, for leveling wood, wall board or plaster wall joints, for "feather-edging" painted surfaces on wood or metal, and similar operations. The bottom plate extends beyond the body of the tool, permitting sanding in such close quarters as flush to the riser on a stair tread. A paper holder eliminates the need for a screw driver or extra

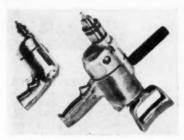


hand when changing paper. Sanding surface is 35/x9 inches; platen revolves at 4250 r.p.m., permitting the unit to be used in any direction on wood without showing swirl marks. The Black & Decker Mfg. Co., Dept. AB, 600 E. Pennsylvania Ave., Towson 4, Md.

FOR MORE INFORMATION USE COUPON, PAGE 175

PORTABLE ELECTRIC DRILLS AB55322

Two electric hand drills, one a general duty type with a ¼-inch chuck, and the other a ½-inch capacity special duty model, are stated to embody the most popular drill features selected in a survey of drill users. Both have spindle ball bearing construction to absorb radial load and end thrust, Jacobs chucks for slipproof gripping of bits and Universal motors. Die-cast aluminum housings have aircool vents located to avoid covering by hand.



The general duty model (left), designed for all-around shop or home use, has a pistol grip with a push button lock. Idle speed of 2,000 r.p.m. is useful for drilling in wood, metal and compositions. The tool can drill within \(^3\)-inch of a parallel surface.

The special duty unit with a ½-inch chuck is built for production use where sufficient power is needed to penetrate metals and other resistant materials. An auxiliary handle which can be mounted on the top or the side of the drill enables the operator to increase pressure and control torque. Porter-Cable Machine Co., Dept. AB, 1714 N. Salina St., Syracuse 8,

MAIL BOX STANDS

AB55304



Attractive patterns in mail box stands made of ornamental iron offer an unusual touch to town or suburban home decoration. The styling and workmanship in these units assure durability as well as beauty. The stands, which are available in a variety of styles, are made of cast or hand wrought ornamental iron. They are made to install at standard heights, in compliance with postal regulations. They can be used with standard or parcel post mail boxes. Tennessee Fabricating Co., Dept. AB, 1490 Grimes St., Memphis, Tenn.

WOOD AND PLASTER SEALER AB55321

Claimed to contain 25 per cent more solids than previous sealers, a new wood and plaster sealer, called Liquid Raw-Hide is guaranteed to contain 621/2 per cent solid non-volatile matter, thus greatly increasing its efficiency. The manufacturer, known for resin-free (all oil-base) finishes for all kinds of wood, pointed out that this new product is also completely resin-free. The versatility of the new wood and plaster sealer makes it adaptable for paint enamelizing and plaster sealing: it may also be used as a penetrating floor finish. Its drying time is stated to be from two to three hours for a dust-free finish, and from six to eight hours to a hard dry. Linseed Oil Products Co.: Dept. AB, 359 Del Monte St., Pasadena 3, Calif.

SLIDING DOOR WARDROBE AB55308

A new type wardrobe conforms with homeowner demands for more wall space and greater floor area. It provides extra storage space with a separate top compartment. The main compartment provides shelf space and hanging space for garments. The bypassing sliding doors may be of any type the homeowner selects.



These wardrobes are shipped to the job knocked down to reduce freight costs. They can be easily assembled and installed, according to their manufacturer. Modern Glide Sliding Door Frame Co., Dept. AB, 11690 Cloverdale Ave., Detroit 4, Mich.

BIRCH KITCHEN UNITS

AB55318

Cabinets of natural birch with Formica covered counter tops are available with clear lacquer finish which accentuates the full-color wood grain. Open-end units offer spacious, continuous shelving. The open end feature eliminates the confinement of cabinet sides which may limit storage space just short of that which is needed.

Cabinets are available either assembled or unfinished, to be completed in the particular style and color desired. They may be tinted, stained or enameled. Cabinets are also available unfinished, semi-assembled. Sub-assemblies (all vertical and horizontal frame members) and all parts



are factory pre-fit for easy assembly. Units are packed flat in individual cartons complete with hardware and instructions for assembly with hand tools. Brammer Manufacturing Co., Dept. AB, Davenport, Iowa.

AIR VENT VALVE AB55309

An automatic air vent valve for installation on all types of radiators, baseboards, convectors, unit heaters, and high points of mains for fast efficient venting, is introduced. The valve is equipped with faster acting expansion washers which result in more frequent venting cycles. A factory-fixed setting of the expansion washers assures quick repetitive venting. The manual venting screw has a large slot to accommodate a screw driver for the initial quick filling of the system. It measures only 1 inch overall length by % inch diameter. The valve has a conventional 16-inch IPS thread, and can be installed horizontally or vertically. H. A. Thrush & Co., Dept. AB, Peru, Ind.

NEW PRODUCTS AND CATALOGS IN THIS ISSUE Save Time—Just Insert Key Numbers and Mail To: American Builder, 79 W. Monroe Street, Chicago 3, Illinois Name

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TIMBER CONSTRUCTION

Gives You Safety, Flexibility, Lowest Cost



Experience has proved that engineered timber construction withstands emergency winds and seismic loads. It resists combustion, free from the hazards of load-bearing collapse under extreme heat, It possesses all the elements essential to permanent construction.

Crossett timbers meet all tests in this new demand for structural wood. Big mill production at Crossett embraces every modern technique in quality control. Crossett timbers are engineered to specified stress values. Available in untreated, wolmanized** treated and Crossoted stock, they qualify under Southern Pine Inspection Bureau standards as well as Federal Specifications MM-L-751b.

FOR FURTHER DETAILS, write Crossett to obtain specific information regarding your own designing problems. See for yourself how timber construction can answer many of your difficult design and building problems today.

*Employing Teco Connectors.

**Reg. U. S. Pat. Off.

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CROSSETT LUMBER COMPANY

Catalogs -

and Manufacturers Literature

149 — HARDWOOD FLOORING-this brochure contains useful information on continuous strip, plank and strip, pattern, and block flooring for institutions, commercial establishments and homes, Important data on Northern hard maple, red oak, white oak, birch and beech is included. One section contains natural color illustrations of various flooring panels. Yawkey-Bissell Hardwood Flooring Co., Dept. AB, White Lake, Wis.





150—ACOUSTICAL TILE—made of mineralized wood, is described in this four page folder. This product offers noise reduction, fire resistance, insulation, ruggedness and attractive appearance, while stressing ease of installation and maintenance. The tile is furnished in 12x12x1, 12x24x1 and 24x48x1 inch sizes, all with beveled edges and a prime coat of acoustical paint. Tectum Corporation, Dept. AB, 105 S. Sixth St., Newark, Ohio.

a 24 page catalog presents pertinent data on new and approved convector ratings developed cooperatively by the trade and the NBS. Freestanding and semi-recessed steel convector enclosures also described. Roughing-in dimensions and installation data for convectors and enclosures are given, with tables and drawings. The National Radiator Co., Dept. AB, 223 Central Ave., Johnstown, Pa.





152—SLIDING DOOR HARDWARE — accessories, including guide strips, door guides and stops, flush and edge pulls are described in this 24 page catalog; casement window, storm sash and transom hardware also described and fully illustrated, with in-use drawings of installations. Complete specifications also given. Sterling Hardware Mfg. Co., Dept. AB, 2345 W. Nelson St., Chicago 18, Ill.

FOR MORE INFORMATION USE COUPON, PAGE 175

The Heart of Gunnison Homes Equipped With...

Hotpoint Electric Appliances



wo great names team together to provide luxury living in low-cost homes... Gunnison and Hotpoint. Better living begins in the heart of Gunnison Homes... in the kitchen and home laundry... where Hotpoint Electric Appliances make homemaking a joy instead of a job.

Here is an excellent example of how leading builders are making their homes more marketable. Hotpoint Appliances in homes strengthen the builder's reputation, enhance his prestige, and broaden his market. The home building industry and Hotpoint are mutually profiting through this partnership aimed at better values for home owners.

Become one of the builders who stand out above and beyond the rest because your homes offer *more* . . . with complete Hotpoint All-Electric Kitchens and Home Laundries.

Typical Hospoint Kitchen and Automatic Home Laundry available in Gunnison Homes.

The Catalina. Rambling in exterior appearance, the "Catalina" also provides spaceous interiors. It's the home with the look of tomorrow.

The Tellsmon. Based on designs by the nationally famous residential architect, Henry Hill of San Francisco.

The Coronado. Well-planned rooms, large picture window, wide roof overbang and sweeping horizontal lines... features that are capturing the fancy of home buyers.

The Champion. Available in three sizes, the "Champion" comes in two and three bedroom models with well-planned kitchens and adequate living area.

Hotpoint

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RANGES . REFRIGERATORS . DISHWASHERS . DISPOSALLS . WATER HEATERS FOOD FREEZERS . AUTOMATIC WASHERS . CLOTHES DRYERS . ROTARY IRONERS . CABINETS . DEHUMIDIFIERS

HOTPOINT Co. (A Division of General Electric Company) 5600 West Taylor Street, Chicago 44, Illinois



Why put old-fashioned storm and screen doors on the new homes you build? Make them more attractive, more practical, more "sell-able" with Alumatic ROYALS!

STORM-SCREEN DOORS

ROYALS add charm and extra value to every style of home and your buyers will go for their practicality! ROYALS take all kinds of abuse; never need painting; assure savings on upkeep and repairs for years to come.

Your local building supply dealer has the new Alumatic ROYAL - see for yourself how much more beauty and value the ROYAL can add to your homes. Special low contractor prices - delivered complete with all hardware, closer, and aluminum jamb - ready to install!

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Manufacturers of famous ALUMATIC and ARALUM aluminum combination	 Firm
storm-screen windows, screen doors, screens and	Address

Catalogs

153-FIREPLACES AND ACCESSORIES - attractive 20-page catalog gives complete descriptions of fireplace units with their specifications; fire-screens, andirons, grilles, dampers and other furnishings are also listed. Installations in living rooms, basement playrooms, Southern homes and vacation cottages are suggested. Bennett-Ireland, Inc., Dept. AB, 1151 Market St., Norwich, N. Y.



drawings, specifications and list prices of the company's complete line, including Colonial mantels and entrances, corner and kitchen cabinets. wall and base cabinets and shelves, window blinds, panel and slat shutters, gable louvers, basement window units. book cases and drawer chests. Gregg & Son, Inc., Dept. AB, 21 Blandin Ave., Framingham, Mass.

154-MILLWORK-a new

16 page catalog contains



155-WARM AIR DUCTS -for perimeter heating systems; these asbestos-cement ducts, furnished in 10 and 13foot lengths, are described in a 4 page folder, showing typical installations, application steps and a representative selection of fittings available. Useful illustrations. Johns-Manville, Dept. AB, 22 E. 40th St., New York 16, N. Y.



156-WOOD SCREWScomplete line of slotted head and Phillips head steel and brass wood screws is listed in this 12 page catalog. List prices are included both for packages and bulk shipments. Slotted head screws are available in flat, round or oval head types. Southern Screw Co., Dept. AB, P.O. Box 68, Statesville, N. C.

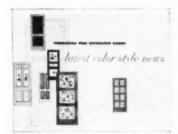
157-LIGHTING FIXTURES-five additional data sheets in a series being published on the manufacturer's complete line are now available. The literature describes concentric ring luminaries for use with silvered bowl incandescent lamps in the Super 500 and Super 1500 lines. The five bulletins cover three ring and four ring, 14-inch, 18-inch, 19-inch, 21-inch and 24-inch diameter ceiling and suspension type fixtures for use with lamps of from 150 to 1000 watts, with full descriptions and illustrations of the units. Silvray Lighting, Inc., Dept. AB, 100 W. Main St., Bound Brook, N.J.

FOR MORE INFORMATION USE COUPON, PAGE 175

Catalogs

158 - ALUMINUM WIN. DOWS-both projected windows and projected ribbon windows for schools, hospitals, commercial buildings and residences are discussed in this attractive 16 page illustrated catalog. Full size details and useful line drawings of a variety of projected-out and projected-in units enhance the value of the catalog. Complete and detailed specifications are included. William Bayley Co., Dept. AB, 1200 Warder St., Springfield 99, Ohio,





159 - DECORA. TOR DOORS-a 24-page, full-color booklet called "Latest Color Style News," is described as a complete and authoritative guidebook on how to make homes more attractive and more inviting to prospective owners through the use of decorated doors, Ponderosa Pine Woodwork, Dept. AB, 38 S. Dearborn St., Chicago 3, Ill.

160—OAK FLOORING—

the hardwood flooring that is is said to meet all the needs of radiant heating, called "Parkay" Gothic Oak, available in 8x8 and 12x12 inch units, 5/10-inch thick, with beveled edges, is described in this four page folder. This flooring is subject to minimum dimensional changes, as can be seen from tables determining relative swelling of wood after immersion in water. Parkay, Inc., Dept. AB, 5000 Crittenden Drive, Louisville, Ky.





161-FIN-TUBE RADIA-TION—illustrated 28 page catalog describes Linovector line of commercial radiation, including instructions for all types of installations with complete I-B-R ratings. Comprehensive pipe sizing tables for hot water or steam heating systems, dimensional data on enclosures, hangers, support brackets, joining pieces and dampers included. Vulcan Radiator Co., Dept. AB, 26 Francis Ave., Hartford 2. Conn.

FOR MORE INFORMATION USE COUPON, PAGE 175

Three *more* reasons why NATCCO bathroom cabinets outsell others!

NATCCO Cabinets are leaders because they represent quality plus economy. National offers features that no other company has. And National Steel Cabinet is the largest exclusive manufacturers of bathroom cabinets.

COUNTER & FLOOR DISPLAYS

Here's a counter display that will fit anywhere.

Made of sturdy materials, it displays the fast moving 1102FL GARFIELD model.

It requires no assembling. It

t requires no assembling. It has a pocket for "take one" literature. You buy only one model 1102FL to obtain it.



This well designed, four color floor display zooms cabinet sales. It attracts attention to any part of your store — where it effectively displays four cabinets — two lighted and two unlighted models. This beautiful display is furnished you free-of-charge with each order of 3 each of models 1102FL, 802, 1902FL and 1902P. Easy to set up—takes less than 5 minutes.



LITERATURE

NATCCO offers a complete line of handouts, mailing pieces, mats, catalogs, reprints, sale sheets—everything necessary for complete promotion of National Cabinets to your customers. All furnished free of charge.

NATIONAL ADVERTISING

Each month National Steel Cabinets are being promoted to thousands of architects, builders and other contractors. National advertising through trade and consumer magazine and direct mail tell the NATCCO quality story for jobbers and retailers.



SEND FOR THIS PROPIT MAKING STORY! Read further details of how the NATCCO line of quality bathroom cabinets means more profits for you. Your letterhead will bring complete details.



NATIONAL STEEL CABINET CO.



Bennett fireplace engineers . . . specialists in fireplace design for over 25 years . . . have built into these Bennett throat dampers dozens of proven performance and construction features. Whether you're planning a conventional, single opening fireplace, or one of the "unusual" arrangements so popular today—you'll find it eusier to design, easier to build with a Bennett Damper!

dampers



The famous boiler plate steel damper with the exclusive slip-joint feature, which takes up expansion that occurs when damper gets hot. 60° front slope gives sure draft. 8 sizes —up to 72″ wide, designed for easy lay-up of brickwork.



Improved higher-front design assures better draft, better smoke passage. Sturdy cast iron construction, with either cast iron or steel valve. Precision-cast in our modern foundry, Bennett cast iron dampers have no thin spots or weak sections to give trouble. Wide range of sizes.

Beneform Universal Damper

The amazing new damper that gives you absolute freedom of design expression—at moderate cost. Builds any one of six basic fireplace styles including projecting corners, three-sided openings, etc.

See your Bennett representative

Dept. C for free catalog.



rental housing sold can be listed as CAPITAL GAIN

John F. McCarthy
Attorney at Law



The sale of defense area rental housing, held for more than six months, may be regarded, for income tax purposes, as the sale of an investment giving rise to a long term capital gain and a consequent lower tax rather than to ordinary income. This possibility of tax saving should receive the careful consideration of builders.

Income taxes, of course, are an ever present consideration in all business decisions and future plans. Tax laws and regulations cast such an ominous shadow that they frequently dictate determinations which otherwise would be regarded as unsound. Too often we observe a builder shrugging off some doubtful decision which will result in a lower tax with a remark to the effect that in any event he is in such a tax bracket that the government will bear part of his cost or loss. This, unfortunately, will continue for many years. The decision of President Eisenhower and his advisers to seek a balanced budget before permitting any tax reduction has become apparent. This probably means no tax reduction this year and only small relief for the future. The onerous burden of income taxes will be eternal. Thus the builders' search for investments in properties which, on sale, for income tax purposes, will give rise to long term capital gains and consequent lower taxes must continue.

A builder's sale of land and improvements ordinarily is only the transfer of his stock in trade in the ordinary course of business and his return or profit is taxable as ordinary income. However, at the same time he may have investments in real estate which, on liquidation, will result in a capital gain. In

Farry vs. Commissioner of Internal Revenue, 13 TC 8, the Tax Court of the United States had occasion to consider such a situation. There a builder had acquired and developed two subdivisions near Dallas, Texas. improving them with single family residences which he sold on completion. However, over a period of years, he also had built or purchased several rental properties which he managed and from which he collected substantial rents. In 1944 and 1945 he sold most of these rental properties. The Tax Court held that the builder's return on his sale of the single family residences was taxable as ordinary income but that his profit on his liquidation of the rental properties was a return from the sale of investments and taxable as a capital gain. The proposition is well recognized. The result in each case depends on its own peculiar facts. The difficulty lies in applying each factual situ:

One transaction which may be regarded as giving rise to a return on an investment taxable as a capital gain is the sale of defense area rental housing held for more than six months. This would seem to follow from a decision of the Tax Court in the case of Elgin Building Corporation vs. Commissioner of Internal Revenue, ¶49015 P H T.C. Memo, which involved the sale of rental housing built under Title VI of The National Housing Act during World War II.

Title VI authorized FHA to insure mortgages on liberal terms on defense housing. That housing was required to be leased at fixed rentals to defense workers and could be sold only to tenants or to investors subject to the tenant's rights. The Tax Court held that the liquidation of that housing was the sale of an investment, and not a transfer in the ordinary course of business, and was taxable as a capital gain. The Court observed that Title VI housing could not be sold unless the tenant exercised his option to purchase or an outsider bought subject to the tenant's rights and said that "this circumstance stamped their primary purpose as rental or income producing housing" and as "capital assets."

Similarly, during the present emergency, defense area rental housing must be held for certified defense workers at fixed rentals for a period of two years in the case of one or two family units and for a period of four years in the case of three or more family units. This housing may be sold only to purchasers for investment purposes who agree to abide by those conditions. The same tax advantages, therefore, should be available for this housing as applied to Title VI rental housing during World War II.



America's Finest Garbage Disposer

No. 7 Visible Feature

a standard fixture in all

International Homes

Prefabricated "Modern Homes for Better Living"

International Homes, Inc. and their dealers know the influence "visible features" make on their customers—that is why they include the WASTE KING Pulverator garbage disposer as a standard fixture in their prefabricated homes.



You can be Proud of every National Home you build!



NATIONAL HOMES are pace-setters in style and beauty . . . "at home" in the smartest surroundings. They will give long lasting satisfaction because only the finest quality "brand-name" materials are used throughout. They are outstanding in value, due to our vast buying power and "one-package" method of distribution. For all these reasons, Nationals are the fastest selling, most popular homes on the market. Investigate their profit possibilities for you. Write or wire now!





National Homes prefabricated panels and structural parts as they leave the assembly plant carry the Good Housekeeping guarantee seal and the Parents' Magazine seal of commen dation as advertised therein.



George Vadnais Associates, Inc. Springfield 7, Mass.

owners.

In the past 2 years we have erected many hundred Nationals. Your advanced architecture, broad advertising coverage, quality "name brand" materials, and other great advantages have removed time-consuming tasks from my organization so we can concentrate on building and selling. The end product is more homes built, more happy home-

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Nation's Largest Producers of Quality Homes!



NATIONAL HOMES CORPORATION LAFAYETTE, INDIANA . HORSEHEADS, N. Y.

With the nation's finest to choose from, Gunnison Homes, Inc. uses Har-Vey as the best all-around hardware for rolling door installations.

ings, and other quality features offer home-owners a lifetime of smooth rolling without maintenance.

Har-Vey's rust-free aluminum track, self-lubricating bear-

Also, its practical design simplifies construction work and saves builders time and trouble on the site.

Compare Har-Vey's quality features and its amazingly Low Cost!

-Completely packaged set of hardware, track and accessories for 2' pocket door only \$2.70 List-Fob Destination!

A complete line for all your needs

CHALLENGER SERIES

-for doors to 70 lbs.

CHAMPION SERIES

-for doors to 100 lbs.

HAR-VEY HEAVYWEIGHT

-for doors to 200 lbs



Practical Har-Vey design makes hanging of doors a simple task in a Gunnison Home.



Owners enjoy extra space and convenienceand a lifetime of smooth rolling.



Write for full details -- Address Hardware Division Dept. O

METAL PRODUCTS CORPORATION

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Western Div. (Calmetco, Inc.) • 609 S. Anderson, Los Angeles Mid-West Div. (Plymouth Metal Products) • 505 W. Harrison, Plymouth, Indiana Please send me your free folder on rolling doors & Har-Vey Hardware $\mathbb{N} \triangle \mathbb{M} \in$

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For MORE and install new

A GREAT LINE OF MULTI-ELEMENT GAS FURNACES!



HI-FURNACES

For basement or utility room installation, ideal where flaor space is at a premium. Six sizes, with input capacities from 75,000 to 200,000 Bits. Smaller sizes shipped factory assembled. Every unit handsome and compact.



COUNTER-FLO FURNACES

For installation in homes using perimeter, radial or crawl space systems. Eliminate cold floors common to poorly heated basementless homes. Three sizes, all shipped factory assembled, in input capacities from 75,000 to 125,000 Btu. Approved for dose dearrances.



LO-FURNACES

Big and handsome, they are especially switable for basement installation. Ideal where ceilings are low. Six sizes, with input capacities from 75,000 to 200,000 Btv. Finished in peacock green ename!, as are all Silent Automatic units.

A GREAT LINE OF OPTIONAL OIL OR GAS FURNACES!





OPTIONAL HI-FURNACES affer all best features of oil or gas firing. Gas furnaces have fast acting automatic pilot, efficient monoport burner, special baffle to slow flue-gas flow for high efficiency, fully automatic controls and easily adjustable primary air shutter. Oil furnaces have precision built pressure burner, balanced fan for quiet operation, positive displacement pump, and fully automatic controls. Entire burner is factory tested before shipment.









OPTIONAL LO-FURNACES, as all Silent Automatic units, feature heavy cabinet-steel finished in peacock green enamel. Resiliently mounted blower, large air filter, heavy-gauge welded-steel heat exchanger. Gas furnace has special monoport burner with flame baffle for efficient combustion. Oil furnace has precision built pressure burner designed for thrifty, trouble-free operation.



GAS BOILERS!

Constructed and tested according to ASME standards for low pressure boilers. Model shown for use in gravity and forced hot water heatings installations with all types of radiation. Higher capacity models available for use with vapor, steam, forced hot water or gravity hot water installations. All meet latest AGA approval requirements for normal and high altitudes.





Silent Automatic oil burners are factory tested for alignment, pressure resistance and electrical quality. They are approved by Underwriters' Laboratories, Inc. Feature an adjustable pedestal with rigid bolf locking device which assures firm support, easy height adjustment, easy installation,



GAS BURNERS!

One of the most efficient gas conversion burners available! Has cast chrome alloy flame spreader which deflects flame toward furnace walls for high combustion efficiency and long life. Venturi scientifically designed for proper mixing of gas and air. Controls concealed by easily removable cover. Cabinet is unusually compact and handsome, exhending only 10½ "from front of heating plant.

PRODUCTS OF ONE OF THE MOST FAMOUS NAMES IN AUTOMATIC HEATING . . . TIMKEN SILENT AUTOMATIC DIVISION!

FASTER kome sales... Silent Automatic!

ASK YOUR HEATING MAN NOW ABOUT THIS FAMOUS-NAME HEATING EQUIPMENT?

What an impression the new Silent Automatic line is making on America's builders! Alert building men recognize it instantly as a line that can move more homes-faster!

Silent Automatic was designed with the builder in mind. It offers so much *more* of what you need to keep installation costs down, home sales up.

You're off on the right foot with the home buyer when you specify Silent Automatic for your homes. He knows Silent Automatic, and he's happy to have this famous-name equipment in his home!

It's a complete line—there are gas-fired and oil-fired furnaces, boilers and conversion burners in sizes and ranges to suit virtually all your building needs. It's a quality line—equipment that will build lasting customer satisfaction for you. It's flexible—there's a whole series of furnaces that can be installed when the house is first built. Then the customer can wait until later, if he wishes, before deciding on gas or oil burner and controls. You save on installation with Silent Automatic—most units come factory assembled. Best of all, it's available—you can get the unit you want when you want it, direct from your heating contractor.

Specify Silent Automatic in the homes you build, and watch your profits grow! Write today for the name of your nearest Silent Automatic supplier.



Does the equipment you now install meet these 5 profit points?

FAMOUS NAME?

QUALITY PRODUCT?

COMPLETE LINE?

AVAILABLE WHEN AND WHERE YOU NEED IT?

FACTORY ASSEMBLED UNITS FOR EASY INSTALLATION?

Silent Automatic does!

A COMPLETE LINE OF FURNACES, BOILERS AND CONVERSION BURNERS FOR EVERY TYPE HOME!



Here's new scope for you in planning acoustical installations. Today, Nu-Wood acoustical tile is available in a combination of four variegated shades, ranging from rose-tan to greyed-tan-to add the charm of fadeproof color to acoustical

Nu-Wood Kolor-Fast acoustical tile is ideal for side wall installations, either in commercial buildings or homes where better-than-average sound correction is desired. It forms a perfect combination with Nu-Wood Sta-Lite-the high light reflecting acoustical tile that actually grows brighter with age. Now, with Kolor-Fast and Sta-Lite acoustical tile, you can offer owners advantages never before available in insulating acoustical tile! WOOD CONVERSION COMPANY, Dept. 119-53 First National Bank Building, St. Paul 1, Minnesota.



Endless Design Variety!
With the combination of four variegated shades of Nu-Wood Kolor-Fast acoustical tile—plus Sta-Lite plain and Sta-Lite acoustical tile—design possibilities are practically unlimited for both commercial and residential work.



Pencil Line Bevel! Here's another Nu-Wood feature —a shadowline joint for greater beauty and distinction. Just another example of the extra quality which puts Nu-Wood in a class by itself.



Easier Application! The famous Nu-Wood clip system famous Nu-Wood clip system provides complete wraparound support for both Kolor-Fast and Sta-Lite acoustical tile—permits fast, correct application and center-of-ceiling starting of tile. Or, if desired, Nu-Wood acoustical tile can be applied with Adbestik.



Tongue and Groove Joints Weld Tiles Together! The specially designed tongue and groove joints of Nu-Wood acoustical tile assure tight joinings that stay tight, look better. Air movement through joints is reduced, thus minimizing collection of surface dirt.



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

here's how to get the most out of ROPE

part 3—knots and hitches —how to tie and use them

By R. C. Weaver*

Probably the most interesting phase of rope handling is that of knots—and how to use them as a short cut in your job. Seven of the most useful knots and hitches to a builder are described herewith:

Figure eight-

Not much more difficult to tie than the simple "overhand" knot that's the knot everyone knows how to tie—the figure eight has the advantage of being much easier to untie. It is also larger, stronger and doesn't injure rope fibers.



To tie: make an underhand loop. Bring the end around and over the standing part. Pass the end under, and then up through the loop. Draw up tight.

Among many everyday uses, the figure eight is the best knot to keep the end of a rope or "fall" from running out of a tackle or pulley.



Rowline-

Sometimes called "the king of knots," the bowline is probably one of the most useful knots of all. Properly tied, it never slips yet can be untied easily when necessary.





To tie: make an overhand loop with the end held toward you. Pass (Continued on page 188)

			uthority or Plymouth	
	mouth,			
Ply	mouth,	Mass.		

		SAFE SLING LOAD	S	
Rope Dia. Inches	占	₹00.	45	30.
74 76 77 114 115 123 124 127 127 127 127 127 127 127 127 127 127	120 270 530 880 1080 1540 1800 2400 2700 3700 4500 6200 8200 9300 12800 12800 1200 12000	210 470 920 1520 1870 2650 3100 4150 4650 6400 7800 9200 10800 14200 22200 26600 31500	170 390 760 1260 1250 2200 2600 3450 3900 5300 6500 7600 11800 11840 18400 12200 26200 30500	120 270 530 880 1080 1540 1800 2400 2700 3700 4500 5300 6200 8200 9300 12800 15400 18200 21000

This chart was prepared by the New Bedford Cordage Co., New Bedford, Mass., to indicate the safe sling loads for manila ropes of varying diameters used at three different sling angles. Sling loads are given in pounds



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Intended for exherter shingles, on read or exterior walls of your home or other building. THOROLOK is prepared in als beautiful pastel colors Ask for Cale Cond 33.5.



THOROLOK

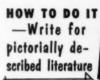
Prepared especially for basement Rears which need protection and corrects unsightly appearance. Furnished in six beautiful colors. Ask for Color Card 32-C.



THOROCLEAR

Clear, water-repellent material for persus brick, stone, cencrets, stucce, eabestes stilling and shingles, interior plaster and mesonry surfaces, where texture and color are to be retained.

To comply with requests of our customers, dealers and distributors, we have completed years of research and tests on three new products to add water-repellent materials and coatings to The THORO System, for protection to any type surface.





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Its pure aluminum foil sheets reflect 95% of all radiant heat . . . instantly, continuously. And Alfol can't absorb or store up heat.

This proven efficiency saves—and sells! It often promotes the use of a smaller air conditioning unit. And it always promises lower cooling costs... longer equipment life; reduced winter fuel costs... real condensation "insurance."

Yet Alfol will probably cost less than the material you're now using! And, packaged in handy 500 or 250 sq. ft. rolls, it can halve handling costs. Made in 5 types, 4 widths. For full details write Dept. AC... today.

BUILDING BLANKET INSULATION

A Subsidiary of



Berg-Warner NEW YORK 17, N.Y.

ROPE

(Continued from page 187)

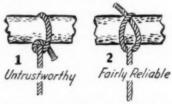
the end up through the loop, then up behind the standing part, then down through the loop again. Draw up tight.

Uses for the bowline are practically unlimited; it is particularly handy wherever a loop is required as it can be depended upon not to slip. The sketch below shows how it can be used to lift a barrel.



Half hitch-

Most hitches differ from knots in that they are tied directly around an object, instead of first being tied in the hand and then placed over the object. The half hitch is the simplest of these forms.



To tie: pass the end of the rope around the object and tie an overhead knot to the standing part. If the end is pulled close around the standing part the hitch is not reliable. When the end is tucked under the turn of the rope some distance away from the standing part, the hitch is fairly reliable for temporary use.

The half hitch is generally used for fastening to an object for a right-angle pull. It is fairly reliable as long as the pull is steady and the arrangement of the hitch is not disturbed. Two half hitches—which means just what the name implies: a half hitch tied twice—will be much more reliable and can be put to almost any use.

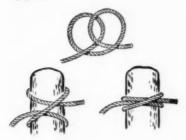
(Continued on page 189)

ROPE

(Continued from page 188)

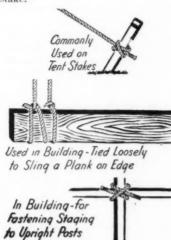
Clove hitch-

The clove hitch has earned the name of "builder's hitch" because of its extensive use in fastening staging to upright posts. It can be tied in the middle or end of a rope but, since it has a tendency to slip when used at the end, that end should be half-hitched to the standing part.



To tie: make a turn with the rope around the object and over itself. Take a second turn around the object. Pull the end up under the second turn so it lies between the rope and the object. Tighten by pulling on both ends.

The clove hitch is used for fastening staging to upright posts but there are many other important uses. Tied loosely it is used to sling a plank or edge, or it comes in handy for tying a guy line to a stake.



Timber hitch-

Here is a simple, convenient hitch which does not jam and un-(Continued on page 190)

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KoolShade Sunscreen stops heat outside . slashes the sun load on your houses.

KoolShade Sunscreen enables you to standardize on one size of air conditioning unit, regardless of the exposure of the house.

This gives volume purchasing power on air conditioning equipment; lower installation costs for you . . . lower operation costs for your buyers. The cost of KoolShade sunscreen is nominal and is returned many times through these savings.

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

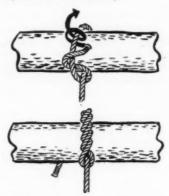
BUCYRUS

BUCYRUS-ERIE COMPANY SOUTH MILWAUKEE, WISCONSIN

ROPE

(Continued from page 189)

ties readily. Generally, it is used in conjunction with two half hitches to provide added security.



To tie: pass a rope around the object, take n turn with the end around the standing part. Then, turn the end back on itself two or three times, with the turns following the lay of the rope.

This hitch is used mainly to tow or hoist cylindrical objects such as logs, spars, etc.



Used for Housing Logs on Object on End

Cat's paw-

A very satisfactory and easily made hook hitch that doesn't jam and unties itself when removed from the work.





To tie: grasp two bights (loops) held well apart and twist each of them away from you. The two loops thus formed are then brought together and placed over the hook.

The cat's paw is commonly used in slings for heavy hoisting.

(Continued on page 194)



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Who stole the Builders' Show?



ONC Did you see the First Public Demonstration of Delta Carbidetipped Saw Blades—engineered specifically for use on radial saws?

These new carbide-tipped blades—with cutting teeth of tungsten carbide—the hardest applicable metal known to man—can mean tremendous savings to you, as a builder. Now they are available at POPULAR prices.

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Once you use a Delta carbide-tipped saw blade you'll never own any other. You'll find it will quickly pay for itself. Try it on your radial saw today!



the DELTA Radial Saw!

Profit-minded builders looking for faster "job-site" methods got an eye-full at demonstrations of the saw that cuts at any angle through 360° above the work table!

Thousands who attended the Home Builders Show

in Chicago, hunting for labor-saving, cost-cutting methods, asked for a demonstration of the Delta Radial Saw—and went away completely "sold" on this new, sure-fire way to slash construction costs.

You'll increase output tremendously, save time and labor, boost profits by mass-production methods possible with this saw.

- · cuts at any angle
- cuts any lumber, hard or soft
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Get complete information on this remarkable saw—to find out how you can increase your profit. Use the coupon for latest literature.



Have your own demonstration RIGHT ON YOUR OWN DESK!

By means of this scale model of the new Delta Radial Saw your Delta dealer can show you exactly how this saw works, how the controls operate, how the blade can be set accurately in any position through the entire 360°. Write us—and ask for your "on your desk" operating demonstration of this remarkable new machine.

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- V Exclusive turret action—saw operates through entire 360° at any angle.
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ROPE

(Continued from page 190)

Sheepshank-

Slightly more complicated than some of the other hitches, the sheepshank requires care in its tying.



To tie: form an "S" loop in the bight, as shown. Then with one free end of the rope make a half hitch and slip it over one of the loops. Tighten and repeat with the other loop.

Often used to shorten a rope temporarily, the sheepshank is valuable as a sling for ladders. In such a case, both half hitches should be drawn together firmly.



The knots and hitches described in this article are by no means all of those that you will find useful, but they do form a basic number that will serve as handy working tools in your daily job. The right knot or hitch is no more difficult to tie than the wrong one. But the use of the right one will pay off in added safety, longer rope life and less all-round irritation on your part.

NEXT MONTH

This four-part series will be concluded with some valuable tips on how to take care of your rope to increase its life.

dealer training manual

A Dealer Training Manual, prepared by the Educational Committee of the National Retail Lumber Dealers Association, is now available for \$1.50 a copy. It explains how dealers can teach employees or employees can learn for themselves the retail lumber business, its products and their jobs.





GENERATOR for OPERATING POWER TOOLS

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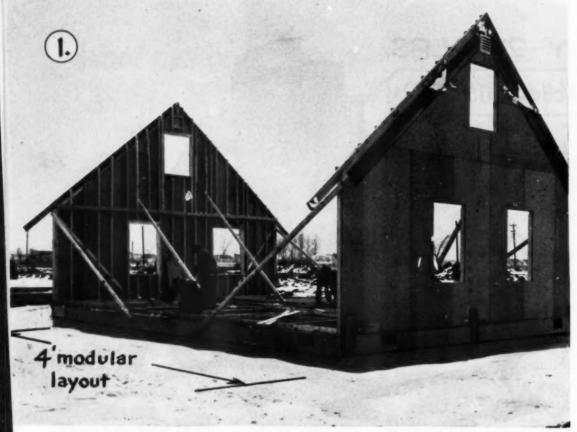
ate electric saws, grinders, drills, routers, sanders, table or radial saws ... with no drain on the generator or the efficiency of your tools.

You can operate these tools, or floodlights, when you need them, any place without worry over your power supply.

Write, for complete information on this new, rugged, dependable, highpowered Homelite Generator, today.

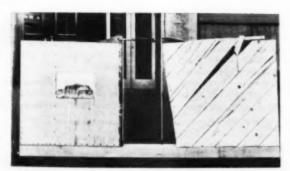


MAY 1953



Best way to speed installation of insulation board sheathing is to lay building out in 4-loot modular dimension, say building experts. Small pieces left over need not be wasted. Use them for filling in ground windows, doors, etc.

four ways to save with insulation board sheathing



Time is saved with insulation board sheathing because it insulates, builds, and eliminates need for as much supplementary structural bracing. "Racking" tests like this one can be used to prove the bracing strength of this type sheathing

Place & Company, South Bend, Indiana, uses insulation board sheathing to realize the utmost of its main advantages.

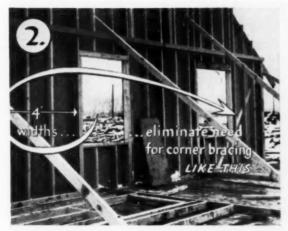
First, Place homes are laid out on a 4-foot modular basis, so that they take full advantage of the 4-foo. widths of this sheathing, and take better advantage of 4-foot wide gypsum wallboard used on the interiors.

Insulation board sheathing is thus used to build and insulate at the same time with minimum waste, according to the Insulation Board Institute.

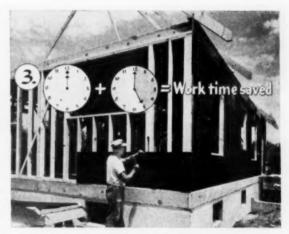
A conventional frame wall, sheathed with regular state inch thick insulation board sheathing, plastered on the inside, has a "U" Factor of 0.19.

Second, because the organization installs the 4-foot wide insulation board sheathing panels vertically, with proper nailing, they do not install let-in bracing.

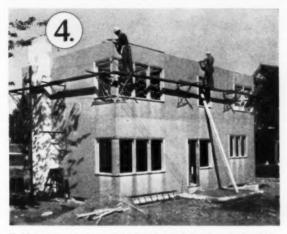
"This eliminates a lot of fussing around." Andrew S. Place says, "and saves us from \$15 to \$20 a house." Many modern building codes, including several of na-



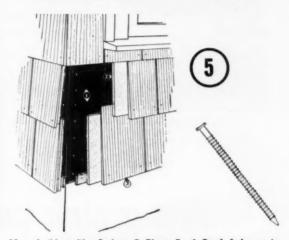
Insulation board sheathing, like that applied vertically on this Mills & Sons home, is accepted by FHA for use without further corner bracing, can be used as the only sidewall insulation



Wide-width insulation board sheathing reduces number of cuts required. On a house with 1,050 square feet of sheathing area, you can easily trim five hours off working time



Building paper is not required with insulation board sheathing, since it's treated with asphalt to be water repellent. Check local building requirements, however. FHA requires building paper with this type of sheathing only behind stucco exterior finishes



Many builders, like Andrew S. Place, South Bend, Ind., are incorporating this new method of applying wood shingles to fiberboard sheathing. It requires nailing of wood shingles directly to sheathing in conjunction with fiberboard shingle backer

tional scope sponsored by building officials' organizations, permit the use of large panel insulation board sheathing vertically applied without supplementary corner bracing.

While FHA has established a test for the approval of structural insulation board sheathing without supplementary corner bracing (it also recognizes the structural quality of this material), it has been shown by the experience of many builders that this savings in installation of let-in bracing, alone, amounts to about \$20 for a house requiring approximately 1,050 square feet of sheathing.

Third, Place is also taking advantage of a new method of applying wood shingles to fiberboard sheathing to save cost and time. This new method consists of nailing the wood shingles directly to the fiberboard sheathing in conjunction with an undercourse of fiberboard shingle backer.

Fourth, you save on building paper. Since this

sheathing is treated with asphalt to be water repellent, it eliminates the need for building paper, unless required by local building regulations or unless an unusual moisture condition exists in the structure (under FHA Minimum Property Requirements building paper is required only behind stucco exterior finishes).

Fiberboard is customarily covered with such exterior facings as wood siding, masonry veneer, stucco, shingles, etc. These should be nailed directly into studding or secured to wood nailing strips nailed directly to studding, although modern methods of attaching, such as the backer board system explained above, are being widely used. In the construction of farm buildings, or a temporary work shop, insulation board sheathing can be used without any additional material over the exposed surface other than two coats of paint. But cover the vertical joints between insulation board sheathing with batten strips or seal them with an asphalt emulsion or other sealing compound.

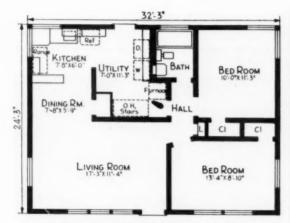


A typical International home with carport attached. Second floor is left unfinished for future expansion

this prefab package includes special customer service



Four bedroom house with attached two-car garage indicates size increase possible using standard units



Floor plan of standard two-bedroom unit

A completely packaged prefabricated house plus a customer service which includes aid in land planning, financing, advertising, and selling are the pegs on which house prefabricators, International Homes of Mineral Ridge, Ohio, are currently building their future.

The wide selection of house designs offered (18 in all), and the ease with which these prefabricated units can be expanded from two to three and four bedroom homes with attached breezeways and two car garages, are the result of the methods of fabrication employed by the firm.

One is the factory assembly line method where standard wall and roof panels are produced on jigs: the other is the site assembly method with field application of some finish material. The interior finish, including trim and drywall material, is shipped in bulk to the site of the house and installed by the local builder after the house is closed in.

Exterior walls of the houses are paneled, with each panel designed for a specific position. The size of the panel is determined by the house design. Except in extreme cases, each wall is fabricated as a single unit. It is factory sheathed and sided with a prime coat of paint applied to the siding, and with the windows and door jambs in place. Interior partitions have their trim and casing finish painted. Doors are finish painted, hinged and bored for locks. Roofs are paneled to receive shingles, which are in the package. Other package items are combination storm doors, nails, screws, locks, hinges, ventilating fan, kitchen cabinets, and a kitchen sink.

(Continued on page 200)



Floor plan of four bedroom unit

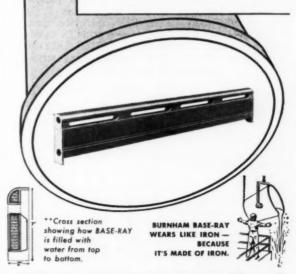


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CAST-IRON BURNHAM BASE-RAY

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- **3.** Only the smart streamlined appearance and minimum cross-section (2"x7") of BASE-RAY offers the ultimate in unobtrusiveness. That means better interior decor!



Whether it's a new installation or a modernization job, the pride, the comfort, and the satisfaction of your customer will best be served by this sturdy cast-iron BASE-RAY Radiant Baseboard installation. Standardize on BASE-RAY and your reputation for good judgment will never be in danger.

*Reg. U.S. Pal. Off.

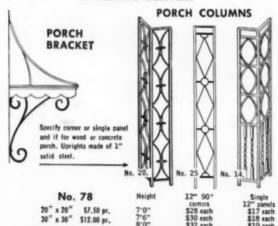
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FIRST IN THE MANUFACTURE OF
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cost. There's no assembling on the job, because Artcraft's finished products come to you completely packaged to measurements. Saves costly labor time. ARTCRAFT'S CUSTOM WORK PRICES COMPARE WITH COMPETITIVE STOCK ITEM PRICES! ORDER THESE STOCK ITEMS NOW IMMEDIATE DELIVERY



Send in your specifications for custom work. Your design will be carefully and expertly carried out with the most exacting detail. Three weeks delivery.

ARTCRAFT ORNAMENTAL IRON CO.

720 E. HUDSON ST. - COLUMBUS 11, OHIO



Snack bar with open shelves above forms separation between dining room and kitchen

(Continued from page 199)

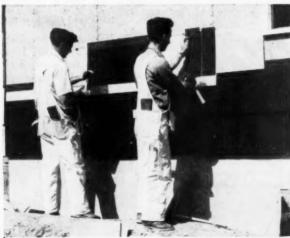
The design of the basic two-bedroom house is contemporary, and construction methods are conventional. The house is built on a slab. The slab is insulated against moisture by a membrane and rigid insulation around the perimeter. Two types of warm air heating systems are available: a down-flow type furnace with ducts in the slab, and an upright type with furred down duct area in the hall ceiling.

The living-dining room, kitchen and utility room comprise one large area. A short stub wall separates the kitchen and utility room, and a snack bar provides the dividing unit between the kitchen and dining area. To provide maximum wall space for furniture placement in the bedrooms, sliding type, aluminum strip windows are used in all models. The window wall in the living room is double glazed.

Two family duplexes, medical centers, motels, and other small structures with simple room arrangements can be designed to utilize the standard wall units this firm manufactures.



The basic house without carport



Is it cheaper to do your own carpentry or subcontract the work?

one builder's secret of HOW TO SAVE MONEY

Very little subcontracting, a mill on the site, timesaving materials—they all add up to economical building in the experience of Meadowbrook, Inc., project builders in the Washington, D. C., area

By E. C. Burgdorf, Firm Member in Charge of Production

Whether to subcontract, or build your own carpentry and labor force—this is an important and controversial question. It can be argued various ways. But here's what we find:

First and foremost, by doing all our own carpentry and labor, and letting out very little work to sub-contractors, we can control the flow of our production. When you sub all your work, many times you will wind up at the end of your production line with a bunch of incomplete houses that can't be turned over to the buyers. Naturally, this costs money.

Also, with a sub operation there's not much you can do about the delays of weather, materials hold-up, non-preparation of site, and so on. With our type of operation we can largely overcome these delays by shifting manpower as needed.

Our on-the-site mill is one of the biggest money savers we have. It was set up for us by the DeWalt people. In the mill we do these things:

- (1) Cut rafters to size and notch them.
- (2) Cut studs to size and notch them.
- (3) Cut and fabricate the frames for rough openings around doors and windows.
- (4) Cut under-window studs to size.
 (5) Cut gable end studs to size, bevel, and number them for sending to the job as needed.
- (6) Fabricate parts for back stoop and prime them.
- (7) Cut and prime all exterior trim, molding and cornice boards.
 - (8) Fabricate parts for linen closet.

Take the last item, for cost example. The materials and labor to assemble the linen closet cost us \$32. The best quotation we could get on this item done outside was \$60; we are saving \$28 per house on this item alone. Our total present project involves 550 houses, so we are saving a total of \$15,400 on this one item alone.

Time-saving materials are also very important to us. By the use of Insulite structural insulation board

(Continued on page 202)



NEW DRIVE-IT 320 With BREAK-OPEN ACTION



MAKES SPLIT-SECOND FASTENING TO CONCRETE EASIER THAN EVER

BREAK-OPEN ACTION for fast, easy loading and extraction makes new DRIVE-IT "320" the easiest operating stud driver on the market. This smooth-working action means a greater saving to you on concrete or steel fastenings.

Here are other exclusive DRIVE-IT features that make it the best tool available:

ONE POWER LOAD. No need to buy and stock various strength power loads with exclusive **DRIVE-IT** power control method.

AUTOMATIC EXTENSION BARREL allows fastenings inside junction boxes and other recesses. No need to buy and attach extra barrels.

SWIVEL SAFETY PAD of tough rubber and steel protects operator and permits fastenings next to walls.

SAFE two-handed firing sequence and length of tool offer maximum protection. Can't be discharged accidentally or in mid-air.

DRIVE-IT pins are listed and approved by Underwriters' Laboratories.





AUTOMATIC

DRIVE-IT
the original
POWDER ACTUATED TOOL

MAIL NOW FO	R MORE INFORMATION
POWDER POWER T	OOL CORP.
7526-D S. W. Macadar	n Portland 1, Oregon
	a free demonstration of DRIVE-IT. rature on new DRIVE-IT 320.
NAME	
ADDRESS	
ADDRESS	

how to save money

(Continued from page 201)

we've been able to save \$19,525 on our first group of 275 houses. We are finding for instance that the 4x9 sheets of Bildrite sheathing save \$5 per house in labor. Another \$16 per house is saved because the FHA-accepted bracing strength of these 4x9 sheets makes it possible to omit corner bracing.

We cover the porch ceiling on our house with a 6x9 sheet of insula-



Next to operating a mill on the project, the use of time-saving materials is a must for economy building. Insulation board used for (1) sheathing. (2) soffits and (3) a porch ceiling can save up to as much as \$71 per average tract house

tion board, which saves \$16 per

Instead of plywood for soffits on our 16-inch overhang, we're using a primed insulation board. This represents a saving of \$11 per house.

Finally, another \$23 a house is saved by using an insulation backer board in place of low-grade wood shingles. Our sidewall system is double-course shingle application over backer board over insulation board sheathing. This system saves nearly 14-man hours a house.

T HIS 720-square foot house is being built and sold by the March Building Co., Inc., Tacoma, Washington for a little less than \$10 a square foot. The price is \$7,000.



Each house has a wide overhang to protect planter and front door

builds detached equity apartments for \$7,000

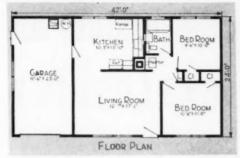
Down payment, including finance charges and fire insurance, is \$450. Monthly payments are \$50, including taxes and insurance.

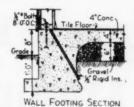
James H. March, president of the company, conceived the house as a detached equity apartment for young married couples, or those who are retired on small incomes. He is not selling expandability to young couples nor the idea that it is a house they will keep after their families outgrow the space. Monthly payments are lower than rent for even smaller quarters in apartment buildings, and the theory is that young couples will accumulate equity instead of rent receipts in the first few years of their marriages. and then convert the equity into a down payment on a larger and more expensive house when they need it.

Individuality is given the exteriors with color and varied materials. This is considerably heightened by using a wide variety of different patterns for the garage doors, prominent features of the front elevations.

The attached garage is deeper than usual—24 feet. It contains a laundry tray and automatic hot water heater. Connections are roughed in for an electric washer. Ample space remains for storage of garden tools, children's play equipment, and cabinets the owner may build for storing off-season items. Building paper is applied to the outside of the garage studs, with gypsum board on the inside, thus providing a finished garage interior.

The concrete slab floor is laid on coarse gravel spread over the original grade, and insulated from the foundation wall with asphaltic insulation board.





Section detail of foundation

Note large living room, oversize garage and ample eating space in kitchen



MESKER BOWSTRING TRUSSES

When clear, unobstructed floor areas in widths from forty to one hundred feet are required, thousands of buildings already erected prove that Mesker Steel Bowstring Trusses for the roof construction is the most inexpensive of any other design.

Designed to suit your particular roof loadings, when spaced as your plans require; in accordance with A. I. S. C. specifications and Rivet Not Welded for absolute safety.

WRITE FOR INFORMATION

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Fabricators — Evansville, Indiana — Engineers



This happens to a frame house . . .



One-half mile away . . .



When an atom bomb . . .

can we build against an ATOMIC EXPLOSION?



space. Complete range of sizes. Each unit (onepiece, no attachments), has Hug-Tite Flanges for tight fit to foundation wall. LUX-RIGHT Areawalls outlast the house. Need

LUX-RIGHT Areawalls outlast the house. Need no paint. Speed of installation saves time, labor, money. FREE illustrated folder shows sizes and proper installation. See your distributor, materials dealer, or write us.





SAINT PAUL CORRUGATING CO.

Expert Sheet Metal Manufacturers for 68 Years SOUTH END WABASHA BRIDGE . SAINT PAUL 1, MINN.

The effect of an atom-bomb explosion on the "typical American frame house" was graphically shown in a March 17 test, conducted at Yucca Flat, Nevada, by Atomic Energy and Civil Defense officials,

A half-mile from the point of explosion a two-story frame dwelling was completely disintegrated by a bomb smaller than the ones used in Japan in 1945.

Another frame house, a mile and a half away, remained standing, but with windows and doors missing. It apparently suffered serious structural damage.

The extent of damage to this second house was still being studied and evaluated three weeks after the test. Civil Defense officials expect to issue a detailed technical report of their findings.

A brief inspection of the house, made soon after the explosion, revealed that splinters of window glass went through the rooms like hail. Door-knobs were reported blown off, shingles missing and venetian blinds shattered.

Roof beams on the front of the house were broken, and floors sagged on broken joists. The paint was scorched by heat from the blast, and plaster was "badly cracked." The basement was relatively undamaged.

There was no fire outbreak, but the chances for such would have been greater if the house had been equipped with utilities—gas and electricity. Drapery or rugs would have added still more to this danger.

The two test houses, complete with basements and furnishings, were constructed on the spot to find out just what an atom bomb might do to an American home.

Both houses were two-story frame buildings. The Civil Defense Ad-



Explodes!

ministration identified the houses as "standard American designs" each with a basement built of cinder block with concrete floor.

The houses had clapboard sidings, and walls and ceilings were plastered. Utilities (plumbing, heating and lighting) were omitted to reduce cost. Bomb shelters were located in the basements, and stood up well in the tests.



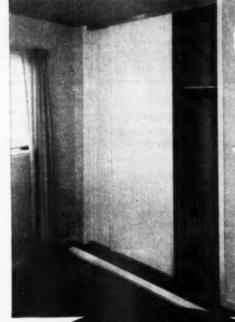
A mile-and-a-half from the bomb blast, the rear of a "typical" frame house looks virtually untouched . . .



But the front, which faced the explosion, shows greater damage . . .



In the basement, beams were cracked



GREATER VALUE..

- NEW MODEL "H"-OVERHEAD HANGING GLIDING ROLLER TYPE
- STANDARD MODEL "R"-BOTTOM ROLLER TYPE
- BOTH FLOOR-TO-CEILING OR STANDARD HEIGHTS
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 LABOR AND MATERIALS
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Sliding Doors

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Aluminum bottom door guide is screwed to the floor.



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with built-in permanent Alnico magnet. Never loses its power to hold!



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NO FACTORY REPAIRS NEEDED

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For Easy Inexpensive Ventilation ONLY THE "MIDGET" LOUVER HAS

THESE PATENTED FEATURES Slots for Tension and Sure-Grip Swedge Fasteners for tight fit and firm, permanent anchorage.

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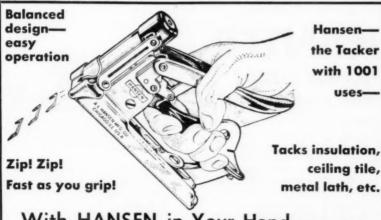
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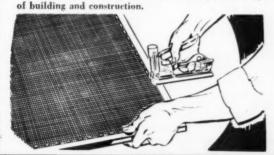
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Tacks screens, too!
Models made especially for screen tacking.
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how to make a GOOD LAWN

a checklist for builders

The seeding of a lawn is an important part of the home building operation and plans for it should not be deferred until the last minute. Prepare and plan for the seeding of the lawn area as soon as the major outside work on the house or houses is completed.

Rest Time to Seed

The best time to seed is in late summer or fall, but if seeding must be done in the spring, schedule it as early as possible so that the grass will get a start before the advent of hot weather. Generally, seeding during late spring and early summer should be avoided unless there are facilities for regular watering.

Save That Topsoil— It's Worth Money

It is somewhat easier to grow grass on subsoil than it is to produce a crop of hair on a billiard ball; but both projects are impractical. You can easily waste \$500 to \$600 on a job by covering original topsoil with subsoil excavated from the basement. Most building sites have from four to eight inches of natural topsoil on them. In terms of a 50x100-foot lot this means from 80 to 160 cubic yards with a current market value of about \$3 or \$4 a yard.

Points on Grading

Complete the rough grading as soon as possible. This gives any fill dirt time to settle. It also puts the area in shape for seeding on short notice.

Generally speaking, it is well to follow the natural contours of the ground, though the lawn should have a slight slope away from the foundation to insure run-off of excess water. Often the only rough grading



atlas 6" JOINTER

PERFECT FOR CABINET WORK AND BUILT-IN UNITS



New 3 point fence mount assures greater rigidity and accuracy!



Cutter head removes to sharpen

Take this Atlas 6" jointer right to the job (2 men carry it easily)—and you cut time costs on almost every surfacing operation. It handles planing, edging, truing, beveling, and rabbeting much faster and more accurately. It cuts costs on cabinet work, fine finishing of all kinds, planing doors, windows, as well as mass producing built-in units.

You'll like its size, speed, and smoothness. Table is 42" long with a precision ground surface! The solid ground two-way tilting fence is 32" long, 4½" high. The heavy 2¾" diameter cutter head spins on large sealed-for-life ball bearings. Exclusive features include a time-saving width-of-rabbet scale, and simultaneous blade positioning.

The Atlas 6" jointer will make money for you. Send for the latest catalog.

ATLAS PRESS COMPANY

501 North Pitcher Street . Kalamazoo, Michigan

DEPENDABLE QUALITY TOOLS SINCE 1911

how to make

(Continued from page 207)

necessary is adjacent to the house itself. Usually this involves backing filling to within six inches of grade level around the foundation. Top-



Photos and data couriesy of O. M. Scott & Sons Co.

A gradual slope away from the foundation insures run-off of excess water

soil should be replaced to a depth of six inches and sloped gently to the surrounding lawn area.

If extensive grading is needed, topsoil should be stripped with a bulldozer or other soil-removing equipment and the subsoil grade



A small buildozer handles topsoil removal, subsoil grading and rough grading operations including replacement of stockpiled topsoil to c six-inch depth

established to insure proper runoff of water. Storm sewers, downspout drains and water or gas lines can usually best be installed before replacing the topsoil.

If the subsoil has been severely compacted by heavy grading equipment, the top couple of inches should be loosened by cultivation before the topsoil is replaced. This helps the two soils to intermix and prevents objectionable layering of soil types. Heavily compacted subsoil often prevents the proper movement

a GOOD LAWN

of water and air, the result being a poor stand of turf.

Final Preparation for Seeding

This is best done just before the planned date for sowing the seed. If the topsoil is compact or full of clods, it should be cultivated to a depth or from four to six inches. Most soils work best when they are in a drier state. Before final working, incorporate agricultural lime-



Using a tractor with disc, harrow and drag eliminates most hand labor in final soil preparation before planting seed

stone if a soil test indicates that it is needed.

Final Grading by Hand

Final grading is best done by hand using large wooden rakes. Stones and other debris that have worked to the surface should be removed. Low spots that might retain



Final seed preparation is best done by hand raking. Ordinary steel gardon rakes are commonly used but larger wooden rakes do the job quicker and better

water should be filled. Grading stakes with string levels or straight edges will usually be needed to level the final seed bed properly.

(Continued on page 210)



Architect: Miller & Voinovich, Cleveland, Ohio

GREAT IDEA FOR WALL BOOKCASES

Back up the shelves with translucent Blue Ridge Patterned Glass. It forms a beautiful background for books—even unfilled shelves are attractive. It's an idea that is sure to win home buyers' admiration.

The glass is easy to install. It's self-decorating—doesn't need painting. And it decorates the wall on the other side, too.

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ing used in many ways by builders to make their houses more interesting to prospective buyers. Our book, offered below, illustrates many of these ideas.

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Gentlemen: Please send Builder's Literature and complete information on Gate City Awning Windows.	AR-5
Name	

Address ______State

a GOOD LAWN

(Continued from page 209)

Grass Food is Essential

Grass food is essential and is easily applied with a mechanical spreader just before the final raking. Rates of application of various fertilizers will vary depending on their analysis. If the plant food used is prepared especially for the feeding of grass, the cost of the material per 1,000 square feet will run about \$1.50. It is downright foolish to skimp on fertilizer when its cost is so small and the benefits so great.

Sowing the Seed

Put your faith only in a top quality mixture of perennial grasses.

Sowing seed with a mechanical spreader gives the most even, economical distribution. It is good practice to sow half the seed in one direction and the other half in the opposite direction to make sure no spots are missed. Seeding rates will vary depending on the quality used. If the mixture is top-quality, four pounds per 1,000 square feet should be sufficient. Other blends may well require as much as a 10-pound rate to produce turf even of a questionable quality.

Seed need not be covered by straw or mulch. A light dragging with a flexible steel door mat or piece of chain link fence will gently stir the seed into the soil. Avoid heavy raking. A light rolling following the seeding is often used to firm the soil around the seed, particularly on the lighter, sandy soils.

Except for low rainfall states. where regular irrigation is essential, nature will usually supply enough moisture to develop an early spring or a fall planting. Prolonged drought does not harm seed, but germination can be hastened by regular watering. Once the seed has started to sprout, a supply of moisture should be fairly constant. The main thing when trying to hasten the establishment of a lawn is to see that the surface of the soil is kept constantly moist, since most of the seed will be found only in the top eighth-inch of soil.





A REAL ECONOMIZER

Here's a round type window well that features sturdy, streamline corrugated 16 gauge steel construction, full commercial weight bright galvanized coating, and a sturdy reinforcing safety bead for strength across the top.

Its cost is low, yet it offers plenty of lasting quality.
ASK for USF Standard Window Wells.

FOR YOUR BEST JOBS

USF's top quality Window Well is the *Custom* grade, available in both the straight or round type in a full range of sizes. They offer an extra bright, full 2 oz. galvanize coating, super-sturdy extra-deep corrugations on 16 gauge copper steel, and are reinforced with a full-round safety bead across the top.

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These rugged squares of metal with a hard-baked finish possess rigid structural stability. They will not warp, chip, or craze. They resist heat, ordinary household chemicals, and abrasive action of repeated washings.



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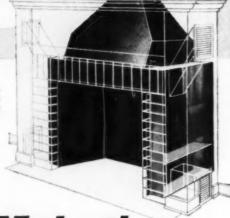
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An all-steel, ready-built unit that fits inside any type mantel, in ald or new fireplaces. Includes damper, dawndraft shelf, smake dame, firebax, and heat-boosting "Radiant Blades."





Majestic CIRCULATOR FIREPLACES

A fireplace properly designed for service and enjoyment puts extra value in your houses! And that's what you're sure to get when you

build a fireplace around a Majestic Circulator! It does a real heating job . . . always works right! Actually serves as secondary heating plant, or even primary heat source in certain areas and dwellings! Simple installation saves you labor and materials . . . eliminates guesswork! Any mantel or design of any height can be built around the unit to harmonize with any architecture.

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ne Majestic Co., Inc.

300-B ERIE STREET

HUNTINGTON, IND.



The summer cooling test house in Champaign. Ill., has five rooms, one bathroom, attached garage, basement. Exterior is cedar shingles over 20-pound building paper and wood shiplap sheathing nailed to 2x4 studs. Sidewalls are insulated, so is ceiling. Roof design follows solar overhang principle. 180 thermocouples installed at various points recorded a complete indoor temperature pattern

the COST of SUMMER COOLING

The National Warm Air Heating and Air Conditioning Association has announced results of a summer (1952) of testing the cooling of an average small house of 1,000 square feet, equipped with all-year air conditioning based on a forced warm system. The testing was done in conjunction with the University of Illinois.

The house was *not* occupied during the test period. All doors and windows were closed, while the Venetian blinds at the windows were left fully raised.

It was discovered that the total cost of operation during a 30-day period, with many days of extremely warm weather, was \$32.33. Of this amount, \$15.36 was the power cost and \$16.52 was the cost of water. During the 30-day period, the system consumed 639 kilowatt hours of electricity. A total of 37.126 gallons or 4,455 cubic feet of water were used.

No cooling tower was used with the system. Had a tower been used, the association figures that the total cost of operating the system for the test period would have been about \$18 or \$20 instead of the actual cost of \$32.38.

Size of Unit

Equipment used was a standard combination heating and cooling unit typical of models available on the market today. Heating and cool-

(Continued on page 214)

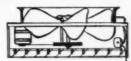
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WALL CABINETS Sizes: 15", 18", 21', 24", 27", 30", 36"



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- 4. Ten different sizes and types of sink cabinets.
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Roselle, N. J.

HU-104



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Reom	1938,	315	Fourth	Ave.,	New	York	10,	N.	Υ.

Gentlemen:

Please send me my free copy of "Figure Fact Efficiency For Contractors and Builders", (AD 535, Rev. 1).

NAME_____TITLE____

COMPANY

CITY_____ZONE___STATE____



SUMMER COOLING

(Continued from page 212)

ing equipment was contained in separate sections of the unit. The test indicated that for the "average" small house in "most" areas, a cooling unit of two or three ton capacity will handle the summer cooling problem.

This standard doesn't apply, however, to houses in the South or Southwest, where long spells of hot, humid weather will require units of greater capacity. Further, the duct systems for southern houses should be designed with a primary objective of providing sufficient capacity to handle the summer cooling need, rather than being designed simply as ducts to carry heating loads.

Time Lag Influences Cooling Load

Meters were installed in walls and ceiling of the test house to measure the heat flow into the building. The maximum cooling load of a structure does not occur at the same time that the outdoor temperatures and the sun effect on the outside surfaces of the building reach their maximum value.

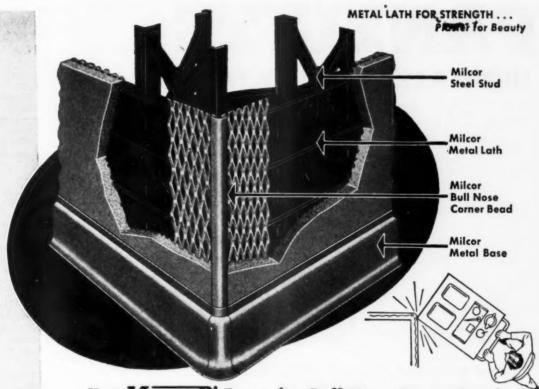
It was discovered that the time lag of heat flow through the walls was from two to three hours instead of the five hours used in commercial cooling load calculations.

The time lag will of course vary with type of wall construction. The association concludes, however, that in general the five hour time interval is unrealistic when applied to domestic installations.



"IT'S AN OLD BARN WE HAD REMODELED."

AMERICAN BUILDER



Use MILCOR' Expansion Bull Nose Corner Bead

... for lasting corner protection in hospitals, schools, and institutions

Wherever a job requires round corners
— extra strong — to meet traffic conditions in rooms and corridors, Milcor Bull
Nose Corner Bead is the bead to install.

Here's how Milcor Bull Nose Corner Bead gives straight line beauty to broad, rounded corners:

Integral expansion wing provides an effective plaster bond right up to the nose of the bead. Broad face available in 3/4" radius, 1" face; 11/2" radius, 2" face; 2" radius, 21/4" face.

Strong, rigid design — made from TiCo galvanized steel — gives you straight-line beauty.

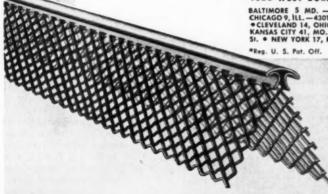
Milcor offers you the widest selection of corner beads, from industry's most complete line of metal lath and accessories. For details, write today for your copy of our new Catalog No. 252.

<NLAND> STEEL PRODUCTS COMPANY

4025 WEST 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 Grave Ave. → CLEVELAND 14, OHIO — 1541 E. 38th St. → DETROIT 2, MICH. —690 Amsterdam Ave. → KANSAS CITY 41, MO. — P. O. Box 918 ← 105 ANGELES 58, CALIF. — 4807 E. 49th St. ◆ NEW YORK 17, N. Y.—230 Park Ave. ◆ ST. LOUIS 10, MO.—4215 Clayton Ave.

M-12



No. 10 Bull Nose Corner Bead, shown, is made of galvanized sheet steel and has expansion wings integral with the nose of the bead. No. 10 is just one in a complete line of Milcor Corner Bead for every construction condition—and designed for application with other items in the broad line of Milcor Metal Lath and accessories.

PANELYTE

HIGH-PRESSURE LAMINATE

FOR SINK-TOPS
AND WALLS
in kitchens and
bathrooms

Easiest to install
Quality Plastic Surface





Now you can install PANELYTE On - the - Job

PANELYTE

is also your answer to Shop Fabricated Jobs

REGULAR Panelyte (1/16" thick) for bonding to plywood, is ideal for jobs fabricated in the shop. This durable, beautiful plastic for table-tops and work-surfaces has proved its dependability in homes, hotels, stores, restaurants and institutions for many years. It is the same fine laminate as 1/10" Panelyte, except in thickness. Complete range of colors and effects.

NO COSTLY DELAYS. Your men can install the new, heavier Panelyte—or local sub-contractors can easily handle the job. Composed of laminated plastic throughout its 1/10" thickness, this new form of Panelyte is beautiful and durable!

Installation is easy and quick, using metal moldings and ordinary hand tools. Large sizes, to 4' x 10', for fewer joints and more one-piece surfaces. And you'll have mighty attractive results to show—beautiful surfaces that will last a lifetime.

Panelyte in both thicknesses is available through dealers. Ask your dealer today or send coupon for complete information.

PANELYTE® The Decorative Surface

Panelyte is made by St. Regis Paper Company famous for paper and plastic products of highest quality.

Panelyte Divi 5T. REGIS 230 Park A	PA	N		_	_	-	-	_	-	-1		1	7	,	, 1		-5
Please send Panelyte dea tion about Pa	le	r	a	ne	d												
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Firm Name						0	•				•						
Address																	

NEWS _

(Continued from page 29)

at the meeting included Edward G. Gavin, editor, American Builder, H. R. Northup, executive vice president, NRLDA, Washington, D.C.; Gerry F. Hoppe, Insulite sales promotion manager, Minneapolis; L. C. Hart, vice president for relationships, Johns-Manville Corp., New York; and Clayton Rand, publisher and editor of Gulfport Press, Gulfport, Miss.

MICHIGAN

The 64th Convention of the Michigan Retail Lumber Dealers Association in the Civic Auditorium in Grand Rapids was attended by 2.055 registrants and 600 visitors. There were 123 exhibit booths. Business sessions covered operative difficulties which may arise during the coming year.

Program speakers included Everett

Program speakers included Everett B. Wilson, director of public relations for NRLDA, Washington, D.C.; Gates Ferguson, director of advertising, Celotex Corp., Chicago; Jos. L. Wood, assistant treasurer of Johns-Manville Corp., New York, and Don Ross, merchandising manager of Successful Farming magazine.

NEW YORK

Successful future of the retail lumber industry will depend on the advertising, merchandising and creative selling procedures adopted by individual dealers, according to reports featuring the 61st annual convention and exhibit of the Middle Atlantic Lumbermen's Association, held last February in Atlantic City, N. J.

A strong plea for carefully planned and steady advertising was voiced by Arthur Clifford, vice president of the A. W. Burritt Co., Bridgeport, Conn. Clifford, recently elected second vice president of the Northeastern Retail Lumbermen's Association, pointed out that the real competitors are not other lumber yards but the travel bureaus, department stores, television, automobiles, etc.—all after that consumer dollar.

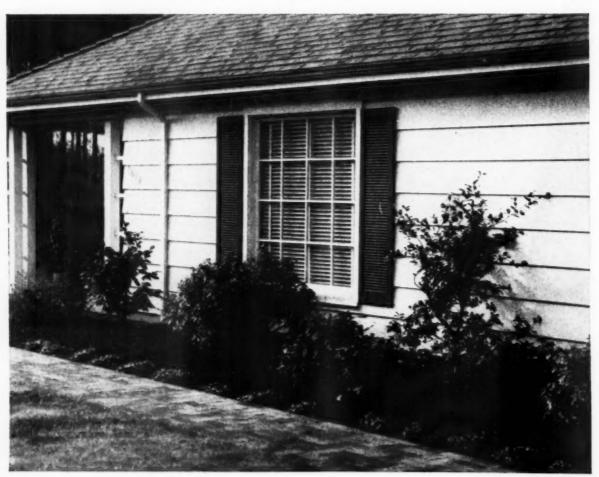
A workshop panel session moderated by J. Ewing Kennedy, director of personnel training for the Pennsylvania Railroad, was a daily feature of the three-day convention.

G. Hunter Bower of Frederick, Md., recently re-elected president of the association, presented its annual civic achievement award, a sterling silver bowl, to Russell Yale Mohr of the Mohr Lumber Co., Philadelphia, and its silver plaque award to Arthur A. Hood, editor of the "American Lumberman."





THIS BRAND NAME ON LUMBER ALSO BRINGS YOU...





Bevel and Bungalow Sidings

IN A VARIETY OF GRADES AND SPECIES

Known for generations as a manufacturer of quality lumber products, Weyerhaeuser has developed the production of bevel and bungalow sidings to a fine art.

Weyerhaeuser Bevel and Bungalow Sidings are among the building industry's most popular exterior wall coverings. Their bevel design provides an overlapping, water-shedding pattern which increases their value as an exposure material. Offered in a variety of durable Western Softwoods, Weyerhaeuser 4-Square Bevel and Bungalow Sidings are proved, weather-resistant products.

In addition to their high functional value, bevel and bungalow sidings are easily adaptable to many styles of architectural design. They highlight the structural mass with form, texture and color. The deep shadow lines amplify the width, which is the most striking characteristic of rambler houses. The decorative schemes of homes built with Weyerhaeuser 4-Square Bevel and Bungalow Sidings are easily altered with each new paint job.

You can satisfy the needs of your customers with Weyerhaeuser 4-Square Bevel and Bungalow Sidings which are manufactured in a variety of grades and sizes from Western Red Cedar, West Coast Hemlock, Idaho White Pine, Ponderosa Pine and Sitka Spruce.

Ask your Weyerhaeuser 4-Square Lumber Dealer to give you full details of these popular exterior wall coverings ... or write for descriptive literature.



Weyerhaeuser Sales Company

MR. BUILDER... you too

The International

BUN

MORE BUILDERS PREFER

International's ..



2 BEDROOM with CAR PORT



3 BEDROOM with CAR PORT Low Pitch Roof



2 FAMILY DUPLEX

FACTORY ASSEMBLED CONVENTIONAL CONSTRUCTION

Because it -

- Returns Greater Profit
- Assures Rapid Turnover
- Stabilizes Costs
- Improves Financing
- Speeds Construction

THE INTERNATIONAL HOME was designed with both the builder and home owner in mind. The use of latest engineering techniques, and on-site construction methods, has produced one of the fastest built and fastest selling homes in the residential sales market.

THE INTERNATIONAL HOME PACKAGE, truck delivered to your foundation, includes:

- Exterior Wall Panels, with all windows, insulation board, siding, door frames, painted.
- Gable Ends, sided, prime painted; windows and vents installed.
- Roof Panels, with rafters, sheathing, assembled. Shingles and paper supplied.
- 4. Partitions, completely assembled.
- Interior: Doors completely finished and assembled into finished jambs. All trim finished in syntho blonde enamel; Youngstown Kitchens by Mullins; assembled, disappearing stairway; pre-cut utility room closet and shelving.

"Everything, including the Kitchen Sink"

18 MODELS 2 and 3 BEDROOMS

CAN BUILD THE HOME that sells itself!

Home



EVERY FEATURE Designed FOR SALES APPEAL

Kitchen Exhaust Fan; Insulated Ceilings, Outside Walls and Floors; Storm Doors for front and rear doors; Garbage Disposal; Westinghouse Washer and Dryer; New Gas Furnace with counterflow heat, controlled by thermostat; large, spacious closets and storage space.

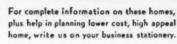
Asphalt Tile Floors, easy to clean; Hollywood Flush Doors, easy to dust; Youngstown Kitchens with new Lazy Daisy Corner Base; Beautifully Painted Interior Walls and Ceilings; Expansible Attic, can add 2 bedrooms; All Aluminum Windows, fully weatherstripped; Thermopane Picture Window.

INTERNATIONAL HOMES INCLUDE THESE NATIONALLY ADVERTISED PRODUCTS

Alwintite Aluminum Windows • Libbey-Owens-Ford Thermopane
Celotex Roofing, Insulating and Gypsum Board
Berger Inversaire Furnace • Waste King Garbage Disposer
Certainteed Roofing; Gypsum Board
Mullins Youngstown Kitchens • Miami-Carey Ventilating Fans
Westinghouse Washers and Dryers
Philip Carey Roofing • Owens-Corning Insulation









Full Expansible Attic: 5 TO 7 ROOMS OVERNIGHT



PERFECT COMFORT HEATING WITH YORK-HEAT OIL OR GAS BOILER UNITS

York-Heat's complete line of oil and gasfired boiler units for radiant, hot water or steam heating cover a complete range of types—table-top, enclosed, and exposed burner—and a full range of sizes from 102,000 B.t.u. upwards. All approved by Good Housekeeping Institute. ASME inspected. Fully guaranteed. York-Heat is priced to fit your building bud-

PERFECT HEAT DISTRIBUTION WITH . . .



York Aqua-Ray Base Heat — a new type of baseboard radiation—is engineer-rated and designed for faster, quicker installation. Saving up to 25% on radiation cost. Improved heating efficiency.

THE LEVITT STORY

This heating equipment is produced by York-Shipley, Inc., pioneer specialists in automatic heating and the builders of the heating equipment used by Levitt & Sons in 21,666 out of 27,500 homes. Send the coupon today for complete York-Heat facts.

Please today.	send	data	on	York-Heat	boilers
Name .					

how to give cedar siding a NEW LOOK

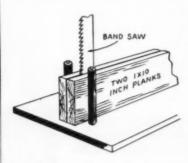


The reverse board-and-batt effect of this rough cedar siding is obtained by milling the boards as shown below.

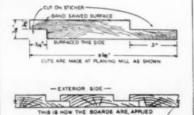
The wide cuts allow the boards to be fastened with one nail at the center of the length, then plumbing with the level. This process is about twice as fast as application of board and batt or other types of siding.

The boards can also be given a pleasing texture on the exterior surface by putting them through a band

This house is the work of C. K. Dart, a builder in Eugene, Oregon.



Two 1x10-inch cedar planks are placed together and run through the band saw to give pleasant texture to the exposed surface of the siding



DON'T GAMBLE WITH LESS THAN TOP PERFORMANCE TO VENTILATE THE MODERN KITCHEN



Only a Trade-Wind Clipper gives you the powerful, quiet suction through dual centrifugal blower wheels to adequately ventilate such kitchens as the photo shows.

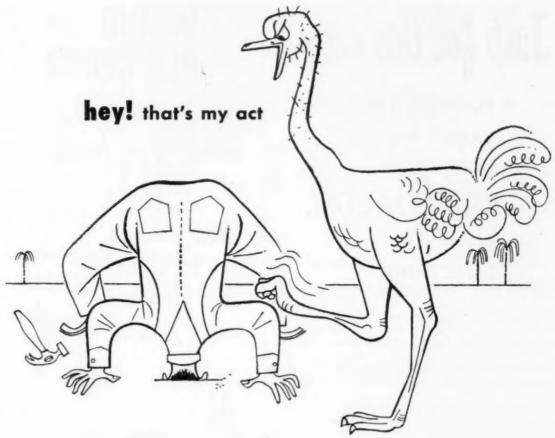
Here is Trade-Wind Ceiling Model 2501 specially installed in the brass lined center canopy. The unit is equipped with 2-speed control-low speed for normal cooking and high speed to develop the full 425 CFM for heavy duty.

Trade-Wind also makes Model 3501 for installation in a cabinet or soffit directly over the stove where the newest designs call for this type of installation,

Write for complete information



5705 South Main Street Los Angeles 37, California



read the story of

"The builder who put his head in the sand"

The poor ostrich takes quite a kidding because he buries his head in the sand. As a matter of fact, he's not so dumb . . . he's looking for things that may be hidden under the surface.

We know a builder who took a hint from the long-legged bird and discovered hidden costs under the surface covering he had been using for roofs. This particular builder had drifted into the habit of using "cheap" covering material, but had failed to notice that, in order to use it, he was paying dearly for extra sheathing lumber to support the cheap roofing.

When he looked at his facts and figures, he found that the solid roof decking required for non-rigid materials had been costing him more than he had "saved" by using inferior shingles. Here are the facts he uncovered by digging deep:

Genuine CERTIGRADE cedar shingles are so strong that they can be applied on **spaced** roof sheathing—you simply use about half as much sheathing lumber in building the roof deck. Naturally, it takes only about half as much labor cost to apply the sheathing.

Well, when he figured up these savings that just come naturally with CERTIGRADE cedar shingles, he found that the so-called **economy** of cheap roof covering material is a false economy. Now he knows that he can give his home buyers the extra quality, extra long life of genu-

ine cedar shingle roofs . . . at little or no extra cost.

More and more builders are alert for quality in these days of increasing competition. And they are finding that cedar shingles, applied on spaced roof sheathing, provide muchneeded sales quality at sensible cost.

No wonder so many builders are "going back" to those tried and true CERTIGRADE red cedar shingles!

If you would like to check the comparative costs of cedar shingles on spaced sheathing vs. competitive roofing on solid sheathing, in your community, write us for a free cost estimating form. Red Cedar Shingle Bureau, 5510 White Building Seattle 1, Washington or 425 Howe Street, Vancouver, B. C.

Just for the record

 ROOFER'S TIN, VALLEY TIN and TERNE METAL are all the SAME THING

That's right-whether you work with Roofer's Tin, Valley Tin or Terne Metal, remember-they're all one and the same sheet steel coated with tin-lead alloy. No matter what the clime or where the locale, you'll find Terne Metal is being used in hundreds of building applications-from roofing and weathersealing to termite shields and cold air return ducts.

Follansbee Terne Metal has the tensile strength of steel plus the extremely high corrosion resistance of lead. It has been produced by Follansbee for more than 60 years. Chances are you've used it time and again wherever you've specified "tin."

Smart builders everywhere are checking these advantages of trouble-free Follansbee Terne Metal:

- · Easy to apply
- · Tough, durable, fireproof
- Unlimited design possibilities
- Variety of color harmony
- Elimination of cross seams

And unlike other metals which are sometimes used for roofing, Follansbee Terne Metal expands and contracts so little with changes in temperature that no allowance need be made for this.

Don't forget-whether the job calls for roofer's tin, valley tin, or Terne Metal-you are dealing with the same product in every case. Your Follansbee distributor is prepared as always to supply you with this high quality Terne Metal for all your jobs requiring metal protection.

FOLLANSBEE STEEL CORPORATION

GENERAL OFFICES, PITTSBURGH 30, PA.

COLD ROLLED STRIP

SEAMLESS TERNE ROLL ROOFING

POLISHED BLUE SHEETS AND COILS



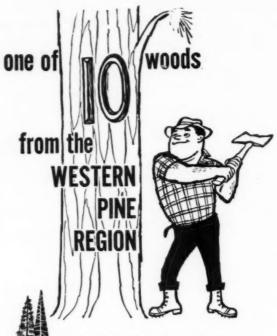
Sales Offices—Chicago, Cleveland, Detroit, Indianapolis, Kansas City, Los Angeles, Milwaukee, Nashville, New York, Philadelphia, Rochester, San Francisco, Seattle; Toronto and Montreal, Canada. Mills—Follansbee, W.Va.

FOLLANSBEE METAL WAREHOUSES

rgh, Pa. Rochester, N.Y.

Fairfield, Cons

INLAND RED CEDAR



From shingles to sheathing, this strong, decay-resistant, even-textured, aromatic wood is advantageously used wherever durability and non-warping are important. Entirely resin-free, it takes and holds glue, paint and stains. One of the finest wood insulators.

This is but one of ten fine softwoods from member mills of the Western Pine Association. All are manufactured, seasoned and graded to exacting Association standards. Lumber dealers, builders, architects and wood users have found them. dependable and best for many construction uses.



THESE ARE THE WESTERN PINES

IDAHO WHITE PINE PONDEROSA PINE . SUGAR PINE

THESE ARE THE ASSOCIATED WOODS

LARCH . DOUGLAS FIR WHITE FIR . ENGELMANN SPRUCE INCENSE CEDAR . RED CEDAR LODGEPOLE PINE



Write for free illustrated Facts Folder about Red Cedar. Address: Western Pine Association, Yeon Building, Portland 4, Oregon.



8' x 7' • 9' x 7' Hinged at 16 points, with 4 corner supports, it floats on 20 points of strength!

America's Great Name in QUALITY DOORS...

The STRONGEST garage door built today . . . The "OVERHEAD DOOR"

Easy operation and attractive design are the major selling factors of a garage door.

The "OVERHEAD DOOR" — strongly built, perfectly balanced and expertly installed for easy operation — is beautiful inside and out. Hinges and fixtures are embossed and bright zinc-coated. Specify this quality door



For Residential, Commercial and Industrial Use

OVERHEAD DOOR CORPORATION Hartford City, Indiana

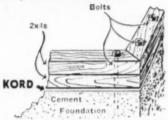
Manufacturing Divisions

Hillside, N. J. Cortland, N. Y. Portland, Ore. Nashua, N. H. Lewistown, Pa. Glendale, Cal. Dallas, Tex. Oklahoma City, Okla.

by Sterling At the same time labor costs and waste reduced.



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



The sketch shows one of the uses of KORD by one of the nations leading builders, the LEVIT-TOWN HOMES, to weatherproof the sills.



The nation's most complete caulking and sealing service.



KORD is produced by the makers of time-test-ANCHITICIUZAL ed Sterling glazing and caulking compounds.

See Sweet's file for send for full in-

STERLING PAINT 192 Commercial St.

relations program

A program to help architects become more articulate is being put into effect by the American Institute of Architects. Washington, D.C. Glenn Stanton, Oregon architect and president of the AIA announced recently that a contract for a three vear program had been signed with Ketchum, Inc., Pittsburgh public relations firm, to help the organization carry out its program.

The architects say that a better public understanding is necessary of when and how to put architects to work, if they are to do as satisfactory a job in homes and commercial or industrial buildings as they accomplish on institutional structures.

They point out that it is no more expensive to engage architects when a building project is first considered than to solicit their services later on. When an architect takes over a job at its beginning, he can advise on choice of site, and help shape the over-all description of the building he will later design. This extra service can mean tangible savings in time and money.

The public relations program will begin by furnishing information about architects and the services they render. It will put the accent on the architect himself by emphasizing that the best publicity is a job well done, while urging architects to capitalize on their numerous contacts with the public and in the building field.



"I MERELY ASKED HIM IF I COULD MAKE ONE MORE TEENSY-WEENSY ADDITION TO THE PLANS!"

AlA launches public | Put a "Feature" in the Bathroom!



THE NEW TU-VUE MEDICINE CABINET with

Locking "Poison Shelf"

(especially interesting to mothersl

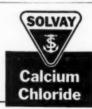
Home buyers go big for this new-idea medicine cabinet . . . it opens poison shelf. Write for picture folder to see how mother and daughter find new conven-"bathroom iences as "bathroom vanity" and full-length

view . . . for the men "close-up" enlarged reflection for shaving . . . better bathroom safety 2ways for children. Completely counterbalanced by spring tape for easy operation. New, unique, extra useful . . . and the greatest step forward in bathroom medicine cabinets in years! Priced for all homes. Folder gives installation data. Get. it today!

TU-VUE MEDICINE CABINET CO.

Division of Ornas & LaBarre

Centerline, Michigan 28697 Mound Road



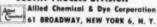
Clean. Odorless Way to

Earth. Gravel and other Unpaved Surfaces

SOLVAY CALCIUM CHLORIDE is the easy, low-cost effective way to eliminate dust. Anyone can use it without any special tools or equipment. And it's safe-clean, odorless, colorless. Start now to end your dust problem-order SOLVAY CALCIUM CHLORIDE today.

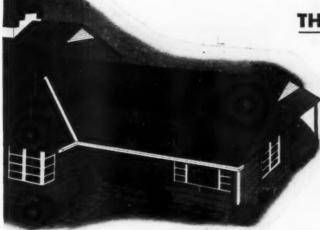
Dealers! If you are not now handling SOLVAY CAL-CIUM CHLORIDE, write for details and complete advertising and promotion material

SOLVAY PROCESS DIVISION



THAT GLEAM IN THE

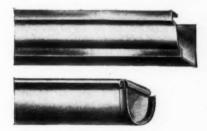
...it's the gleam of Aluminum! Homebuyers look for it because they know it means modern beauty and rustproof permanence at the lowest cost. These Reynolds Lifetime Aluminum Building Products help you sell on sight. They keep customers sold and build further sales by endless satisfaction with no maintenance. See your jobber. Write for literature. Reynolds Metals Company, Building Products Division, Louisville 1, Kentucky.



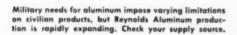
REYNOLDS ALUMINUM RESIDENTIAL WINDOWS. Quality controlled from bauxite to building site, Reynolds Aluminum Windows are outstanding in design and in their high satinized finish. Casement Windows with full 1" x ½" Z-sections, improved hardware... lacquered for protection during construction...protectively packaged two to a carton. Awning Windows with quick, positive closing feature. Double-Hung Windows with precision balances. Write for 20-page catalog.

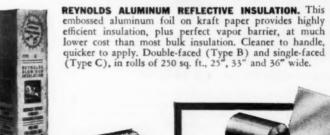






REYNOLDS Lifetime ALUMINUM GUTTERS AND DOWNSPOUTS. Beauty and rustproof permanence at lowest cost. Slipjoint application saves labor. Ogee and Half-Round 5" Residential Gutters, smooth or stipple-embossed finish—also 6" Industrial Half-Round—with downspouts and complete fittings to match.





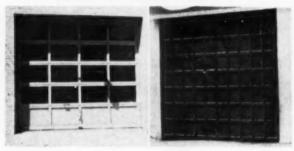
REYNOLDS Lifetime ALUMINUM FLASHING... AND NAILS. Easiest flashing to work with, best looking, and lowest in cost of any rustproof material! In 50' rolls of 14", 20" and 28" widths; flat sheets 28" x 6', 8', 10', 12'; also cartons of 18" x 48" sheets. Remember, aluminum nails are a must with aluminum, best for all exposed nailing. Specify rustproof, non-staining Reynolds Lifetime Aluminum Nails.

REYNOLDS ALUMINUM

SEE "MISTER PEEPERS," starring Wally Cox, Sundays, NBC Television Network. HEAR "Fibber McGee and Molly," Tuesdays, NBC Radio Network.

RAYNOR

wood sectional overhead doors make all of your door installations . . .

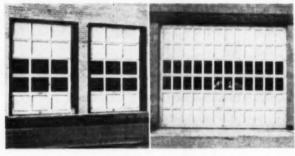


attractive

Raynor's complete line offers standard panel construction for general use or flush panel construction for the modern effect—when individuality is desired, the exclusive carved panel with carved design.

weather proof

Raynor patented universal Graduated Hinge (can be used in any section of the door) combines with a tapered track to provide a perfect weather tite seal on all Raynor doors, eliminating the common practice of using a special set of hinges.



operate with finger-tip control

The same efficient combination of the Raynor universal Graduated Hinge and tapered track equips every Raynor door with finger-tip control by breaking the seal the instant the door is started toward the open position. These quality features found in every residential, commercial and industrial Raynor door are the products of the alert and progressive door building know-how found in the Raynor Engineering Dept.

Co-ordinated construction (woodwork and hardware built complete in the Raynor plant) is combined with top quality material and leading door engineering ability to make the Raynor line the dependable source of a complete line of wood sectional overhead doors you have been looking for!



Consult your telephone directory for the nearest Raynor representative.

Write for free full-color literature on the Carved Raised Panel Door.

RAYNOR MFG. CO., Dixon, III.

Builders at a Complete Line of Wood Sectional Overhead Doors



Demonstration of closet wall on stage of auditorium

interest runs high at builders' session

More than 500 builders, contractors and others allied with the building industry attended the eighth annual short course in residential construction held on the University of Illinois campus, Urbana, Illinois. These men came from 18 states as far west as California, east as Maine, south as Florida and from into Canada on the north to obtain the latest information on construction techniques that applied research has produced over the years. The two-day session was conducted by the Small Homes Council in cooperation with the Division of University Extension.

The Council staff and other technicians covered in detail the results of research over the past year by use of colored slides, movies and visits to experimental projects. These included design and construction of windows, closet walls, narrow frame storm sash, one and one-half story roof trusses, space use and design of demonstration houses and a study of frame construction. The design of the one and one-half story truss was the result of builder's requests during last year's session at the close of a panel discussion on the one story truss. Audience participation seminars took up the use of insulation, basementless house construction and planning and design.

Sponsors of research projects are as follows: Closet Wall Study—Lumber Dealers Research Council; Demonstration House Program—Housing and Home Finance Agency's Division of Housing Research; Design Criteria for Space in Dwellings—HHFA Division of Housing research; Foundation Walls for Concrete Floor Slabs—Levitt and Sons, Inc.; Window Study—Lumber Dealers Research Council: Roof Framing—HHFA Division of Housing Research; Steam and Water Heating Research—Institute of Boiler and Radiator Manufacturers; Warm-Air Heating Research—National Warm Air Heating and Air Conditioning Association.

Use the Barrett **1–2** punch for bigger shingle sales!

1. Ingenious full-color ads sell Barrett Shingles brand new way!



High readership format means more of your prospects than ever will get the Barrett shingle story from these striking eye-catching Barrett ads appearing in Saturday Evening Post starting May 9th. Stereo View-Master shows entire line in full colors! Lets prospect pick for himself!



Sales are much easier to make when your client can see for himself just how his roof will look roofed with any one of Barrett's sturdy, attractive shingles. Be sure to get your View-Master in time.

GREATEST ALL-AROUND PROMOTION PROGRAM IN THE ROOFING INDUSTRY!

Match this kind of backing...if you can! Barrett supplies everything to help you sell more shingles this spring!

National advertising to keep the Barrett story before your customers . . . the Stereo View-Master to help you sell—and look what else:

- · Dramatic full-color counter and window displays.
- · Newspaper mats and electros.
- · Personalized business stationery and forms.
- · Permanent and portable samples.
- · Mailing pieces, post cards, blotters.
- · Outdoor signs for your building and for job use.
- · Good-will novelties and reminders.

And more, too! If you are not tied in with Barrett — ACT NOW! You get greater profits when you handle Barrett — famous for fine building materials for almost a century. Write for full information.

Building your business is the business of -



BARRETT DIVISION

40 RECTOR STREET, NEW YORK 6, N. Y.

205 W. Wacker Drive, Chicago 6, III.

36th St. & Gray's Ferry Ave., Philadelphia 46, Pa. *Reg. U. S. Pat. 0ff. 1327 Erie St., Birmingham 8, Ala. Cabinet Hardware that Sells Homes...



Cabinet Hardware can do more than open doors, it can open a whole new field of cabinet design. It can add "the finishing touch" that makes women say "my what a beautiful kitchen!" It can only be done with unique hardware. Washington is unique.



Ask your dealer or write to: WASHINGTON STEEL PRODUCTS, INC. Dept. AB-5, Tacoma 2, Washington

WASHINGTON LINE

*Took only 2 minutes to fasten angle iron to brick wall



Ramset JOBMASTER MAKES FAST, EASY WORK OF INSTALLING FALSE WALL

Drilling and chipping into brick, to fasten furring strips, was too slow and costly for this contractor. Instead, with his powder-actuated RAMSET JOBMASTER, he drove two Tru-Set Fasteners through angle irons into mortar joints, taking only two minutes to anchor each iron. Furring strips were screwed on, ready for nailing wallboard.

CUT COST AND TIME OF FASTENING INTO STEEL OR CONCRETE

With the super-speed RAMSET JOBMASTER you can easily set 50 or more Tru-Set Fasteners per hour, into steel, concrete, masonry and other suitable materials. Compact, lightweight, one-piece JOB-MASTER has trigger action, spall diverter, angle-fire control and 42-position Roto-Set Safety Shield to assure accuracy for every fastener. Tru-Set Fasteners with the exclusive Red-Tip Pilot, in 56 sizes and 5 types, go straight to the work, for solid, true penetration. Ask your RAMSET dealer for demonstration of time and money savings-and for new booklet Modern Fastening Methods; or, mail the coupon.

Ramset Faste. Ramset Division, Olin Indus	
12113 BEREA ROAD . CLEVELA	IND 11, OHIO
Please show me how to cut co time with RAMSET FASTENING S	
Name	
Name Company Address City	

fabric covered refrigerators enhance kitchen decoration

Builders looking for a new way to get contrast into kitchen decoration can find an answer in the new "Decorator" refrigerator. It is designed for easy coverage of the door to match curtains, drapes, walls or linoleum. The procedure takes just seven minutes, using 134 yards of fabric. The only tools needed are a knife and a pair of scissors. Fabric of any pattern or color can be used.

Courtesy of International Harvester Co.

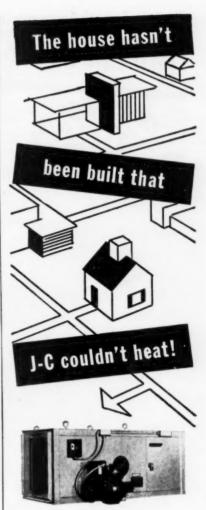


Applying new decorative fabric to refrigerator is simple, speedy operation

Each "Decorator" model refrigerator comes from the factory covered in a Ben Rose designed fabric. There is also an additional piece of fabric of a different design included, to provide a seasonal change, if desired, without requiring alteration in the general decoration of the kitchen.

The first step in applying new fabric is to remove the molding around the edges and on the front of the door, then pull off the existing fabric: next, the 134 yards of fabric is attached to the cellulose adhesive tape around the edge of the door. Excess fabric is trimmed off with scissors. Final step is to replace the molding on the sides and front of the refrigerator and replace the plastic "push plate" on the front.

This versatile unit is designed to meet the trend toward more color in the kitchen by making the refrigerator an integral part of the decorating scheme.



As every builder knows, the Cape Cod cottage and the rambling ranch present very different heating problems. But they have one thing in common ... they both can be heated by JACKSON & CHURCH!

Four, new, small J-C SUSPENSION TYPE warm air units have been designed for low cost installations in attics, under floors, or suspended from ceilings in out-of-the-way locations. Ideal for zone heating.

Horizontal units are available from 80,000 to 1,000,000 Btu output for operation with oil and gas for residential, commercial and institutional buildings.

Floor type models are available in a range of sizes from 50,000 to 3,800,000 Btu output.

JACKSON & CHURCH CO
Saginaw, Michigan



This precision-built MallSaw is but one example of that unbeatable combination of TOP quality and LOW price found in the hundreds of Mall tools for builders. This model is equippe. With 7-inch blade, power-packed motor, automatic telescoping blade guard, heat treated gears, ball and needle bearings, and many other features. Has a cutting capacity of 23%—cuts 2 x 4's at 45°. SEE YOUR MALL DEALER! Write for complete details.

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

Get More Facts NOW!

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tips for top crane performance

The crane operator should always check his footing to be sure it is solid. Time spent in preparing a good footing will pay off in higher speed, stability and safety. Keep the crane level; on soft ground it may be necessary to fill in extra earth under the caterpillar treads on the load side to allow for the crane's settling.

The manufacturer furnishes a table of maximum allowable lifting loads; it is wise not to exceed these stability ratings. The crane should not be operated with a boom angle greater than 78 degrees from the horizontal. If the crane does not have safety "back stops," care should be exercised when handling loads with the boom near 78 degrees to horizontal.

By daily inspection of all ropes, including boom suspension, and replacement of those showing several broken strands, the safety of the crane and crew, as well as its load, is assured.

Make sure loads are well secured before they are lifted; if the "hitcher" is careless in attaching or keeping out from under loads he is endangering his own and other lives.

The crane should not be moved horizontally with the boom at a high angle or while carrying maximum loads. In moving capacity loads beyond the crane's radius, the operator should pick up and swing the load ahead, lower it to the ground, then move around it.

If a load must be moved in soft ground, the operator should remember that the treads will climb better if the crane moves with the load behind it. When traveling with a suspended load, the load should be snubbed to the boom to prevent swaying.

Data courtesy Bucyrus-Eric Co.

5 REASONS WHY LUFKIN "RED END" RULES

GIVE YOU ON-THE-JOB ACCURACY AND DURABILITY



- Triple-locking brass joints are doubleattached to the rule—eliminates end play and maintains accuracy
- 2. Brass strike plates prevent wear
- 3. Only the finest straight-grained hardwood is used in their manufacture
- Durable snow-white enamel finish coated with tough, clear plastic for longest wear
- Bold, easy-to-read figures and graduations are embedded right into the wood

See the display of "Red End" Rules at your hardware dealers. "Red End" Rules are available in a wide range of markings—regular, flat reading, Two-Way, vertical, engineers, extension, plumbers, brick-masons, metric.

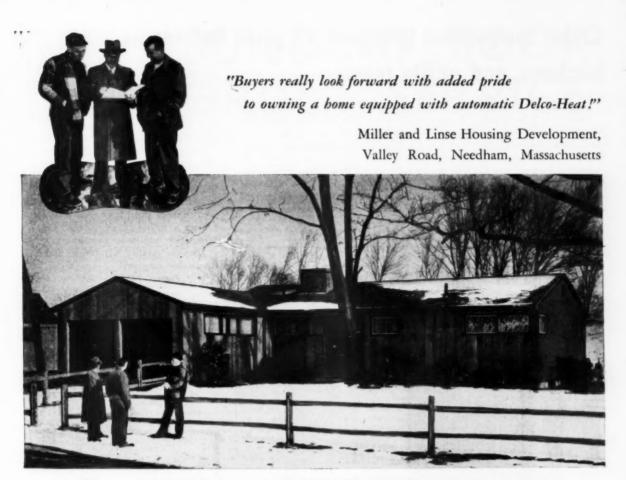
BUY UFKIN

UFKIN TAPES . RULES . PRECISION TOOLS

FROM YOUR HARDWARE DEALER

244

THE LUFKIN RULE CO., Saginaw, Michigan • 132-138 Lafayette St., New York, N.Y.—Barrie, Ontario



General Motors DELCO-HEAT adds extra sales appeal to these Massachusetts homes

MODEL OPC-LD
DELCO-HEAT
CONDITIONAIR

Compact, streamlined, comfort engineered to the space-saving needs of today's homes. This unit especially designed for basement installation. Also available in vertical model for utility room or closet and in counterflow model for perimeter systems. Shipped assembled for easy installation.



Here is another development of 50 homes where Delco-Heat is really helping to stimulate buyer interest and sales. Shown left to right in top picture are Mr. J.W. Linse, Mr. Ralph T. Woodcock of the Needham Oil Co., Delco-Heat Retail Distributor, and Mr. Walfred R. Miller. Mr. William Heidke of Simco Heating Co., installed the Delco-Heat units. The builders go on to say, "We know that the General Motors name behind Delco-Heat is a definite factor in keeping sales humming. It is assurance to the buyer of the true luxury of automatic heat with amazing savings in fuel costs." For every type of home, every type of fuel, see your Delco-Heat Dealer. His name is in the Yellow Pages of your phone book. Or write Delco-Heat, Dept. ABH, Rochester 1, New York. In Canada, Toronto 13, Ontario.

For a good deal-

DEAL WITH DELCO



General Motors Engineering Delco Production Skill



...your keys to Sales Success

Crane competition produces 32 prize bathrooms, kitchens, and utility rooms American Institute

Thirty-two prize-winning designs of bathrooms, kitchens and utility rooms have been selected in a national Architectural Competition sponsored by the Crane Co. The designs feature original yet simple ideas for these three rooms which are nowadays receiving increased

attention from both architects and builders.

The 32 top designs were chosen by a jury made up of: Alan Brockbank of Salt Lake City, 1952 president of the National Association of Home Builders; Glenn Stanton of Portland, Ore., president of the American Institute of Architects; George N. Dahl, Dallas, Texas, architect; Henry Dreyfuss, South Pasadena, Calif., industrial designer; and Royal Barry Wills, Boston, Mass., architect.

First place winners in each of the competition's four divisions were awarded prizes of \$3,000 each; the four second place winners each received \$1,500, and the four entrants who finished third each won \$750. Entries were judged on the basis of originality of idea, practicability of design, quality of design and reasonable economy.

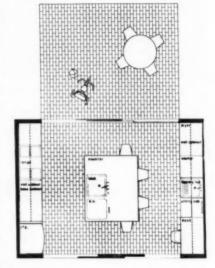
(Continued on page 238)





reliably GRADE-MARKED proudly TRADE-MARKED

REDWOOD





The dealer who features CRA Redwood has no worries about dissatisfied customers. For grade-marked, trade-marked, Certified Dry CRA Redwood is uniformly graded, milled and seasoned to assure top quality and dependable performance on the job. That's why far-sighted dealers everywhere feature CRA Redwood—the dependable Redwood processed by the reputable member firms of the

CALIFORNIA REDWOOD ASSOCIATION 576 SACRAMENTO ST., SAN FRANCISCO 11

Eureka Redwood Lumber Co • Hammond Lumber Co • Holmes Eureka Lumber Co • Northern Redwood Lumber Co Pacific Lumber Co • Rockport Redwood Co • Simpson Logging Co • Union Lumber Co • Warm Springs Redwood Co Willits Redwood Products Co • Wolf Creek Timber Co, Inc • Arcata Redwood Co • Coastal Plywood & Timber Co

Richard C. Brigham's first prize-winning design of a kitchen for a home of any size. The judges liked it because it is "simple, direct, compact, practical, and does not overlook child-play supervision." The one criticism was for lack of detail on the problem of venting the sink in the kitchen's central island. Brigham is a Boston architect, educated at Harvard and Cornell.



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 THE BUILDING ESTIMATOR'S REFERENCE BOOK and Vest Pocket Estimator (not sold separately). By Frank R. Walker. Contains latest estimating and cost data on everything that goes into house construction. Most complete compilation of estimating and cost data available. \$12.00.

estimating and cost data available. \$12.00.

2. SIMPLIFIED CARPENTRY ESTIMATING. By J. W. Wilson and Clell M. Rogers. Everything needed to take-off a bill of materials from set of plans and specifications for a frame house—with many helpful quick-reference tables and shortcut methods that simplify the work. \$3.75.

 CONTRACTOR'S MATERIAL LIST. A 10-column take-off form for complete listing of materials and labor costs. \$1.00.
 SPECIFICATIONS. Full set of detailed house specifications

 SPECIFICATIONS. Full set of detailed house specifications (and item index), with spaces for inserting the pertinent description data. \$.50.

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- HOUSE CONSTRUCTION DETAILS. Compiled by Nelson L. Burbank. Exact working guide on every detail of house construction from foundation to finish. Tells dimensions. materials. processes, step-by-step working methods. 54.95.
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- for quick reference. Fully illustrated. \$4.50.

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 Complete house carpentry course in two volumes. Outstanding years.
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 PAINTING AND DECORATING CRAFTSMAN'S MANUAL. Sponsored by the Painting and Decorating Contractors of America. \$2.00.

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the plumbing system, to fulfill requirements indicated in blueprints and specifications, explained and illustrated, New 3rd edition, \$3.95.

BRICKWORK AND MASONRY

- THE ART OF BRICKLAYING. By J. Edgar Ray. Basic bricklaying job instruction, many illustrations, glossary, special scaffolding and cement block chapters. \$4.00.
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- WESTINGHOUSE HOME WIRING HANDBOOK. By A. Carl Bredahl. A guide for planning the wiring of moderateprice homes, with emphasis on safety, effectiveness and efficiency, 51,00.

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- ARCHITECTURAL DRAWING FOR THE BUILDING TRADES.
 By J. E. Kenney and John P. McGrail. A practical book of drawing instruction for builders and contractors as well as for students and draftsmen. Excellent show-how illustrations. 54 00.
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23. MODERN METHODS OF HOME HEATING. Standard heating systems illustrated with 17 floor plans showing heating outlets. 40 photos of equipment and installations. 25 boiler and piping connection diagrams. and 11 heat loss calculating tables. \$0.50. Your copy sent FREE it your Order totals \$5.00 or more. Use coupon below—mail today!

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You ought to see how things are buzzing in our Bermico® plant these days.

We're happy there's such a demand for Bermico...that's why we're doing everything possible to make as much Bermico as we can—without sacrificing quality.

Bermico—the cellulose, pitch-impregnated pipe for outdoor, underground, non-pressure use—is root-proof, corrosion-proof, light in weight, easy to handle and assemble, and built to last a lifetime.

We are grateful for your patience, and are working hard to give you as much Bermico as you want—as quickly as you want it.

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SOLKA & CELLATE PULPS - SOLKA-FLOC - NIBROC PAPERS - NIBROC TOWELS - NIBROC TOILET TISSUE - NIBROC KOWTOWLS - BERMICO SEWER PIPE, CONDUIT & CORES - ONCO INSOLES - CHEMICALS

There's a NEW HEAVY DUTY FULLY AUTOMATIC, METERING PUMP

Model 53

Johnson Burner

It's built with an amazing new Metering Pump which produces the finest performance ever achieved on "cold starts" and "variable viscosity" oils . . . plus several other new and improved features which make it exceptionally economical, dependable, and easy to service. Available in seven sizes — from 25 H.P. to 400 H.P. For full description of Model 53 see your nearest Johnson Dealer or write to us direct.

... Johnson Oil Burners..

940 Arlington Ave., Oakland 8, Calif. Church Road, Bridgeport, Pennsylvania



IT'S DIFFERENT!



Need scaffolding?

Get the line designed for Building and Plastering Contractors—



It's sturdy, sensible scaffolding made by experts to outlast hundreds of jobs and sell at down-to-earth prices. Consists of hardware only. Lumber not furnished.



See your dealer!

Write for FREE Bulletin SS-AM to manufacturer nearer you.



IT'S NEW!



SUPERIOR SCAFFOLDING



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NON



"And they said cheap roofing saves money!"

This is common sense

CHEAP ROOFING MATERIAL forces the builder to use twice as much sheathing lumber and twice as much labor applying sheathing. This fellow could have had a genuine CERTIGRADE cedar shingle roof, on spaced sheathing, for less cost!

This proves it

CERTIGRADE cedar shingles, because of their great strength and rigidity, can be applied on spaced rather than solid sheathing. You can count on saving about half the sheathing materials cost, and much of the cost of sheathing application, when you use cedar shingles. Let us send you a free estimating form so that you can accurately check the comparative cost of roof construction including sheathing. Your own check,

in your own area, will prove that cedar shingle roofs are your best buy. Write today, ask for "Roof Cost Estimating Form."



5510 White Building, Seattle 1, Wash. 425 Howe Street, Vancouver, B. C.



To <u>Lift Up Materials</u> At Lower Cost...Get

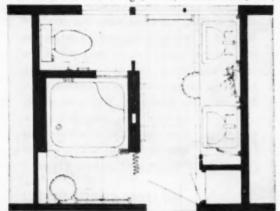


Crane Competition

(Continued from page 234)

The competition was divided into four divisions: (1) bathrooms for homes costing up to \$25,000; (2) bathrooms for homes costing more than \$25,000; (3) kitchens for homes in any price range; (4) utility rooms for homes in any price range. First prize winners in each of these groups respectively were:

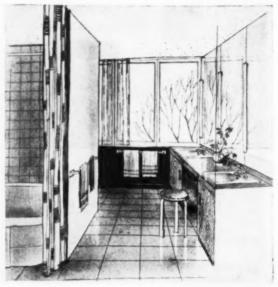
J. A. Curtiss, Scarborough, N. Y.; Charles West Jones.



First prize-winning design of a bathroom for a house costing up to \$25,000 was this one by J. A. Curtiss, an architectural student at the Massachusetts Institute of Technology. The judges comments were: "Compact, yet uncrowded, the plan gives a high degree of privacy and yet permits the simultaneous use of all four fixtures. In our opinion the best and most practical solution for a house with one bath."

Jr., Glendale, Calif.; Richard C. Brigham, Cambridge, Mass.; Donald H. Panushka, Birmingham, Mich.

Second and third place winners were: A. M. Richardson, University of Illinois, Champaign; John J. Kewell and Eugene Kinn Choy, Los Angeles; Joseph R. Fogliani, Seattle; James Henneberg, University of Illinois, Chicago; Bernard H. Bradley, LaGrange, Ill.; John Ridley, Seattle, Wash.; Dick Raggi, Chicago; Arthur A. Gorrell, Jr., Carlsbad, N. Mex.



What's the most wanted fuel in home heating?...GAS

What's the most **Economical**, most **Efficient** way to burn gas?

The Patented Roberts-Gordon Spreader Flame Principle!

Is there a complete line of ROBERTS-GORDON Home Heating Equipment for every type of system, for every size house?

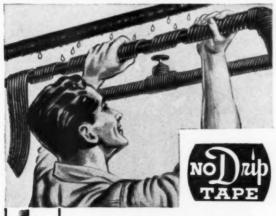
Write us for the name of your Factory Representative



Dept. AB

Manufacturers of Gas Heating Equipment For Over a Quarter of a Century BUFFALO 6, N.Y.

ROBERTS-GORDON



STOPS DRIP

Sweating and condensation drip from cold water pipes is a menace—damages merchandise—rusts pipes and costly fittings—makes floors slippery and danacrous.

NoDrip Tape forms a tight, moisture-proof jacket around pipes and joints. Turns idle space into dry room for work, play, storage, etc. App!y with your hands—no tools, clips or adhesives needed.

Roll covers about 10 feet of $\frac{1}{2}$ " i.d. iron pipe or 13 feet of $\frac{1}{2}$ " o.d. copper tubing.

Get at Hardware, Plumbing, Dept. Stores, Mill Supply and Refrigeration Supply Jobbers. Write for Circular

J. W. MORTELL CO. Technical Coatings since 1895 505 Burch St., Kankakee, III.



- Lowest cost—top quality
- Fits 4-12 through 12-12 pitch
- Exclusive self-framing design: Installs quickly behind
 - facia Assures no-sag rigidity
- Large free area at every pitch
- Aluminum only—in 3 sizes up to 54" base
- Adjustable Aluminum Flashing and screen with each louver



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ASK YOUR DEALER for information on the COM-PLETE LESLIE LOUVER Line of Roof, Cornice and Foundation Vents, Wall and Adjustable Louvers TODAY. Write for 1953 Catalog.

LESLIE WELDING CO.
2935 W. Carroll Ave., Chicago, Ill.

UNION

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VULCAN RADI-VECTOR*

Makes a Well-Built Home . . . BETTER!



ALL the room is "living room" in homes heated by Vulcan Radi-Vector.



Write Today for Catalog No. 53B

BETTER . . . because Vulcan Radiation improve the appearance of a well-built home ... shows the smartness of newly styled, attractive covers, designed to harmonize with any decarative scheme. The "beauty" of Vulcan covers offer a builder the added benefit of superior SALES APPEAL.

BETTER . . . because Vulcan radiation is ideal for use under large picture windows . . . providing maximum comfort. Vulcan heat is even heat from floor to ceiling. No "cold spots". Semi-recessed or non-recessed, it takes up little space; is economical, requires no maintenance, engineered for life-long service.

BETTER . . . because Vulcan's easy-to-fit accessories . . . end enclosures, front covers, corner and joining pieces are made right, to fit right and look right. Install Vulcan baseboard radiation ...it makes a well-built home BETTER!

VULCAN Costs No More Than Ordinary Heating!

*Trade-mark Reg.

The VULCAN RADIATOR COMPANY

Ones Twenty-sense Vense A Leader in Fin-Tube Radiation



21 FRANCIS AVENUE HARTFORD 6. CONNECTICUT

NEWS_

Massachusettes Builders Kill "Sabotage" Bill

Massachusetts home builder associations can take a bow for their part in killing a crack-pot bill which, if enacted, could have put many builders out of business.

The state legislature, according to the Master Home Builders Association of Worcester, was considering a bill to give a town or municipal government power to stop a contractor from building for a period of not more than a year if it decreed such work was detrimental to the financial welfare of the area.

The hearing room was crowded with builders, according to the Worcester association, "and it appeared that the bill had very little backing. In other words, it was a crack-pot bill . . . but we still have to be on the lookout."

"Welcome Neighbor"

"Welcome Neighbor," a booklet on the care and maintenance of a new home has been compiled by the Home Builders Association of Greater St. Louis. The builder members are making it standard practice to present new home owners with a copy.

BLACKHAWK

A LOW COST, MOBILE TRENCHHOG VERSATILE, TRENCHER

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

- · Depths accurately controlled, hydraulically.
- Cutters furnished in 6" to 20" widths. Easily changed to suit the job. Special cutters for tough soils and frozen ground.
- · Optional equipment includes one side dirt delivery attachment to deposit spoil on either right or left side of trench.
- · Crumbers available to provide clean, smooth, accurate trench bottom.
- · Choice of 7 digging speeds.
- Independent wheel control for straighter line trenching and turning corners.
- Boom raises upward about 90° for transport.
- · 4' bulldozer available for backfilling.

THOUSANDS IN USE-EVERYWHERE



NEW HOLSTEIN, WIS.

PRODUCTS FOR BETTER FARMS BETTER INDUSTRIES SINCE 1920

NEWS_

G. Yates Cook Joins NAHB

G. Yates Cook, promoter of the "Baltimore Plan" for slum clearance, and a leader in the fight against big city housing blight, has joined the National Association of Home Builders staff as head of the new Department of Urban Redevelopment.

Cook resigned in February as director of the Housing Bureau of the Baltimore Health Department. His new appointment, effective April 1, was announced by NAHB president Emanuel M. Spiegel. In his new role, Cook will direct a nation-wide campaign by private builders to wipe out the slums and rebuild the run-down areas of every American city.

NAREB Seeks Amendment To Protect Home Ownership

A Constitutional amendment to protect the ownership of homes and enterprises against encroachment by government is being sought by the National Association of Real Estate Boards, according to Charles B. Shattuck, Los Angeles, president, in a recent speech at the annual brokers' conference of the Chicago Real Estate Board.

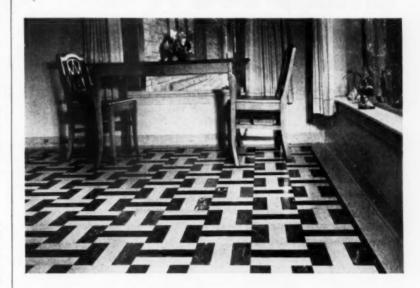
Unlimited government spending and taxation which kills incentive and prevents the accumulation and reinvestment of capital is a serious threat to the national economy, he said. The NAREB seeks to guard against future repetition of the "borrow, spend and tax" system which could lead to eventual total socialization. The Association urges a Constitutional limitation upon the spending and borrowing powers of our federal government.

"We would further protect and guarantee the rights of our people in the ownership of their homes, their properties, and their enterprises against encroachment by government by Constitutional amendment, prohibiting the government from engaging in professional, industrial and commercial activities in competition with its citizens," Shattuck declared.

NAHB Wins Award

A "Certificate of Achievement" for their widespread public relations and educational program was awarded the National Association of Home Builders by the American Public Relations Association at its 8th Annual Convention. Thomas J. Deegan. Jr., of APRA Judges Committee presented the Certificate to John M. Dickerman, NAHB executive director and Conrad "Pat" Harness, NAHB public relations director at an award ceremony in Washington.

Put your money into selling features like this...



floors of WRIGHT RUBBER TILE help you sell houses.

Put your money where it shows ... and what is more eye catching than a floor of Wright Rubber Tile? Its high quality is instantly recognized and will give the prospective buyer the extra confidence needed to close the sale.

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G.E's New 24" and 36"

...Simplify kitchen layout...helps you add clientpleasing extras...helps you keep equipment costs down.

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- Smaller basic units . . . add counters, storage space, appliances and other "client-pleasing" extras.
- ★ Low-priced—to help you keep down equipment costs.
- ★ Automatic electric G-E Full-Scale Cooking . . . for the first time in this size range.

Here are the first great new designs from the new range factory at Appliance Park in Louisville, Ky., which is producing General Electric exclusively.

The new Spacemaker ranges are being built with the most modern manufacturing equipment available, with the newest, most exacting quality control techniques. This is your assurance of customer satisfaction.



24 INCH Spacemaker

3 different models and prices.

Fits compact kitchen. Or, with 15-inch base cabinet takes same space as full-size electric range. Also lets you put surface units at right or leaves room for storage, washing machine, etc. HAS THESE IMPORTANT G-E FEATURES: Pushbuttons. Meal-for-18 oven. 4 full-size surface units—one Extra-Hi-Speed. Automatic Oven Timer. Removable drip trays. Storage drawer. Porcelain enamel finish.

De luxe model J-244 with fluorescent lamp and Oven Timer \$229.95*

Model J-244 without fluorescent lamp and Oven Timer \$194.95*

Model J-242 same as above with three top-of-range units, without appliance outlets and storage drawer \$179.95*

See your G-E supplier for details.

*Manufacturer's recommended retail price.

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Big Capacity Ranges

...Have pushbuttons, a huge de luxe all Calrod® oven; big surface cooking capacity...features women want.

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4 full-size Calrod surface units . . . one Extra-Hi-Speed. Self cleaning. Hinged—so drip pans can lift out. G-E "Speed Cooking" is fast, economical . . . it can help you sell houses,



36 INCH Spacemaker

3 different models and prices.

If your plans call for a 36-inch range, here's the de luxe G-E "Speed Cooking" Range for you. Same size as many gas stoves. HAS THESE IMPORTANT G-E FEATURES that make a hit with prospects: Pushbuttons. Meal-for-18 oven. 4 full-size surface units—one Extra-Hi-Speed. Automatic Oven Timer. Removable drip trays. 3 big storage drawers. Fluorescent lamp. Porcelain enamel finish.

De luxe model J-364 \$254.9

Model J-362 without fluorescent lamp and Oven Timer

\$219.95

Model J-361 same as above, without two bottom storage drawers \$199.95*

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*Manufacturer's recommended retail price.

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NEWS

New York State Readying Multiple Dwelling Code

The New York State Building Code Commission, which last year introduced its statewide performance code for one and two-story dwellings. expects to issue a similar code late this fall for multiple dwellings.

George Bain Cummings, vice chairman who made the announcement at the commission's recent third annual conference for municipal officials, said the proposed code had been sent in its preliminary form to some "40 selected experts" for critical analysis, after which it would be submitted to all municipalities in the state.

The schedule, he continued, then calls for a "pre-final" draft of the code to be considered this summer at public hearings in New York and Syracuse. The final draft is to be submitted to the legislature in November.

Sixty communities have so far resolved to operate under the state code for one and two-family dwellings, according to Edward J. McGrew Jr., chairman. He said 36 of them had previously had no building regulation in force, while the others had either a local specification-type code or a "fragmentary" regulation under which building permits were issued. Largest area to adopt the code so far is Binghamton, a city of 81,000 permutation.

The State Commission feels Binghamton's acceptance of the code is significant. Heretofore, most of the communities using it were rather small and had never had a code. Binghamton has had a local code since 1934. Its mayor, Donald W. Kramer, said "There have been many changes in construction methods since 1934 when Binghamton adopted its present local code. We are now

taking steps to insure that this city will keep abreast of the latest technical developments in the building industry."

By giving recognition to generally accepted standards of construction instead of rigidly specifying methods of compliances, the performance code is reported to adjust itself automatically to technical advances and research in materials.



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Los Angeles Honors Cortright At Testimonial Dinner

Construction of more low cost homes, improved selling methods and easier financing for buyers are the three principal factors required to keep the nation's home building industry moving at full speed, according to Frank W. Cortright, retired executive vice president of NAHB.

Cortright spoke at a testimonial

dinner in his honor held by the Building Contractors Association and Home Builders Institute, at the Ambassador Hotel, Los Angeles. He warned builders that unless private industry produces a higher volume of low-cost rental and sale housing, the new administration in Washington may take steps of which the housing

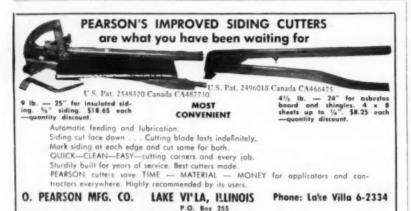


Frank W. Cortright reading testimonial letter at banquet in his honor; Irving C. Jordan, BCA president and K. Sande Senners, HBI president look on

industry may not approve to meet this housing need.

The former NAHB head stressed the need for cooperative effort between builders, sub-contractors, labor, lenders and suppliers to produce more minimum housing units through private enterprise for those in low income brackets.

Now engaged in private enterprise in Northern California, Cortright has expressed his intention to live in the state permanently, while maintaining an active participation in the construction industry.



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American Cancer Society



Michigan Home Builders Hear "Dick" Hughes At State Convention

Guest Speaker, NAHB First Vice President Richard G. Hughes, at the Michigan State Convention took verbal punches at the new administration for its slowness in meeting various housing problems.

Hughes also appealed to builders to use a one year warranty before the government makes it mandatory. Hughes believed that if all builders would adopt the NAHB program they could forestall any unrealistic guarantee program controlled by

government Michigan Home Builders elected Le Roy C. Lutz of Flint president. His first vice president is Donald Cederlund of Grand Rapids. Other vice presidents are: Orrin Weatherill, Flint; Herman Roth, Ann Arbor; Robert Nelson, Detroit: and Vick Hines, Kalamazoo, Secretary is Bob Gove of Battle Creek: treasurer is Walter Neller of Lansing.

Convention Highlights

The three day convention was packed with useful information for

Michigan builders. Included were a trade secrets panel and authoritative discussions on design, taxes, planning, and better sales methods. Nationally prominent figures in the building industry took part in many of the panels.



Charles A. Bowser, John D. Harrison and J. L. Zar judging the model contest. On the far right is M. F. Borgman of Flint who co-ordinated the state wide contest

Winners of the state model contest sponsored by the state association and Michigan State College were announced at the convention. A 13 year old girl, Elaine H. Walker of Flint won the major \$200 award. Past President of the state association John D. Harrison of Detroit, Charles A. Bowser of Lansing and American Builder Field Editor J. L. Zar judged the models

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of pilable material as indicated. Slide into case under tape. Insert pin as indi-out tape to radius desired. Insert sharp rivet hole and draw your arc.

Contest winner Thomas Ryan of Stone St., New Hamberg, N. Y. re-quests a "Guardsman word rule for his successful entry.

TO ESTIMATE HEIGHT OF TREE OR POLE

Place a mark on the object to be measured 6 ft. from ground. Now back eff until this 6 ft. mark coincides with the 1" m rule. Using 1 ft. to 6" ratic as guide measure approximate height.

Richard Baudeck of Buhl, Minne-sota, has a dandy entry. He asks for a Tufboy.

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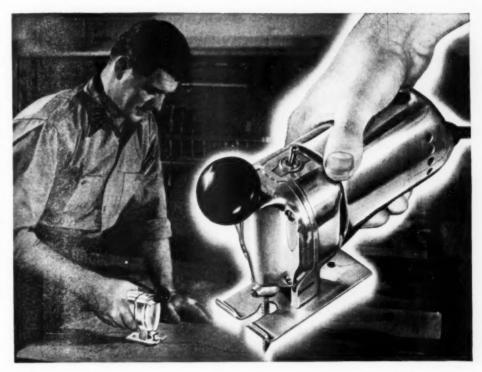
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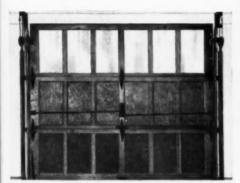
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